

Indigenous Peoples' Livelihoods and Emerging Bush Produce Industries – Recent Experiences from Australia's Arid Zone



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Please note:

It is customary among many Aboriginal groups not to use the name or image of a deceased person for a period of time following their passing. In the following **text, deceased persons are indicated by '(dec.)'**. Readers of this thesis should show caution in displaying the images or saying the names of the deceased as it may cause sadness and distress for some family members.

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Abbreviations/Acronyms

AAFC	Australian Aboriginal Food Co. Ltd.
AARD	Aboriginal Affairs and Reconciliation Division (SA)
ABS	Access and Benefit Sharing
AFTP	Agroforestry Tree Products
ALRA (NT)	Aboriginal Land Rights Act (Northern Territory) (1976)
ANFIL	Australian Native Foods Industry Ltd.
APY	Anangu Pitjantjatjara Yankunytjatjara
ARRI	Aboriginal Rural Resources Institute
ATSIC	Aboriginal and Torres Strait Islander Corporation
AZRI	Arid Zone Research Institute (Alice Springs)
BCPs	Bio-Cultural Protocols
CAT	Centre for Appropriate Technology (Alice Springs)
CBD	Convention on Biological Diversity
CDEP	Community Development Employment Projects program
CDU	Charles Darwin University
CIFF	Coles Indigenous Food Fund

CITES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
CLC	Central Land Council
COICA	Coordinating Body of Indigenous Peoples of the Amazon Basin
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEET	Department of Employment, Education, and Training
DEEWR	Department of Education, Employment and Workplace Relations
DEH	Department for Environment and Heritage (SA)
DFEEST	Department of Further Education, Employment, Science and Technology (SA)
DFID	Department for International Development (UK)
DKA	Desert Knowledge Australia
DK-CRC	Desert Knowledge Cooperative Research Centre
DPIFM	Department of Primary Industry, Fisheries, and Mines (DPIFM) (NT)
FAO	Food and Agriculture Organization
FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs
FNDI	First Nations Development Institute
FPW	First Peoples Worldwide
FSC	Forestry Stewardship Council
FTF	FairTrade Federation
IAF	Indigenous Australian Foods Ltd.
IBA	Indigenous Business Australia
ICC	Inuit Circumpolar Council
ICC	Indigenous Coordination Centre
ICH	Intangible Cultural Heritage
ICIP	Indigenous Cultural and Intellectual Property
ICTs	Information and Communication Technologies
IDS	Institute for Development Studies
IEDS	Indigenous Economic Development Strategy
IEMP	Indigenous Entrepreneur Microenterprise Program
IFOAM	International Federation of Organic Agriculture Movement
IGC	Intergovernmental Committee
IKEC	International Kava Executive Council
ILC	Indigenous Land Corporation
ILCs	Indigenous and Local Communities
INCRM	Indigenous Natural and Cultural Resource Management

IIPRs	Indigenous Intellectual Property Rights
IPRs	Intellectual Property Rights
ISO	International Organization for Standardization
IUCN	International Union for the Conservation of Nature and Natural Resources
LED	Local Economic Development
MOU	Memorandum of Understanding
MDGs	Millenium Development Goals
NAILSMA	North Australia Indigenous Land and Sea Management Alliance
NGO	Non-Governmental Organisation
NHMRC	National Health and Medical Research Council
NIFS	National Indigenous Forestry Strategy
NPY	Ngaanyatjarra Pitjantjatjara Yankunyatjara
NRM	Natural Resource Management
NTFPs	Non-Timber Forest Products
PAR	Participatory Action Research
PBRs	Plant Breeders Rights
PCS	Production to Consumption System
PIRSA	Dept. of Primary Industries and Resources of South Australia
RBA	Rights-Based Approach
RCIADIC	Royal Commission Into Aboriginal Deaths In Custody
RIRDC	Rural Industries Research & Development Corporation
SCI	Social Capital Initiative
SLA	Sustainable Livelihoods Approach
TEK/IK	Traditional Ecological Knowledge/Indigenous Knowledge
TO	Traditional Owner
TRIPS	Agreement on Trade-Related aspects of Intellectual Property Rights
TWT	Tjutjunaku Worka Tjuta Inc. (Ceduna)
UNDP	United Nations Development Programme
UN DRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNFF	United Nations Forum on Forests
VET	Vocational Education and Training
WCED	World Commission on Environment and Development
WCIP	World Council of Indigenous People
WIPO	World Intellectual Property Organization
WRM	World Rainforest Movement

Preface

Diary of a PhD

17.10.2007

If anyone read last weekend's Weekend Australian newspaper, page 21 ran an article on the "myth of the ecological Aborigine".* This article claims conservationists are "trapped in wishful thinking about the wisdom of the Elders", pointing to the so-called blind optimism with which Indigenous ways have been touted as templates for living sustainably. The author's conclusion is that there are no models for sustainable living on this planet and (rather naively) believes we must simply make it up as we go.

In contrast, I believe the secret to global sustainability lies in practices and knowledges that are based on thousands of years and generations of trial and error. We simply don't have the time to reinvent experience – rather, the answers lie in mutual respect, better communication, knowledge sharing, and (often) humble re-evaluation of ecological landscapes and our place in them. Working together at all levels to foster a better understanding of and relationship with one another as well as the planet on which we all live – now wouldn't that be a more sustainable approach?

*(Lines, W.J. 2006, *Black and White Lies*, Oct. 14-15, The Weekend Australian)

Before reading this thesis, it would be useful to view the accompanying DVD that was put together by women Elders of the Anmatyerr Community of Laramba, Central Australia: Kitty Peltharr Gibson, Launce Penangka Campbell, Janie Mpetyane Briscoe, Amy Peltharr Stafford, and Daisy Peltharr. The DVD contains the story of their involvement in a bush produce industry – jewellery-making from native seeds and beans. The story is told through a series of photographs describing the process from tree to store, and is narrated in Anmatyerr. For an English-language version of the process, please refer to the Laramba Bush Beads brochure in **Appendix 1**. This story is now used at Laramba community school, where the young women in the **Senior Women's Class** are also making jewellery and using the DVD as a language and culture resource.

The DVD and accompanying brochure capture **the essence of the women's bush produce** industry involvement – their motivation, benefits, talent, creativity, cultural knowledge, inspiration, passion, enjoyment, and immense pride. These elements are common across the case studies described in this research project and are best understood from the people

themselves. As a 'cultural outsider', I have tried to provide a space where people's own words and experiences can be expressed, although the overall theoretical analysis and conclusions are my own.

I would like to acknowledge and warmly thank the owners of the stories contained within this thesis as the rightful experts in their respective fields of knowledge and experience. A PhD qualification pales into insignificance in comparison to the many generations of knowledge held by the people and Elders I have been privileged to learn from and work alongside. I submit this thesis in the hope that their knowledge and expertise are given the formal recognition and respect they so rightly deserve in the development of bush produce industries that are based on their Traditional and Indigenous Knowledge.

Abstract

*Our mob, we've got such rich links that need to be acknowledged. And something has to come back to those people to help them keep going, because they're the ones who first gave that information out to whitefellas. They have to get some recognition for their knowledge and **what they've done, and for sticking it out for so long. Those wild harvesters have been doing what they do for so long, and for supporting the industry, and going out and harvesting. Who would be anywhere now (if it weren't for them)...nobody! That's why you need to respect them! Nobody else would've run out and done all the back-breaking stuff, you know.***

(Rayleen Brown, *KungkasCanCook* catering, Alice Springs)

This thesis details the experiences of Aboriginal people involved in a variety of bush produce industries in **Australia's arid zone, focusing** on effects to their livelihoods and well-being, and assessing ways in which benefits can be maximised, and risks minimised to ensure the development of a socio-culturally fair and equitable industry. It is centred on four case studies in central and southern Australia, where Aboriginal people are engaged in a range of activities and enterprises involving use of native plant produce for bush foods, medicines, and seeded jewellery.

The overall process and methodology were informed by a Sustainable Livelihoods Approach (SLA) to development, with the central hypothesis of the thesis being that a rights-based SLA is needed to enhance the development of a socially just, environmentally and culturally sustainable, and equitable, bush produce industry for the Aboriginal people in Australia's arid lands. This PhD research concurs with previous research showing the primary incentives for **Aboriginal people's** involvement in such industries are socio-cultural, rather than purely economic.

Bush produce enterprises are based on a knowledge economy and the marketing of cultural heritage. Traditional Ecological Knowledge/Indigenous Knowledge (TEK/IK) is the basis of such enterprises and is fundamental to sustainable Aboriginal involvement and livelihood benefits (UNESCO, 1995). Producers have cultural rights and responsibilities that need to be respected and protected, and they require information in order to be able to make informed decisions about enterprise involvement and development. In this sense, culture is an asset which can significantly strengthen livelihood sustainability and there is a corresponding need to build **Aboriginal people's capacity and performance in these industries through a focus on culture,** capability, commitment, and connections (Hagan, 2005; Sen, 1997; Nussbaum, 2000, 2011).

Through the lens of the case studies and the diverse experiences of the research participants, the thesis identifies a number of key factors that need to be considered in the development of an Arid Zone bush produce industry that is socio-culturally just and beneficial to local Aboriginal livelihoods and well-being. These factors range from ensuring local engagement and agency in knowledge protection and management, through to the need for an innovative national policy approach recognising that diverse culture-based hybrid economies are the “real” economy in remote Australia (Altman, 2003, 2009; Altman, Buchanan and Biddle, 2006; Martin, 2006; Hunt, 2011). Additionally, an argument is made for aligning industry development with the UN Declaration on the Rights of Indigenous Peoples (UN DRIP, 2007).

*The bushfoods industry is reliant on cultural knowledge, it's reliant on people who are interested and have the skills and the knowledge and the motivation to do really hard work, and it's done under difficult conditions, but people do it. I always laugh when I hear the thing of people are lazy or they don't like to work... Well, you go out on a harvesting trip and you see who's lazy and who's not motivated to work! But, it's a **type** of work. (Not all) people aspire to have 9-5 jobs and be at a desk, at a computer-based job. Whitefellas just can't get their head around it! ...They all need the experience of keeping up with a 70-year-old!*

(Josie Douglas, Indigenous Research Fellow, CDU Alice Springs)

Signed Declaration

I declare that:

- this thesis presents work carried out by myself and does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university;*
- to the best of my knowledge it does not contain any materials previously published or written by another person except where due reference is made in the text; and all substantive contributions by others to the work presented, including jointly authored publications, is clearly acknowledged.*

Signed: April, 2012

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I sincerely wish to thank everyone who was involved in the research process. I have met so many wonderful and inspiring people over the past four years! I warmly thank all who took the time to speak with me, to share their experiences, to communicate their hopes and fears. I hope this document may help bring about the changes you desire.¹

For their financial and educational support, I thank the University of South Australia and Desert Knowledge Cooperative Research Centre (DK-CRC). The University provided access to a vehicle and DK-CRC provided a scholarship and funds for travel that enabled me to meet and work with Aboriginal people living in various remote regions of desert Australia. The funds also meant I was able to travel internationally during my research, to Indonesia and India, providing me an invaluable chance to enrich my experience and understanding of sustainable livelihoods and well-being in an international context. It was an incredible and unforgettable experience – thank you.

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I was privileged to meet and work with many Aboriginal people and Elders living in remote communities during the course of my research. I thank everyone for their time, patience, and sense of humour – so important when travelling long dusty roads! I wish you all the best in your respective enterprises. A special thank you to the Laramba Beading Ladies who allowed me to sit on their verandas for five months and whose beauty and strength are reflected in their jewellery.

¹ Please note: where names appear in this thesis, I have been granted permission to include that person's name.

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Chapter 1: INTRODUCTION

1.1 Background: From desert to bush industry

1.1.1 Australia's arid lands

A man can only be free in the desert
(Arab proverb; cited in Griffiths, 2006; p. 224)

Deserts cover approximately a quarter of the Earth's land surface (Desert Knowledge Australia, n.d.). These areas receive less than 250mm of precipitation annually, yet are home to a considerable amount of vegetation and a diverse range of peoples and wildlife that have adapted to life in an arid environment.

The word 'desert' derives from the Latin 'desertum', meaning "an abandoned place", but more than **one sixth of the world's population**, over one billion people, live in desert regions (Safriel, Adeel, Niemjeijer *et al.*, 2005). Although the population density may be sparse, desert dwellers are often highly mobile, adapting and balancing their lifestyle and livelihoods (like that of the wildlife) to contend with generally limited resources intermittently interspersed with rich patches (McAllister & Stafford-Smith, 2006).

The arid and semi-arid areas of Australia comprise approximately 70 percent of its 7.7 million square km (Taylor, 2002), as shown in **Figure 1**. Average daily summer temperatures range from 37-39 degrees Celsius, and average annual rainfall varies between 110mm around Lake Eyre to 300-450mm on the margins. Rainfall is very sporadic and locally isolated, with droughts being the norm. The Australian arid zone is usually defined as areas receiving 250mm or less, while the semi-arid zone usually receives an average of between 250-350mm (<http://www.desertknowledgecrc.com.au>).

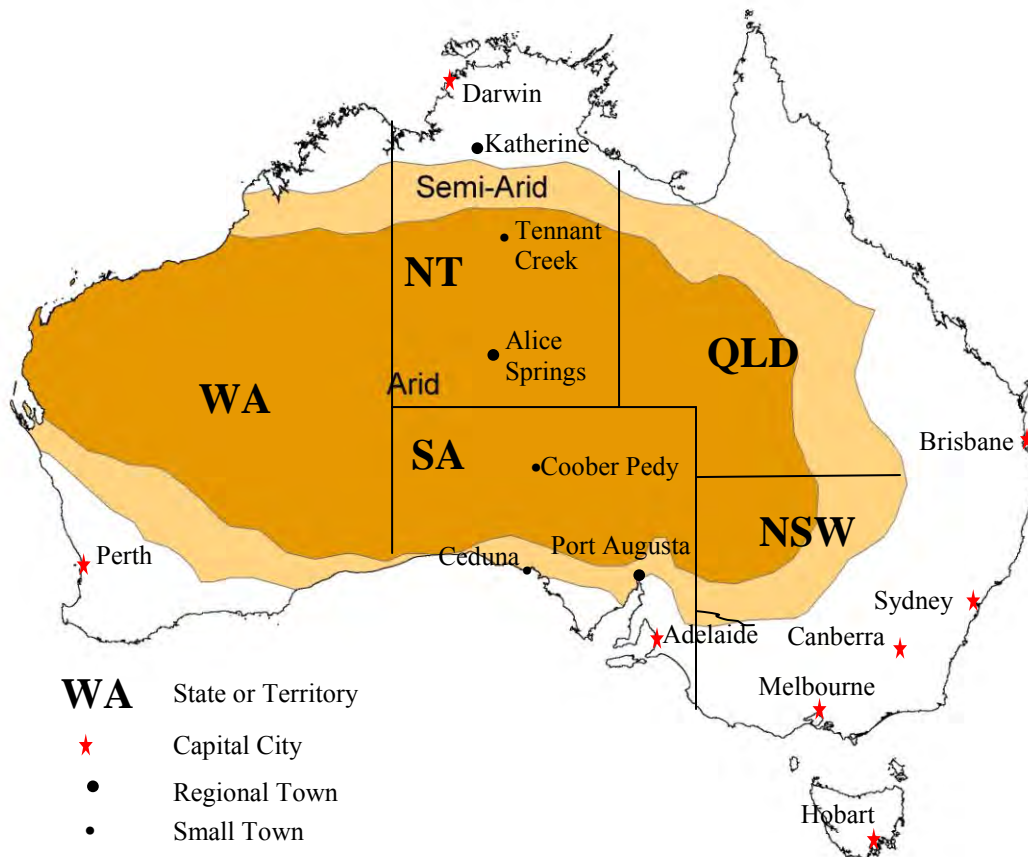
The arid zone contains a series of regional towns with populations between 10-30,000 persons (incl. Alice Springs and Port Augusta), approximately seventeen small towns of between 1000-3500 persons (incl. Ceduna, Coober Pedy, and Tennant Creek), 144 localities of between 30-1000 persons, and 270 communities of less than 30 persons (Taylor, Brown & Bell, 2006)¹ (ref.

¹ Note: Altman (2011) cited 1200 „discrete Indigenous communities’ (ref. ABS, 2001) across the entire Indigenous estate, with population totals around 100,000 people or 20% of the total Indigenous population. He explained that

Figure 2). During the period of field work undertaken for the PhD, approximately 93,000 Aboriginal people were living in Australia’s arid and semi-arid regions (referred to collectively as ‘(the) Arid Zone’ from here on), which constituted around 15% of a total 630,000 Australian desert dwellers (Davies & Holcombe, 2009). The population is highly mobile, with mobility in the Aboriginal population being mainly circular within the desert region (Memmott, Long, & Thompson, 2006), and mainly between the desert and coastal cities in the non-Aboriginal population (Stafford-Smith, 2008).

Figure 1: The arid and semi-arid lands of Australia.

(Adapted from: http://www.desertknowledgecrc.com.au/desert_information/desertmaps.html)



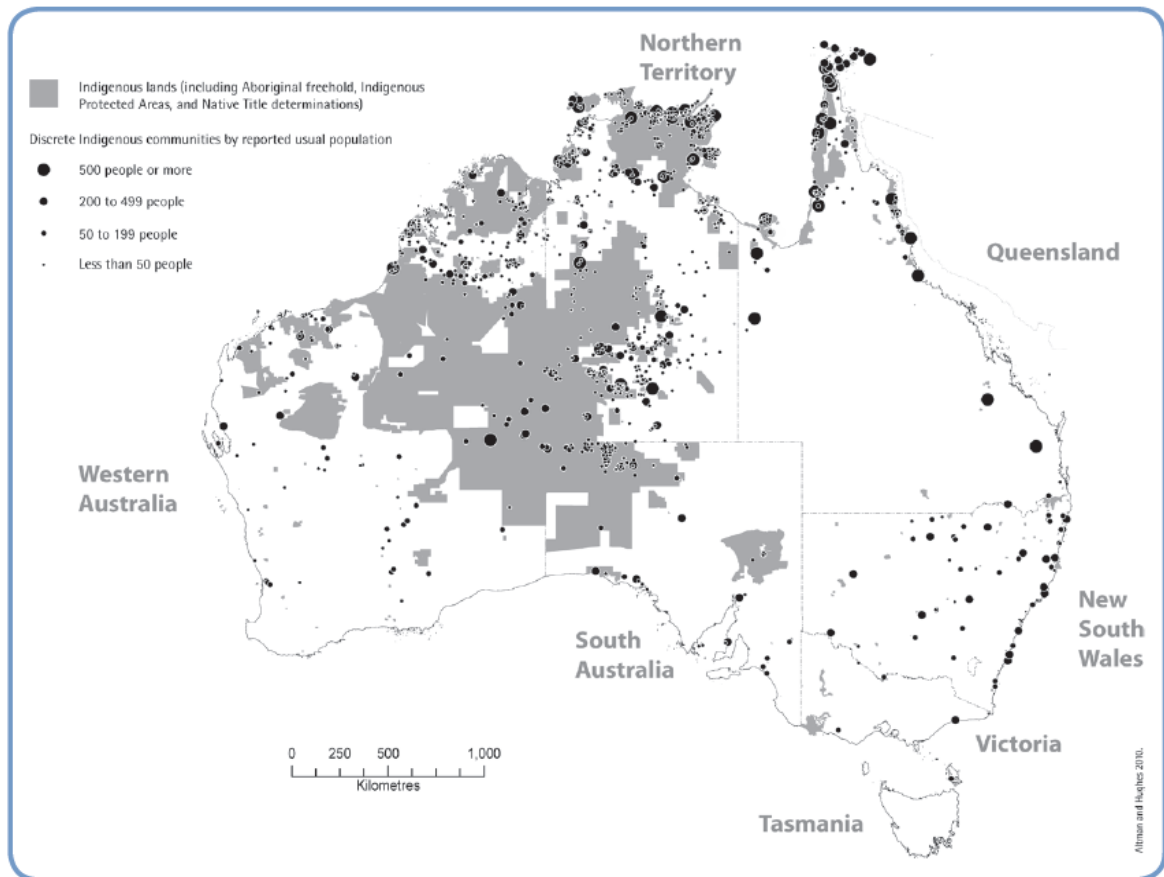
The Indigenous estate, comprising Indigenous lands held under various land rights legislation² and Native Title³ agreements, covers approximately 1.7 million sq kms or 22 percent of the

the larger communities are called townships, and were historically government settlements and missions; while the smaller communities are often called homelands or outstations, living areas, or pastoral communities (p. 2).

² The *Aboriginal Land Rights (Northern Territory) Act 1976* was the first attempt by an Australian government to legally recognise the Aboriginal system of land ownership and put into law the concept of inalienable freehold title (CLC, n.d.). (ref. *Aboriginal Land Rights (Northern Territory) Act 1976*, http://www.austlii.edu.au/au/legis/cth/consol_act/alrta1976444/)

Australian continent (Altman, 2011; ref. **Figure 2**). This land is granted under inalienable title, and in desert Australia, many Aboriginal people live in remote locations where built and industrial infrastructure is scarce. As Whitehead, Gorman, Griffiths *et al.* (2006) wrote, systems of land ownership and custodial responsibilities for land and resources tend to constrain mobility (to certain regions) and reduce capacity to match labour availability to (conventional) employment opportunities. As a result, many Aboriginal people living in remote locations depend substantially on government welfare or, until recently, schemes like the Community Development Employment Projects (CDEP) program to engage with the market economy.

Figure 2: Indigenous estate and discrete Indigenous Communities.
 (Source: Altman, 2011; p. 2)



The CDEP scheme's original objectives were to reduce the adverse effects of unemployment and welfare dependency, to help strengthen communities, and to promote self-determination

³ The Native Title Act 1993 is a common law doctrine which formed part of the Commonwealth's response to the Australian High Court's decision in *Mabo v Queensland (No. 2)*. The Act accepts and confirms the rejection of the myth that Australia was *terra nullius* (land belonging to no-one), and the recognition and protection of native title (see sections 3 and 10). „Native title' is defined as the rights and interests that are possessed under the traditional laws and customs of Aboriginal and Torres Strait Islanders in land and waters, and that are recognised by the common law (section 223) (AGS, 1994). (see *Native Title Act 1993*, http://www.austlii.edu.au/au/legis/cth/consol_act/nta1993147/)

and cultural maintenance (Commonwealth Parliamentary Debates, House of Representatives, 26th May 1977). In 1985, the Miller Report reviewed the CDEP scheme and advocated a greater emphasis be placed on self-sufficiency for remote communities through the development of a broader economic base that recognised the importance of non-market/customary production to local livelihoods. In response to this report, the Aboriginal Employment Development Policy proposed the recognition of traditional activities as legitimate employment for the 7% of people who then lived on their traditional lands (Commonwealth Of Australia, 1987).

Since the time of these original suggestions to recognise and support the Indigenous customary economy, there has been no further mention made (Dockery and Milsom, 2007), and in recent years, the federal government has instead increasingly focused the CDEP objectives onto unsubsidised employment outcomes (DEWR, 2002). Recent government policies have seen the cessation of funding to small communities deemed to not be **“economically viable”** (Vanstone, 2005; Brough, 2006), and this has occurred through the phasing out or abolition of CDEP, the removal of the Remote Areas Exemption⁴, and a moratorium on outstation housing.⁵ All these combined have forced many Aboriginal people to move into service centres (Aboriginal and Torres Strait Islander Social Justice Commissioner, 2005; Kerins, 2010).

Focussing on the low income and work hours available to those on the program, combined with the low rate of transition into mainstream employment, critics of CDEP argued that the scheme represented a **“poverty trap”** (Marcia Langton, cited in Biddle, 2004; Rothwell, 2009). However, over the years CDEP has allowed an increasing number of Aboriginal people in remote regions to engage in natural resource management activities promoting health and well-being and micro-enterprise development based on IK/TEK (Whitehead *et al.*, 2006; Kerins & Jordan, 2010), with increased bush produce⁶ commercialisation potentially becoming an important

⁴ Remote Area Exemption (RAE) is an exemption from activity testing that can be applied to income support recipients living in areas where there is no locally accessible labour market, vocational training course and labour market programme (*Social Security Act 1991, s601 (2) and s603 (2)*). RAEs are currently being removed in areas where CDEP places are available and/or other locally accessible courses or programmes are deemed to exist (ref. www.workplace.gov.au).

⁵ The term ‘outstation’ (or ‘homeland’) is used to refer to a “small, decentralised community of close kin, established by the movement of Aboriginal people to land of social, cultural, and economic significance to them” (House of Representatives Standing Committee on Aboriginal Affairs, 1987; p. 7). Outstations/ homelands are the ancestral homes of specific groups, connecting individual, social and spiritual identities with specific areas of country (Socom + DodsonLane, 2009). Recent federal, state, and territory government policies have limited the resources and support for outstation/homeland communities, instead prioritising major settlements and promoting economic self-sufficiency on outstations/homelands (ref. DHLGRS, 2011). A moratorium on new housing on outstations/homelands became entrenched in 2007 with the recommendations of a review of the Community Housing and Infrastructure Programme (CHIP) (FaHCSIA, 2007) (see also Marks, 2008).

⁶ The term ‘bush produce’ is primarily used within this thesis to refer to indigenous plants or plant products (i.e., not animals) that have some current or potential commercial value (including subsistence and internal trade), or can be used in the production of something with commercial value. Bush produce (plants) typically includes seeds, fruit,

component of a diverse livelihoods base (Altman, 2001). **'Typical' livelihood portfolios found** across the Arid Zone region have included a veritable mix of:

- Local wage employment (most often in CDEP positions, although some people are employed in community stores, schools, clinics, family and aged care centres, or childcare centres)
- Government social security payments
- Micro-enterprise activities (incl. tourism, art and bush produce)
- Subsistence hunting and gathering
- Transfers between family/kin (incl. money and subsistence foods)
- CDEP top-up⁷

CDEP wages and top-up wages, in particular, have proved important in underwriting training and activities related to bush produce enterprise development. In comparison, changes to the CDEP program that will eventually see all participants transferred onto income support payments, do not bode well for furthering sustainable development goals (Kerins & Jordan, 2010; Hunt, 2011), particularly in remote locations (Kerins, 2010).

Stafford-Smith (2008) championed support for the endogenous innovation based on the ingenuity of people who live the desert experience, while recognising **the value of "sympathetic outsiders" in helping create an amenable policy context**. Writing of the *desert syndrome*, whereby causally-linked factors make desert Australia different from the temperate regions where most scientific and economic research and development has historically been based, Stafford-Smith pointed to an array of *desert drivers* that appear to control desert environments, including: climate variability and rainfall; low fertility and scarce resources; patchy populations; limited research knowledge; greater significance of local or Indigenous knowledge; distant and unpredictable markets; differing peoples, cultures, and institutions; plus, a range of external drivers like globalisation, social changes, and global environmental changes. He suggested that while such factors are often considered **'constraints'**, they can also be viewed positively "from a desert perspective".

timber, foliage, roots, tubers, and bark, which can be processed to make products that are edible or are useful in some other way. Most bush produce from the arid and semi-arid regions of Australia is traditionally known and used by Aboriginal people, and potential value on external markets is often based on the uses to which it is traditionally put and the knowledge that underpins such uses (Morse, 2005).

⁷ The standard CDEP wage is based on two days (14 hours) of community-oriented work per week, with the possibility of top-up funds providing additional income for up to four days per week.

Still, distribution of Indigenous land in Australia is generally negatively correlated with opportunities for (recognised) market economic production, other than through mining (Davies, Moloney, Gambold, & Edwards, 2006). And, while contemporary federal and state interest in the massive economic (i.e., monetary) gains to be made from the extraction of natural resources on Aboriginal lands within the Arid Zone has meant jobs and training for some Aboriginal people (e.g., Arbib & Hurley, 2011), traditionally-based sustainable resource use and management is often challenged and/or compromised [e.g., through Indigenous Land Use Agreements (ILUAs)⁸].

Changes to traditional Arid Zone land management practices, particularly the use of fire, have caused great environmental changes, including loss of species diversity (Vaarzon-Morel, 2006). In the past, fire played an important role in the regeneration of Country with a positive effect on Aboriginal livelihoods, including cultural assets, and bushfood availability (Latz, 1995). Speaking on Aboriginal burning issues in the Southern Tanami Desert in central Australia, Vaarzon-Morel (2006) reported that 80-90% of the Tanami is no longer being burnt, which is having a negative effect on plant diversity (*ibid.*). Changes in contemporary Aboriginal lifestyles, as well as pastoral and conservation land use practices have altered fire use and management objectives over the years (Edwards, Allan, Brock *et al.*, 2008). In addition, large wildfires also periodically threaten regional biodiversity, including cultural and natural resources (Latz, 1995).

Latz (1995) recorded the long-term effect of fire on fruit production of *Solanum central*, an Arid Zone bushfood commercially referred to as 'desert raisin' or 'bush tomato'. Over a period of eight years, Latz observed the fruit production of a plant colony decline from 20kg during the **first growth season after bushfire, to no fruit and plant death. He concluded that "the judicious use of fire was, in the past, the single most important aspect of the desert economy" –** increasing the food quality, reducing the effort required to harvest, influencing the distribution of food plants, and increasing the chances of finding them (p. 22).

Within this context, enterprises based on local bush produce offer not only alternative pathways to Arid Zone economic development, but they also rely on land management practices that are conducive to socio-cultural and environmental sustainability and health.

⁸ The Commonwealth *Native Title Act* 1993 provides for Indigenous Land Use Agreements (ILUAs) between native title holders or claimants and other interested parties about how land and waters in the area covered by the agreement will be used and managed. In regards mineral exploration, the ILUA sets out the consent of the parties to the grant of exploration tenements and the carrying out of exploration activities under those tenements. (see Native Title (Indigenous Land Use Agreements) Regulations 1999 No. 335, available at: http://www.austlii.edu.au/au/legis/cth/num_reg_es/ntluar19991999n335556.html)

1.1.2 Australian bush produce industry development

Before European settlement, Aboriginal Australians ate rich, exciting and balanced diets of seasonal fruits, nuts, roots, vegetables, meats and fish – all indigenous varieties and species and each totally adapted to this unique environment, the continent of Gondwanaland. (Isaacs, 2002; p. 11)

The Indigenous peoples of this country have been living on its native foods for more than 40,000 years (Roberts, Jones & Smith; 1990), and possibly up to 130,000 years (Singh & Geissler, 1985). There are hundreds of edible native plant species (Ahmed & Johnson, 2000), many of them found in the arid zone of Central Australia. Latz (1995) listed over 140 edible plants in the arid zone that are still utilised as food. Over the last 20 years, commercial interest in some of these has increased. According to the Commonwealth Scientific and Industrial Research Organisation (CSIRO, 2006), there are now 10-15 commercially significant edible plants, of which four are native to the arid and semi-arid zones:

- bush tomato/desert raisin (*Solanum centrale*)
- wattleseed (*Acacia* spp.)
- quandong (*Santalum acuminatum*)
- desert limes (*Eremocitrus glauca*, *Microcitrus* spp.) (see **Figure 3**)

Indigenous Australian Foods Ltd. (IAF), a procurement company building joint venture partnerships between Aboriginal organisations and private enterprises, currently utilises 16 different native plants in their commercially manufactured/value-added products (Wayne Street, pers. comm., April 2006), while Mike and Gayle Quarmby of Reedy Creek Nursery in South Australia utilise produce from 25 edible native plants in their sauces and condiments (Mike Quarmby, pers. comm., June 2006).

Native Australian foods⁹ are being rapidly re-discovered as people look for alternatives to highly processed foods, often seeking ways to defer onset of dietary-related diseases such as diabetes (Brown & Haworth, 1997); scientists seek more environmentally-friendly alternatives to the

⁹ The Australian Native Foods Industry Limited (ANFIL) is the registered trade name of the Australian bushfoods industry. Bushfood or bush tucker are terms used to refer to native Australian fauna and flora traditionally used and enjoyed by Indigenous Australians for nutritional and/or medicinal purposes. The decision to promote the term „Native Foods’ instead of „Bush Tucker’ or „Bush Food’ was reportedly made according to marketability – i.e., a move away from the image of wild, „unrefined’ foods that would not necessarily appeal to the broader public (Morse, 2005), with the development of foods based on non-traditional use of ingredients also seen to warrant the new term (Mike Quarmby, pers. comm., Dec. 2007). However, others report the real selling point of native foods being in the „bushtucker’ label, particularly in regards overseas markets that associate Aussie actors like Paul Hogan with bushtucker (Jim Talladira, pers. comm., 8 Nov. 2007). I have chosen to use these three terms interchangeably throughout the thesis, as most Aboriginal people who took part in the research referred to their traditional foods as “bush tucker”.

negative impact of intensive agriculture on the natural environment and subsequent loss of biodiversity (RIRDC, 2001, 2008); and entrepreneurs and restaurateurs promote the uniquely Australian flavours of such healthy, organic, environmentally-friendly fare (Bruneteau, 1996; Cherkoff, 2000).

Figure 3: Some of the main Australian desert food species currently being commercialised in local, national, and/or global markets. From top left, in a clockwise direction: bush tomato/desert raisin (*Solanum centrale*) – ripe when yellow; bush harvested desert raisins (dried); wattleseed (*Acacia* spp.) – both whole and ground seed; quandong (*Santalum acuminatum*); desert limes (*Eremotocitrus glauca*) (CSIRO, 2006); commercial lime cordial and preserved desert limes.



Throughout Australia, many of the commercial species are now cultivated rather than picked from their natural environmental source, especially those found in the cooler climates of southern Australia (Wayne Street, pers. comm., April 2006). However, in the Arid Zone of Central Australia and the Tropical North almost all of the supply of bush produce to the national industry currently comes from wild harvested¹⁰ sources (Walsh, Douglas & Jones, 2006a,b).¹¹ Wild harvesting of bushfoods for commercial return has been occurring for approximately 30 years and in Central Australia it is mainly carried out by middle-aged and senior Aboriginal women, with estimates of 300-500 people having been involved in the commercial harvest over the last 5 years (*ibid.*). The main species commercially wild harvested in this region to date are the bush tomato/desert raisin (*S. centrale*) and seeds from various *Acacia* species. Other bush produce often harvested for both personal and commercial use include plants revered for their medicinal properties (esp. *Eremophila* species) as well as nuts and seeds that are used to make bush jewellery. Economic (dollar) value given to these foods, medicines, and craft pieces is in addition to significant socio-cultural value gained from customary use and enjoyment, which still plays an important role in local livelihoods (Douglas, Walsh & Jones, 2006; Walsh *et al.*, 2006a,b).

More recently, there has been increasing interest shown in the cultivation of bushfoods in the Arid Zone – both from an industry perspective and from Aboriginal individuals and communities. Allan Cooney, CEO of *Centrefarm Aboriginal Horticulture Pty. Ltd.*¹² said that many Aboriginal peoples looking to improve their livelihoods, particularly employment and income opportunities, are now becoming involved in the industry through more intensive cultivation practices (pers. comm., April 2006). He explained the importance of the social-economic link and the current enthusiasm shown towards involvement in the bushfoods industry by many Aboriginal Elders and Traditional Owners (TOs)¹³ as follows:

¹⁰ The term „wild harvest’ has been routinely used on an international scale to refer to the collection of bush produce from non-cultivated sources; however, perhaps it is more appropriate to use the term „bush harvest’ here in Australia, as many Aboriginal people feel the often negative connotation associated with the word „wild’ is inappropriate to describe an activity that is based around families and a concept of care and nurturing of the land. I have chosen to use the terms interchangeably throughout the thesis, as current reference materials, researchers, industry personnel, and many Aboriginal people still actively use both terms.

¹¹ Research estimates that 70% of bush tomatoes/desert raisins (*S. centrale*) and 100% of wattleseeds (*A. aneura*, *A. colei* & *A. coriacea*) are currently sourced from wild bush harvest in Central Australia (Walsh *et al.*, 2006a,b). In 2002, Hele reported that most desert lime produce was sourced from wild harvested stands on pastoral properties and 75% of quandong supplies were being met through wild harvest – although he also noted a parallel slow increase in cultivated quandong supplies.

¹² *Centrefarm* is a development company based in Alice Springs owned by Aboriginal corporations, designed to help set up, develop, and manage horticultural projects.

¹³ Under the *Aboriginal Land Rights (Northern Territory) Act 1976* (Cth) 'traditional Aboriginal owner', in relation to land, is a local descent group of Aboriginals who have common spiritual affiliations to a site on the land that place the group under a primary spiritual responsibility for that site and for the land. The group is also entitled by

TOs are currently very interested in rural economic development – they desperately want to participate in the economy of Australia, with the primary motivation being positive impact on their livelihood outcomes – including jobs/employment, housing, health care ... The push for horticultural production is seen as a possible way of meeting urgent social needs. Such an industry will help relieve unemployment and allow people to do traditional work (ibid.).

However, there are many questions around such industry development that have not been properly raised, let alone researched and answered. Assumptions made in Australia in regards to **'benefits' deriving from** involvement in the commercialisation of bush produce reflect the rapid growth of interest in non-timber forest products (NTFPs)¹⁴ among conservation and development organisations at the international level. The reality, however, is that *few Indigenous Australians to date have engaged successfully in commerce based on use of native plants* (Whitehead *et al.*, 2006; Morse, 2005), emphasising the need to better understand the **various factors affecting 'success', and indeed the measures by which successful** commercialisation is locally defined and understood.

What specific benefits does this industry offer that differ from those of current economic alternatives in the Arid Zone – including tourism, mining, pastoralism, and the Aboriginal art industry? Are there cultural and linguistic benefits arising from domestication and/or industry involvement through cultivation? How do such benefits compare with the socio-cultural benefits derived from customary harvest and commercial wild harvest? Is there any tension between wild-harvesters and horticulturalists? What about gender – i.e., are men benefiting more than women, or women more than men? Does age and/or traditional status play a determining role in participation? What happens when bush produce moves from being a staple of a subsistence economy to a product for commercial harvest? Surely such a move leaves Aboriginal control over the produce and subsequent benefits from commoditisation of cultural items at risk?¹⁵ These questions helped frame and formulate the specific research questions (presented in Chapter 2).

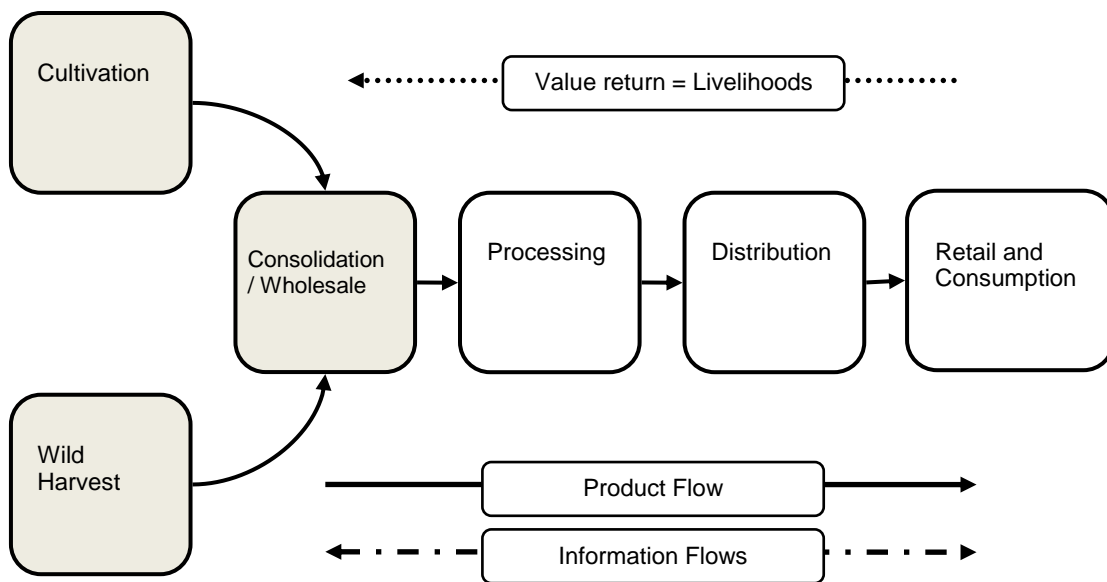
Aboriginal tradition to forage as of right over that land (Section 3: 24). This definition is, however, of a contested nature (Holcombe, 2004) and the complexity of this concept can be highly politicised (*ibid.*).

¹⁴ The term 'Non-timber forest products' is used to refer to all of the botanical (plant) and mycological (mushroom and fungus) resources and associated services of the forest other than timber, pulpwood, shakes, or other conventional wood products (Uni. of Victoria, 2006). "(They) may be extracted from natural ecosystems, managed plantations, etc., and be utilised within the household, be marketed, or have social, cultural, or religious significance" (Wickens, 1991; p. 3). This term is the most commonly used international equivalent to the Australian term 'bush produce'.

¹⁵ Note similar concerns with the Aboriginal Art movement, as often highlighted in the media (ref. Rothwell, 2006 and Fitzgerald, 2006).

Focusing on bush products from the Arid Zone, this research was part of a larger Desert Knowledge Cooperative Research Centre (DK-CRC) core project aimed at investigating key industry opportunities in remote areas. Maintaining an overall focus on increasing income opportunities for desert peoples, improving **Aboriginal people's** livelihoods, and developing sustainable enterprises, research was conducted along the bushfood economic value chain (see **Figure 4**). This PhD project focused primarily on the supply/production end of the chain. The important role played by Aboriginal commercial wild harvesters was studied in collaboration with another DK-CRC sub-project focusing on sustainable collection of wild bushfoods (Walsh *et al.*, 2006a,b). By researching the livelihoods impacts and returns experienced to date, this PhD project makes a contribution to the broader understanding and appreciation of Aboriginal **people's** involvement in the emerging industry in various regions of the Arid Zone, aiming to ensure the maximising of benefits, minimising of costs, and to promote the development of a more socio-culturally equitable and just industry.

Figure 4: Bushfoods economic value chain.
 (Based on Ryder, 2006. The shaded portions are the main focus of this research)



Although there are many similarities between the various arid regions, this study recognises the unique nature of Aboriginal cultural groups and does not claim to reach a generalised concept of successful industry engagement. Rather, four individual case studies that preserve their **detailed context serve as examples of people's increasing knowledge and experiences to date,**

helping to inform broader industry and policy development, and encouraging others who may be interested in participating in a range of emerging bush produce industries. As Altman and Whitehead (2003) wrote:

It would be a mistake to make gross generalisations and assume sameness in Indigenous cultures. Even within apparently homogenous environments, with superficially similar colonial histories, there is considerable contemporary cultural diversity (p. 3).

Ultimately, developing culture-friendly economic enterprises depends on locally developed and locally applied indicators (Smyth, 2003).

1.1.3 Industry research priorities

Research and development of the Australian bush produce industries has largely focused on either the anticipated economic benefits or the possible ecological/ environmental benefits. At the policy level, social and/or cultural impacts have been discussed sparingly and rarely acted upon. Aboriginal involvement has been recognised, but is perhaps yet to be truly supported or encouraged.¹⁶ Emphasis has tended to be on product development and quality enhancement, with little evidence of **consideration of Aboriginal people's aspirations or priorities (refer to RIRDC papers/plans: Graham & Hart, 1997; Nagy, 1999; Konczak, Zabaras, Dunstan *et al.*, 2009; Smyth, 2010; Ryder & Latham, 2005; Rich, 2006; PIRSA fact sheets by Hele, 2002).**

That said, back in the early to mid 1990s, a government research project known as the **Aboriginal Rural Resources Initiative (ARRI) did describe Aboriginal people's specific** achievements, disappointments, problems and aspirations from their involvement in various rural resource-based enterprises in rural and remote areas (Desmond & Rowland, 2000). During the program, valuable information was compiled on what Aboriginal people wanted to achieve and how they wanted to achieve it, as well as what worked and what did not work as project implementation progressed. By using a participatory approach and evaluation methodology (Desmond, 2000), researchers were able to achieve a more holistic and inclusive understanding of key factors of success and/or difficulty impacting on **Aboriginal people's livelihoods. This research presented a fresh approach to contextualising people's involvement in** land management projects, including bushtucker gardens, allowing the measures of success to arise from the research process itself. It contains rich findings and learnings that provide

¹⁶ The Vision Statement for the R&D Plan for the Native Foods Industry 2001-2006 read: "A profitable, agriculturally and environmentally sustainable plant-based Australian native food industry that is founded on an international reputation for the reliable supply of consistently safe and high quality food backed by effective and imaginative promotional and educational material, and that *recognises* Aboriginal culture, food practices and involvement." (RIRDC, 2001, p. 2; my emphasis)

invaluable information for both contemporary Aboriginal rural communities and individuals, and also government and non-government organisations involved in rural industry development projects. Despite this example of a more inclusive approach to research, most projects have since continued in a more conservative manner. This may be due to the additional time and resources needed to conduct a more participatory approach (Desmond, 2000; p. i).

Still, recent research into agroforestry and NRM in Tropical North Australia is helping link biological resource restoration with improved human welfare (Leakey, 2002; Bristow, Annandale & Bragg, 2003; Burgess, Johnston, Bowman & Whitehead, 2005). Such projects have begun working more closely with Aboriginal people to find out what sort of opportunities interest them with regard to commercial plant harvests and better understand the benefits received from **living and working 'on Country'**¹⁷ (Whitehead *et al.*, 2006; Burgess, Johnston, Berry, *et al.*, 2009). These studies have again emphasized the primary role of Aboriginal people in the research process.

In 2004 in Central Australia, the Rural Industries Research and Development Corporation (RIRDC) conducted research around developing a trial Australian native foods garden in a remote Aboriginal community (Miers, 2004). This study identified the importance of **maintaining strong community support and proposed the development of an "Australian Native Foods Information Kit" to provide** practical information to Aboriginal communities interested in establishing a native food horticultural enterprise. While this RIRDC project provided a rare opportunity for an Aboriginal community to play an important research role in the horticultural production of bushfoods, the information kit never eventuated (Geoff Miers, pers. comm., Oct. 2008) and to date there remain a relatively small number of Central Australian Aboriginal peoples benefiting from the emerging industry, mostly through wild harvesting.

¹⁷ Deborah Bird Rose (1996; p. 7) wrote: „Country' in Aboriginal English is not only a common noun but also a proper noun. People talk about country in the same way that they would talk about a person: they speak to country, sing to country, visit country, worry about country, feel sorry for country, and long for country. ...Country is not a generalised or undifferentiated type of place, ...rather, country is a living entity, ...is home, and peace; nourishment for body, mind, and spirit; heart's ease." The Indigenous concept of „Caring for Country' therefore incorporates care and responsibility between people and their environments; as "a cultural perception and valuing of the natural landscape in which the land sustains community and the community sustains the land" (James, 2005; p. 26). The terms „Care/Caring for Country' and „Working on Country' are now often used to expand the Western concept of land and resource „management'. They are widely used in central and northern Australia to refer to community-based natural and cultural resource management, where there is usually a mix of customary and modern practices (ref. Altman & Whitehead, 2003; Burgess *et al.*, 2005; May, 2011).

While the Miers' report acknowledged the traditional knowledge at the basis of the industry, its focus was on incorporating Aboriginal communities of Central Australia into this industry, "to embrace and become important components of the Australian native foods industry" (p. xi). Although the report mentioned increased industry opportunities to be built on Aboriginal people's involvement in the establishment and development of the industry, it did not specify how their knowledge, experience, ideas, and approaches were to inform the wider industry development. Rather, the report reads as a predominantly 'one-way learning'¹⁸ process that is an 'informed' industry teaching Aboriginal people and communities. This aligns with the federal government's vision of a mainstream agricultural basis for the industry – including agribusiness approaches to product development and improvement, and generic branding and globalisation in the market development strategy (RIRDC, 2001). In comparison, an RIRDC report in 2007 (Alexandra and Stanley) identified mixed agricultural businesses based on small-scale, diverse, labour-intensive production offered an alternative enterprise model that better supported integrated community development.

One of the most relevant reports to this PhD research project was published in 2005 by the Desert Knowledge CRC. Authored by geographer Jock Morse, the report offers an insightful look at the potential development of, and the involvement of Aboriginal people in, enterprises based on bush resources in Central Australia. Morse described how the impetus for the research (that ran between 1997 and 1999) was "the recognition within the Central Land Council (CLC) and other Aboriginal Service agencies that the developing bushfood industry, despite being overwhelmingly reliant on Aboriginal traditional knowledge of native food species, was generating *few direct benefits* for Aboriginal people and *limited opportunities* for their involvement in the industry in any meaningful way" (p. 3; my emphasis). Morse reported that at the time of publication in 2005, the situation was largely the same. The report identified potential benefits to Aboriginal people, as well as the main barriers hampering benefit flows, and was based on a decade of observation of and participation in the emerging bushfoods industry - (as Morse not only worked extensively in land management throughout central Australia, but he also actively traded in bushfoods after project completion). This PhD research builds on Morse's research, as well as findings from the ARRI case studies previously mentioned (Desmond and Rowland, 2000), in more formally documenting factors influencing involvement and the livelihood benefits and risks experienced to date.

¹⁸ „One-way learning' stands in direct contrast to the „two-way learning' approach, which advocates respect for the knowledge, learning processes, and perspectives of other peoples. With the „two-way learning' approach there is recognition that knowledge is to be *shared*, (rather than imparted), as people learn about another culture and knowledge system (Gientzotis, 2006).

1.1.4 Sustainable Livelihoods and culture

A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living. (Chambers & Conway, 1992; p. 7)

A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets (Chambers, 1997; p. 11) both now and in the future (Carney, 1998), while not undermining the natural resource base (Scoones, 1998).

The above definitions have been adopted as a basis for rural development research and practice by a number of government, non-government, and multi-lateral organisations in recent years, including the Department for International Development (UK) (DFID), the United Nations Development Programme (UNDP), OXFAM and CARE (Cahn, 2002). They are at the basis of a **relatively new approach to poverty reduction known as the 'Sustainable Livelihoods' or 'SL'** approach. This approach has been used as a tool for planning, reviewing and evaluating projects, as well as researching, analysing and developing policy (*ibid.*). It is aimed at **maintaining and building stocks of various assets (often referred to as 'capital')** to which people have access in order to achieve a set of livelihood outcomes and to provide for future generations.

The SL approach has been used to create an understanding of the options open to poor people, the strategies they adopt to attain livelihoods, the outcomes they aspire to, and any negative impacts under which they operate (Ellis, 2000). By assessing the use of **people's available** skills, resources, and possessions the SL approach aims to help improve livelihoods through building on current strengths (as opposed to a needs-based focus), viewing the sustainability factor as determined by the extent to which such skills and possessions are maintained over time. The approach is seen to provide a more holistic and realistic view of livelihood systems than the narrower, purely economic focus, reflecting the complex and dynamic nature of the interconnected elements at the basis of improvements to well-being and quality of life (DFID, 2001).

To date, most of the research and practice of the livelihoods approaches has been carried out in Asia and Africa (Cahn, 2002). In comparison, the nature of poverty and economic disempowerment are very different in the Australian Indigenous context. A colonial history based on the fallacy of *terra nullius*, involving the movement of peoples into artificial communities created by missions, the pastoral economy, and government townships, the

provision of welfare and CDEP payments, and the return of people to their homelands and outstations¹⁹ where mainstream economic opportunities are often more limited, all combine to establish a unique context within which local Indigenous livelihoods evolve.

Additionally, culture and tradition play an integral part in individual and community well-being. Sutton (2001) pointed to the interaction between old and new cultures in the Indigenous Australian context and the persistence of forms of social organisation at odds with what the **Australian government understands as 'self governance'**. He discussed the lack of recognition given to culture, highlighting the Western values, beliefs, and practices promoted by the federal government in its approach and documentation (including reconciliation documents), and emphasised some of the socio-cultural considerations necessary when judging and evaluating **'disadvantage'**. Mentioning the tensions and challenges associated with past and present Indigenous egalitarian social organisation **in today's corporatist society, in particular** the strength of family loyalty over other ideologies, and an Indigenous economy based on demand sharing²⁰ and a general rejection of accumulation (p. 148), Sutton stressed **"the complex combination of these forms of cultural persistence with the after-effects of colonisation, including ghettoisation, is what makes Indigenous conditions such a challenge to reformers"** (p. 149). So, in addition to the central role of culture, an important consideration in the **'Australianising' of a SL approach** to industry development is the political and historical context, especially the power relations over time, and the effect this has had on the lives of current generations.

Aboriginal lawyer, academic, and founder of the Cape York Institute for Policy and Leadership, Noel Pearson (2000), likewise emphasised the importance of an historical understanding, but also stressed the need to view current social problems and dysfunction in Aboriginal communities as directly related to the artificial economy formed by passive welfare dependence. **In his discussion paper entitled "Our Right to Take Responsibility"**, Pearson pointed to the general exclusion of Aboriginal peoples from the mainstream Australian economy and highlighted the critical interdependence of economic and social circumstances. He advocated

¹⁹ "The 'outstations (or homelands) movement' was first so labelled in the early 1970s. A combination of a policy shift to self determination, the implementation of land rights law and the failure of assimilation policies in Aboriginal townships resulted in an unusual rural exodus. People went back to live on their remote traditional lands and resuscitated a customary economy based on exploitation of renewable resources" (Altman, 2002; p. 36).

²⁰ 'Demand sharing' refers to an act of sharing that is often preceded by one person's insistence that another share with him or her (McCall, 2000). This type of sharing is common among hunter-gatherers (Altman & Peterson, 1988; Peterson, 1993) and makes accumulation difficult (Peterson, 1993; p. 867). Failure to share results in ill feeling "partly because one party fails to obtain food or gifts, but also because the failure to share sends a strong symbolic message to those left out of the division" (McCall, 2000; p. 139).

the development of *real economies*²¹, seeing encouragement and support for Indigenous peoples' involvement in bush produce industries as offering an alternative to **the 'service delivery' approach predominantly taken by state, territory and federal governments towards** Aboriginal policy and development. As Pearson wrote, "**the economic /s the social**" (2000, p. 31; my emphasis), so a sustainable livelihoods approach to bush produce industry development could better inform people of this inter-connection, moving away from the predominantly Eurocentric tendency to focus only on specific parts of the whole.

1.2 Thesis argument and structure

The central hypothesis of this thesis is twofold:

- that a rights-based sustainable livelihoods approach to bush produce industry development is needed to enhance the development of a socially just, environmentally and culturally sustainable, and equitable, bush produce industry for the Aboriginal people in Australia's arid lands
- that the success of such an approach depends on participatory development and adaptation of the framework to local contexts

What this means is that research needs to be done looking at the specific and local contexts for Australian bush industries, incorporating more detail of what happens between communities of production and the marketing and selling of goods. Two literature reviews need to be conducted: one analysing the Sustainable Livelihood models that have been proposed, and one critically looking at what we know about Indigenous bush produce, its production and commercialisation. From these reviews it will become clear that thorough study of some specific cases is most needed to understand why bush produce industries are working or not working, so the thesis will argue for a case study methodology that incorporates participatory research, interviews, and some action research to see how things work on-the-ground.

The thesis begins with the ***Laramba Bush Beads DVD***. This audio-visual research component is essential to help convey a sense of the realities and experiences of Aboriginal people living in the arid regions of Australia where people are telling their own stories orally, in a less structured manner, which is more in keeping with their cultural traditions, and thus, more

²¹ Pearson identifies four key components to the establishment of a 'real economy': 1. access to the enjoyment of traditional subsistence resources; 2. change to current welfare programs to include reciprocity; 3. development of community economies; 4. engagement in the real market economy (2000; p. 83).

culturally appropriate. (Note: There is no direct translation provided on the DVD; rather, an explanation of the process is available in English in the **Appendix 1** brochure.)

After the scene is set in this way, combined with the background information provided in this first chapter, the thesis begins in **Chapter 2** with a description of the research design, methodology, and methods. The research purpose and aims are highlighted, including the way in which the Sustainable Livelihoods Approach was used throughout the research process. This is followed by **Chapter 3**, a review of literature based around the development, critique, and comparison of various livelihoods approaches to development. Various concepts associated with sustainable livelihoods and well-being, including empowerment and self-determination, Intellectual Property and TEK/IK are defined and examined, primarily from international development literature, since there is limited literature from Australia. However, this section concludes with an overview of similar approaches currently being used in Australia.

Chapter 4 contains a literature review focusing on the involvement of Indigenous peoples in bush produce industries – on both an international scale, and also introducing studies, experiences, and thoughts on the development of these industries in Australia. A comparative analysis of experiences to date helps clarify the unique nature of the Australian circumstance and highlights **the need to develop and support an appropriate ‘home-grown’ approach to fair, equitable and sustainable industry growth and involvement**. Focusing on who, how, and why people are currently involved in the bush produce industries and the effects this involvement has had/is having on their livelihoods and well-being, a link is made between the micro and macro²² levels of industry development and success through a consideration of current policy arrangements and various government structures that currently facilitate or inhibit the participation of Indigenous peoples. In the review of Australian experiences, for example, studies on customary harvest are examined alongside reports on the commercial industry development. In this way, the current and potential impacts of the bush produce industries on livelihoods are better defined and the need for a holistic, sustainable livelihoods framework/approach becomes more apparent.

This review points to serious deficiencies in what we know about Australian Arid Zone bush product industries and their effects on communities. Therefore, four case studies from the Arid

²² Throughout this thesis, I use the term *micro* to refer to the individual or community level of industry involvement, the term *meso* to describe the level of service provision (whether private enterprise, NGO, or government funded), and the term *macro* to refer to the political or policy level.

Zone of central and south Australia are presented in **Chapter 5**. These case studies provide data and **insight into people's** lived experiences in a range of bush produce industries (including bushfoods, bush medicines, and bush bead jewellery). Varying research methods were employed to encourage maximum opportunities for local voices to be heard, with their stories relayed in Chapter 5, followed by a comparative analysis of all the case studies in **Chapter 6**. This analysis highlights **the major benefits and drawbacks from people's involvement in the** bush industries within these areas of the Arid Zone, building on learnings from the literature reviewed in Chapters 3 and 4, then examines how best to align macro-level goals with micro-level livelihood strategies.

Finally, **Chapter 7** provides a summary of key findings, and concludes with implications for Aboriginal people, project, policy, and industry development that would better align with sustainable livelihood and well-being outcomes.

Chapter 2: RESEARCH DESIGN AND METHODOLOGY

2.1 The purpose of the research

The purpose of research is not the production of new knowledge per se. Rather, the purposes are pedagogical, political, moral, and ethical... (Christians, 2002; p. 409)

In Australia, there is an underlying assumption that involvement in bush produce industries is always going to be good for desert Aboriginal people and their communities. This assumption is largely based on research focused on the *anticipated* or *theoretical* economic and ecological/environmental benefits of industry development (Graham & Hart, 1997; Nagy, 1999; Hele, 2002; Ryder & Latham, 2005; Rich, 2006). Despite a recent trend towards research into Aboriginal people's involvement in the industry (Desmond & Rowland, 2000; Morse, 2005; Gorman & Whitehead, 2006; Whitehead, *et al.*, 2006), discussion on social and cultural impacts actually remains minimal. Research and development lack empirical evidence from the stories and experiences of the Aboriginal people themselves.

Industry development strategies need to be locally appropriate, benefit rather than jeopardise local livelihoods, and need to ensure benefits spread to the individual and family level. People involved in the development of commercial bushfoods **enterprises within Australia's Arid Zone** need to listen to the stories of the Aboriginal people involved, to consider the range of livelihoods outcomes being experienced, to help maximise the benefits and minimise the risks of industry involvement for everyone, to ensure a socio-culturally fair, equitable, and sustainable industry.

From the broad introduction in Chapter 1 it was argued that a rights-based sustainable livelihoods approach to bush produce industry development is needed to enhance the development of a socially just, environmentally and culturally sustainable, and equitable, bush produce industry for the Aboriginal people in Australia's arid lands, and that the success of such an approach depends on participatory development and adaptation of the framework to local contexts. Further, to carry this out we need to critically examine the Sustainable Livelihood approaches and what is known about the realities of Indigenous bush produce industries.

In light of these observations, this research therefore aims to:

- provide empirical evidence about the varying modes of bush produce industry involvement and related effects in four geographically and ethno-linguistically distinct regions of arid South Australia and the Northern Territory
- report how and why specific individuals, families and communities have chosen to engage in bush produce industries
- establish what impacts involvement (or non-involvement) has had on their livelihoods and well-being to date, including social and cultural effects
- facilitate the sharing of their stories and experiences with a broader audience (including consumers, policy makers, as well as other Aboriginal people who may be interested in getting involved in such industries)
- identify the nature of socio-cultural indicators important to Aboriginal people to help establish more appropriate research and development approaches within the industry
- identify key contextual factors and features of bush produce industry involvement that may either facilitate or impede beneficial livelihood returns
- integrate case study data with existing information and frameworks on livelihoods and well-being, in particular the Sustainable Livelihoods Approach, in order to advance conceptual understanding and appreciation of the complexity of livelihoods and the range of potential effects of industry involvement
- build on prior research, to generate suggestions for how bush produce industry development in the Arid Zone should proceed in order to maximise benefits and minimise risks **to Aboriginal people's livelihoods and well-being** through their involvement (or non-involvement) in the industry, to encourage a socio-culturally appropriate industry capable of delivering desired outcomes for all

Before reviewing the relevant literatures noted (Chapters 3 and 4), I will outline the methods needed to gather these specialized forms of information from remote Indigenous communities. The arguments for taking the approach of this current research will be made here.

2.2 Research orientation, process, and design

2.2.1 Epistemological foundations

We fail to grasp the zest for life which animates them ... Some of our general ideas may thus need drastic revision. (W. E. H. Stanner writing in 1958 of a lack of understanding and misplaced sentiment shown by Europeans (i.e., 'us') **towards the voluntary migration** of many Aborigines (i.e., 'them') **to rural centres for easier access to goods and resources**; 1979, p. 49)

The reasons why individual Aboriginal people and families are involved in bush produce industries, how they are currently involved (or not), how they would like/prefer to be involved, and what effects such involvement is having on their livelihoods and well-being, all need to be understood from the perspective of the people themselves. We need to challenge Eurocentric notions of universality, especially in a cross-cultural situation. The views and experiences of many non-Aboriginal people who work alongside Aboriginal families and communities, as well as others working at the broader government and service provision levels, are also key to developing a more holistic understanding.

Such a varied approach is better aligned to incorporate the differing ideas and understandings, ontologies and epistemologies ultimately contributing to industry involvement and returns. Any study that fails to give voice to all stakeholders, can only be presenting results of a biased nature. In addition, the processes involved in industry participation (or non-participation) cannot be understood in isolation from the environment in which they occur. Historical, political, economic, socio-cultural, institutional, and natural resource factors all combine to affect the choices and strategies made by individuals and families to achieve desired livelihood outcomes.

In their analysis of writings on poverty alleviation and biodiversity conservation, Agrawal and Redford (2006) critiqued the lack of context-sensitive data collected in studies to date. They emphasized the need to identify and analyse the causal factors of enterprise success or failure by considering the many features of the context and the critical elements that shape outcomes. They emphasized how it is only through such careful and detailed analysis that any meaningful cross-site comparison may occur, including a better appreciation of the interconnection and possible tradeoffs between resource use and conservation. The lack of contextual data has meant many studies are limited in the extent to which their findings can be generalized or be the basis of broad policy interventions (p. 28).

For these reasons, I decided upon a participatory interpretive approach to the collection and analysis of qualitative data, based on a small number of case studies in which detailed and rich contextual analyses could be made. This allowed for actions and statements made at the individual, family, and/or community level to remain within their socio-cultural context, thereby minimising the risk of distorted analysis and misunderstanding (Neuman, 1997; p. 331), ultimately enhancing the extent to which cross-site learnings and comparisons could occur.

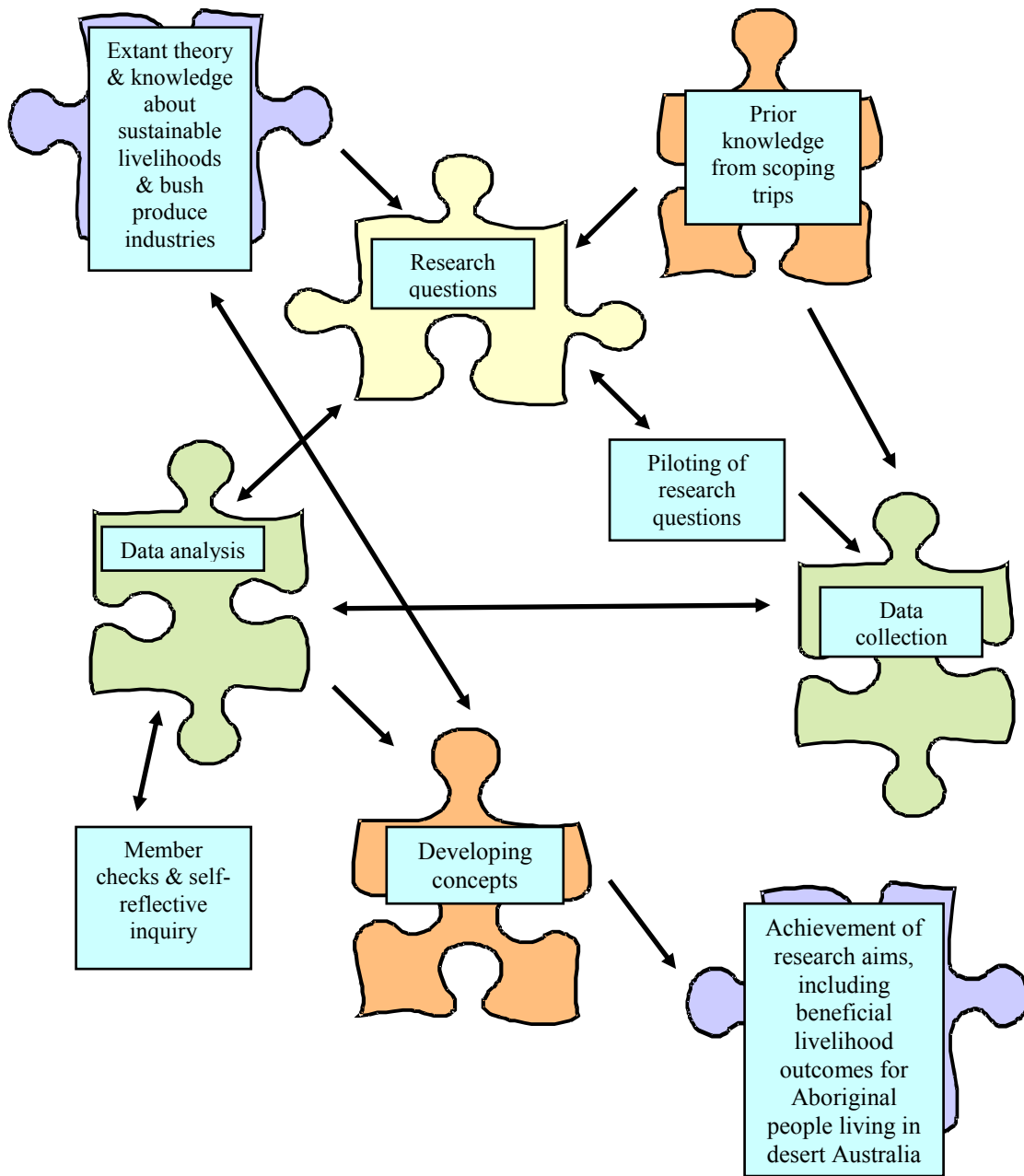
2.2.2 Attributing meanings to bush produce industry participation in desert Australia: Interpretive social research requiring a flexible, interactive design

Cultural analysis is (or should be) guessing at meanings, assessing the guesses, and drawing explanatory conclusions from the better guesses, not discovering the Continent of Meaning and mapping out its bodiless landscape (Geertz, 1973; p.20)

I employed the interpretive approach as a practical and communicative way to focus on local understandings instead of generalizable truths and laws (Roth, 1989; Geertz, 1973 – see quote above). From the assumption that social reality is constructed and contextual, I aimed to concentrate on local understandings by developing ‘**thick descriptions**’ (Geertz, 1973) – i.e., detailed microscopic descriptions based on a complex web of interpretations. However, to ensure interpretation did not reduce to arbitrariness (Jones, 1998) and personal preference, the interpretation and support for it was embedded in an interactive research design (see **Figure 5**), myriad ethnographic details, with a participatory flexible series of research methods based on respectful communication that allowed for informant/stakeholder participation in the interpretation and presentation of information (ref. *Methods* section below).

Like the piecing together of a giant jigsaw puzzle, an interpretive approach necessitates a research design that enables each piece of the puzzle to be interconnected with all the other pieces to establish a clear overall picture. Just as there is not only one way to go about completing a puzzle, interpretive research relies upon a flexible, interactive approach to data collection and analysis. As Maxwell (1998) wrote, “**interaction occurs between all elements of the research process enabling each of the components to influence all the others**” (p. 71).

Figure 5: Interactive research design (idea based on Taylor, 2004; p. 81)



Such an interactive, collaborative social science research model makes the researcher primarily responsible, not to a removed discipline or institution, but rather to the people involved in the study. This model stresses personal accountability, caring, the value of individual expressiveness, the capacity for empathy, and the sharing of emotionality (Collins, 1991; p. 216) and requires an accordingly interactive participatory methodology.

2.2.3 Ethics approval

Initial research ethics approval was gained from the University of South Australia Human Research Ethics Committee in May, 2007. A copy of the project information sheet and consent form are included as **Appendix 2**. A modification to the original application was approved in September, 2007, allowing for the sharing of research data with another Desert Knowledge CRC project running concurrently in the Ceduna field site region. As this other project was focused on Aboriginal business enterprise development, I felt it important to share any relevant information with the researcher of that project. The research ethics adopted aligned with an interpretive approach and methodology emphasizing reciprocity, honesty, accountability, responsibility, equality, and respect. In the style of feminist ethnography (Skeggs, 2001), the aim was “to establish the intention of non-exploitation” (p. 433).

2.3 Methodology

2.3.1 A descriptive case study approach

The case study approach involves a linear but iterative process, denotes research on a system bounded by space and time, and involves a diversity of methods and data sources (Yin, 2009). Beginning with a literature review, case studies benefit from prior development of theoretical propositions and the posing of research questions or objectives to guide data collection and analysis. The approach favours explanatory questions with data needing to converge in a triangulating fashion.

As Willis (2007; p. 239) wrote, case studies are:

- Particularistic – they focus on a particular context such as one person, a family, a group
- Naturalistic – they are about real people and situations, and data collection mostly occurs in real environments
- Based on thick, descriptive data – they use multiple methods to source information
- Inductive – case studies rely on generalizations and concepts emerging from the data analysis; “tentative working hypotheses (may exist) at the outset of a case study, but these expectations are subject to reformulation as the study proceeds” (Merriam, 1988, p. 13)
- Heuristic – “Case studies illuminate the reader’s understanding of the phenomenon under study. They can bring about the discovery of new meaning, extend the reader’s experience, or confirm what is known” (Merriam, 1988; p.13)

I chose a multiple case study approach as I wanted to understand how and why Aboriginal people living in different arid zone locations were engaging in bush produce industries within their contemporary real-life context. To retain the holistic and meaningful nature of the information, to more accurately understand the impact the bush produce industry has on **people's livelihoods, it is firstly essential to understand what bush produce and bush produce enterprise/commercialisation mean to people.** The case study approach offers a way of considering the broader socio-cultural context **of people's involvement** in the industry, as well as the process by which people are choosing to engage.

I wanted to collect information and stories from a wide range of sources, and to allow data analysis to be on-going throughout the collection phase. To date, most research on the bush foods industry has focused either on gathering biological/genetic data on the various species and their potential for domestication (RIRDC 2001, 2008), or on the upper levels of the economic supply chain where national organisations like Indigenous Australian Foods (IAF) and retailers like COLES Pty. Ltd. have participated in survey-style reviews of industry development (see Robins, 2007). This research has largely failed to include the voices of Aboriginal people involved in the industry – particularly in the arid zone and particularly at the harvester/producer level. Most discussions focused on benefits for Aboriginal people have been based on observations and assumptions made further up the value chain. However, to truly appreciate the variety of benefits and/or drawbacks being experienced by Aboriginal people participating in **the bush foods industry in the arid zone, it's necessary to understand** the context in which participation is occurring. The case study approach allows for the collection of a large amount of in-depth information – from a variety of stakeholders; embedded in its socio-cultural context; and guided by theoretical propositions (Yin, 2009).

The methodological approach taken by the ARRI study (Desmond & Rowland, 2000) set a precedent for the PhD research. **In an effort to ensure that Indigenous Australians' views of** their projects were accurately captured and reflected, the ARRI study (Desmond & Rowland, 2000) developed an evaluation methodology aimed at moving beyond the purely economic, applied in a series of case studies (Desmond, 2000). To help identify key factors of success or difficulty in building sustainable enterprises, they compiled information on:

- how Indigenous people wanted to develop their rural resources
- their aspirations for rural development
- approaches they wanted to adopt
- what problems and opportunities they encountered

The ARRI study is one of few in Australia that has allowed Indigenous people an active role in research design and implementation, and has accordingly reported invaluable first-hand **accounts of people's experiences and opinions. In light of such observations, the present** research aimed to take a similar multi-level, people-centred approach to assess the effects of bush produce trade on the livelihoods of Aboriginal people in desert Australia.

The following initial questions formed the rationale for a case study approach and evolved during the literature review process, as well as during initial scoping trips into the field:

- Who, how, and why are people participating in the commercial bush produce industry in these arid regions?
- Who and why are some people not participating?
- What are the perceived livelihood benefits and costs experienced from bush produce industry involvement across the case study areas and what are some of the factors contributing to these effects?
- How do people feel about the type and extent of current participation and what are their thoughts on/hopes for future involvement?
- Do people think it important for Aboriginal people to have an on-going role in the development of the bush produce industry? And, if so, how and/or why?
- How can we best conceptualise the effects of bush produce industry involvement on **Aboriginal people's livelihoods and well-being** in the arid zone and illustrate the complexity of factors contributing to livelihood choices, strategies, and outcomes so that the positive effects of industry involvement may be understood, enhanced, and sustained, while any negative effects may be minimised?

Additional thoughts and ideas to explore, to better inform industry development included:

- The socio-cultural importance of bush produce and products and their use
- The nature and importance of partnerships and social networks to bush produce access, use, and commercialisation
- The extent of state oversight and support needed to ensure the development of a socio-culturally fair, sustainable, and equitable industry
- Whether plant domestication, as well as the scaling-up and introduction of new technologies is shifting benefits away from women and the most marginalised producers
- How keen Aboriginal people are to develop opportunities for more involvement in the bush produce industry

These initial questions then formed the basis of a more formal set of open-ended questions which were used during semi-structured interviews with stakeholders participating at varying levels of the bush produce industry value chain (ref. **Appendix 3** for a sample of my semi-structured interview questions for 'community members, commercial raw produce harvesters and growers'). These questions were firstly piloted with Ron and Kirk Newchurch, a Narungga family based at Port Victoria, on the Yorke Peninsula in South Australia. Ron and Kirk have been involved in horticultural production of bushfoods for a number of years. Their *Bookyana Bush Foods* enterprise grows saltbush, warrigal greens, and quandongs, supplying for the *Outback Pride* brand. Their feedback was invaluable in helping validate my approach and ensuring I was aware of the need for practical outcomes from the research (ref. Reflective Diary entry, **Appendix 4**, Pilot Interview entry, 13.07.2007).

These questions were answered in the field using formal and informal interviewing techniques coupled with direct and participatory observation (ref. following *Methods* section).

2.3.2 Defining and selecting the cases; multi-case design and cross-case analysis

Each case is defined as the main community/communities²³ in each region within which bush produce industry involvement is occurring, the mode or type of involvement, and the meso and macro level organisational structures directly or indirectly engaging with or impacting on individual and/or community-level involvement. The natural boundaries defining each of the cases include the ethno-linguistic boundaries incorporating extended family networks.

The selection of cases was based on purposive or judgmental sampling (Neuman, 2003; p. 213); that is, cases were selected from known families or communities that were participating in commercial bush produce activities. Private investors, wholesalers, and researchers involved in the development of the industry were initially contacted to find out which Aboriginal communities in the Arid Zone were actively involved. Scoping trips made to three field sites in August and October/November 2006 confirmed a variety of industry engagement in each potential case study area.

²³ Rennie and Singh (1996) wrote, "the term 'community' is a grossly overused and abused word. Properly it refers to groups with meaningful regular social interactions, such as people under a traditional chief. A community is tied together by common occupancy, a dense network of social and often kinship relations, is to some extent autonomous, regulating its own affairs within bounds" (p. 22). The definition and understanding of community in Aboriginal Australia remains contentious (Peters-Little, 2000). In this research project, a community is geographically based, referring to "the human assets and social networks that relate to the inhabitants" (Stafford-Smith, Moran & Seemann, 2008; p. 124); however, just as Rennie and Singh guard against the idea that communities are homogenous, the emphasis here is on individual stories and experiences from within each of these regions (Guerin & Guerin, 2007).

Building relationships with key Aboriginal people in each region was essential to begin developing the necessary social networks and trust to be able to undertake social research in a cross-cultural situation. I spent much time during the first year contacting people, both Aboriginal and non-Aboriginal, to introduce myself and talk about what I hope to achieve from this research. From the few initial contacts I had, many more came. I was introduced to Aboriginal people in each region predominantly through: TAFE and university lecturers involved in horticultural training; bush produce wholesalers and private industry players; my research supervisor and community development professionals; and staff of land management organisations.

The final case study sites evolved from a comparative matrix I developed throughout the research, which initially contained details of 15 sites throughout arid-zone South Australia, Northern Territory and Western Australia in which Aboriginal people were either involved in commercial bush produce activities, were not yet involved but were interested in such activities, and/or used to be involved but had since stopped production activities.

This comparative matrix was developed based on international development frameworks designed to help in cross-situational comparison of data. Elements of the livelihoods outcomes matrix developed for the CIFOR World Comparison of NTFPs Project were appropriated (Sullivan & O'Regan, 2003), comprising a table of contextual descriptors that aided initial field site selection and was used in data collection, integration, and ultimate comparison between case study sites. By using consistent terms and definitions for an appropriate range of variables, information was able to be collated in a more standardised fashion across the sites, allowing for a comparative analysis.

In the end, the matrix allowed for a shorthand method of noting particular influences on **Aboriginal peoples' involvement in bush enterprises. Some influences were documented in the** literature, but most evolved out of the research process, during discussions with key informants at various stages of the value-chain and extended stays in the field. The descriptors were changed and developed throughout the research process, in accordance with local understandings of key contextual variables. In the end, a total of 120 variables were distinguished, each of which in some way influences bush produce industry involvement and beneficial livelihood returns. I grouped these into 10 categories of information, based on Belcher and Ruiz-Perez (2001):

- Geographic setting
- People
- Characteristics of the plant product(s)
- Characteristics of harvest/production
- Ecological implications
- Socio-economic characteristics of production area
- Institutional characteristics of producers/commercial harvesters
- Policies affecting local bush produce industry
- Characteristics of trade and marketing
- External support services.

Information on these contextual factors at each site was gleaned from a number of sources. A sample of sources and methods of data collection for the matrix is detailed in **Table 1**.

Table 1: A sample of sources and methods of data collection for the matrix (based on ideas from Schreckenberg, Marshall, Newton, Rushton & Willem te Velde, 2005; Belcher & Ruiz-Perez, 2001; Marshall, Rushton & Schreckenberg, 2006).

Contextual descriptors	Included information on:	Information sources and methods for collection:
Geographic Setting	Location; climatic zone; soil type; predominant land use; access and remoteness (incl. distance, means of transport, time, cost); infrastructure	Published maps; participatory maps; key informants; secondary literature – e.g., environmental health reports
People	Ethno-linguistic groups; population size, type and growth trend; industry stakeholder groups; social history of the area; social structure and well-being	Key informants; historical timeline; oral history; historical texts; census; education dept./ school/ teachers and health service/workers' figures; focus group discussions on well-being and livelihoods assets
Characteristics of the Plant Product(s)	Names of plants (local, common, scientific); plants people prefer to harvest, grow, sell & why?; the type/ source/ use of each; perishability	Key informants, incl. experts in the field – e.g., ethnobiologists; scientific reports (e.g., CSIRO); matrices; focus group with harvesters/cultivators

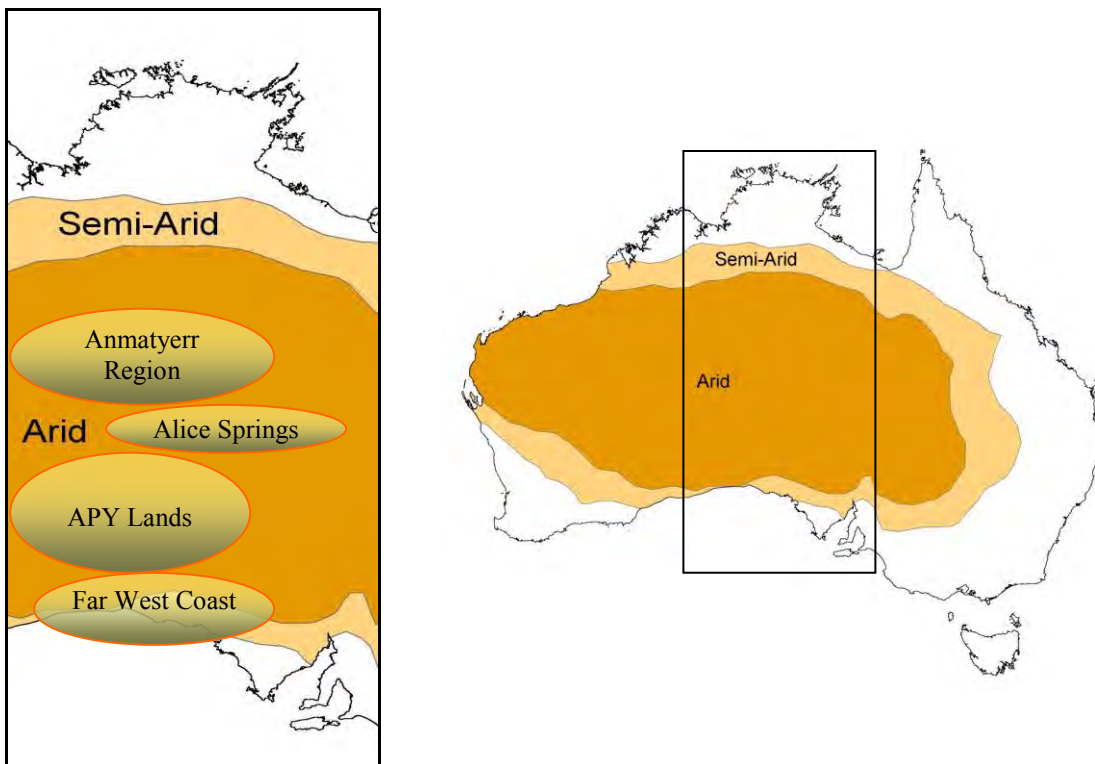
While Belcher and Ruiz-Perez (2001) employed statistical analysis with their matrix to calculate the relative strengths with which each variable predisposed “successful” NTFP commercialisation, their comparisons depended on detailed information about individual communities that had previously been collected over a number of years by anthropologists, NGO community workers, botanists, and other scholars. Their broad comparison was therefore

literature dependent and aimed at informing future researchers and development investors. In contrast, I focused on a smaller number of field-sites in order, not only to maximise the quality of the information I recorded, but also to ensure the research process and outcomes would benefit the people and communities involved. As a result, the matrix I developed was primarily used as a tool for data organization.

From this matrix I then focused on four geographically and ethno-linguistically diverse regions as my case studies (ref. **Figure 6**):

- ❖ the region of Ceduna, located on the Far West Coast of South Australia
- ❖ the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands of the north-west of South Australia
- ❖ Anmatyerr country, 120kms north/north-west of Alice Springs in the Northern Territory
- ❖ the town of Alice Springs, NT

Figure 6: Map of case study regions located throughout Central and South Australia.



Selection of these four regions was based on several factors identified during initial field trips and recorded in the contextual matrix:

- each region is located within the arid or semi-arid zone
- there are a number of Aboriginal families and communities living in each region who are currently engaged in commercial bush produce activities
- the mode of involvement differs in and between sites
- all regions have an active subsistence-based wild-harvest which may be affected by commercial industry involvement
- livelihood capital assets vary between the groups
- each region has a range of unique contextual variables that may be affecting bush produce industry participation and livelihoods outcomes
- people in each of these regions showed a keen interest in the research project

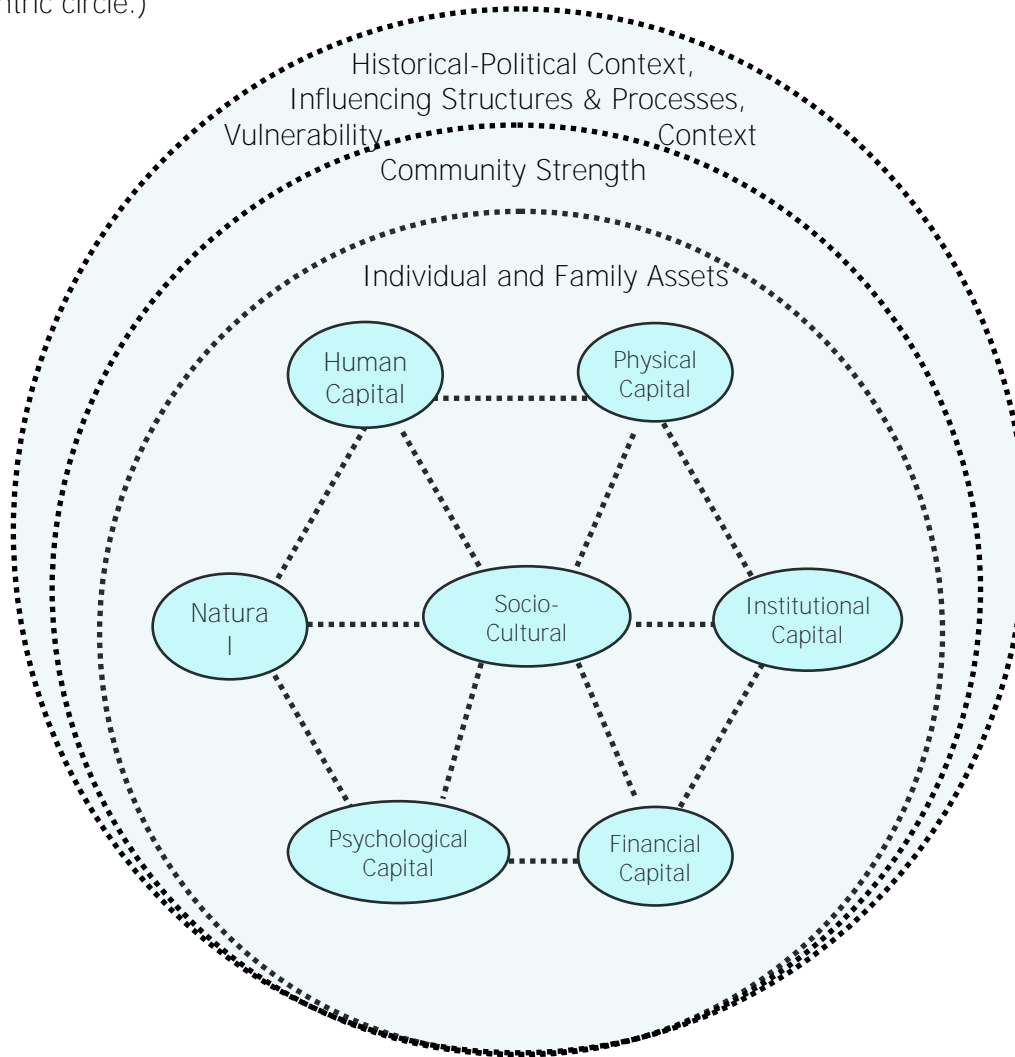
Each case study region was studied as a discrete entity, using the same basic research questions but as suggested above, the methods used in each case were often different. Focus on the four regions allowed for cross-site comparison, to ultimately strengthen the internal and external validity of the research findings and to **“enhance the capacity of the study to build concepts about the phenomena being investigated”** (Yin, 1998; pp. 239-40). The field sites were chosen as sufficiently representative of the varying types of engagement with bush produce industries: from a long-established commercial wild-harvest enterprise (Anmatyerr case study), to more recently established small businesses focused on value-adding for a local market (Alice Springs case study); from communities involved in a state-wide horticultural network (APY case study), to those supported by more locally-based business networks (Far West Coast case study).

2.3.3 How the Sustainable Livelihoods Approach was used in the research design

A sustainable livelihoods framework informed the overall research design. The Sustainable Livelihoods Approach (SLA) to development was firstly critically examined during the literature review process (Chapter 3) and from this, a draft livelihoods assets and impacts framework was proposed to help understand the effects on **desert Aboriginal people’s livelihoods from involvement in bush produce industries** (see **Figure 7**). This draft framework guided initial research design by helping distinguish the scope and complexity of potential livelihood effects and highlighting the need for a multi-stakeholder approach, but was in turn shaped and

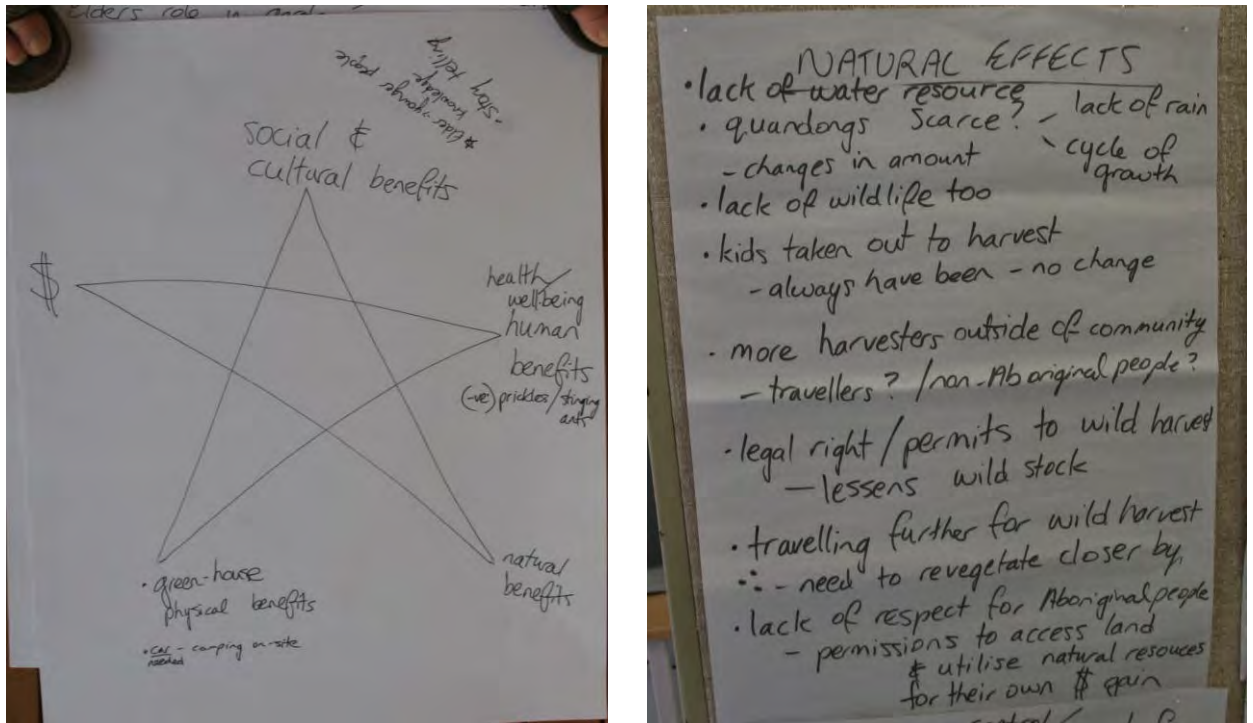
modified throughout the research process according to information gathered from the various case studies. In addition, the research questions in the interview guide (**Appendix 3**) were based on the SLA and allowed for some comparison between the individual PhD case study sites.

Figure 7: Draft livelihood assets and impacts framework that evolved out of the PhD literature review. (The lines are permeable as information and communication flows between each concentric circle.)



As the SLA and its principles are based on the importance of learning through implementation, the research methods and activities were varied according to the needs and priorities of people in each case study, to ensure maximum livelihood and well-being benefits for people both during and as a result of the research process (see **Figure 8** and following *Methods* section).

Figure 8: The SLF was used during some workshops to facilitate discussion of the broad range of effects experienced from bush produce industry involvement. It was used in brainstorming exercises in gender groups around SLA assets and effects.



In these ways, the SLF served as a useful tool to demonstrate complexity and help categorise information at the collection stage. It often helped create more scope for discussion, particularly in groups, with visual representations of the various assets providing stimuli for people to 'speak to' and think more critically about (ref. **Figure 8**). Feedback received on the SLA used during a collaborative workshop that took place at the Ceduna case study site (described in Chapter 5.1) was very positive, with participants appreciative of the time they had during the workshop to think about and talk through the varied factors impacting on their enterprise development strategies.

The SLA was also used to analyse and present research findings. In Chapter 5 of this thesis, each case is presented in a template-like fashion, following on from the SLA literature review (Chapter 3) and the benefits and risks of bush produce industry involvement identified in the literature (Chapter 4). The aim, in doing so, is to highlight current effects and impacts of bush produce use and industry involvement on each of the livelihood assets, as well as to identify some of the key contextual factors influencing such involvement. The template evolved out of the initial research workshop held at the first case study site (in Ceduna in October, 2007), and was subsequently used to help with data organisation and analysis at the other three field sites.

Despite the varying methods used to obtain data at each field site, this standardised approach to data management helped with information analysis and cross-site comparison (Chapter 6). Still, while a SLA and template were used to ease the research process, I appreciate that the specific and local nature of contexts cannot be overridden. While the information is presented in this thesis in categories (assets) and binaries (benefits/risks), this is essentially my (subjective) interpretation and is not meant to represent **absolute 'truth'**. However, to help ensure methodological rigour and validity I employed flexible and multiple research methods (see *Methods* section below).

2.3.4 Cross-cultural research and decolonising methodologies

The research was conducted in a self-reflective manner as suggested by Indigenous academic Linda Tuhiwai Smith (1999), by firstly negotiating collaborative-style research agreements with individuals interested in being involved in the study. These agreements were verbal²⁴ and were in addition to the individual written consent forms (see **Appendix 2**). They were based on the *Desert Knowledge Cooperative Research Centre Indigenous Intellectual Property Protocol* (2003) and were aimed at a cross-cultural understanding about what the research should entail, the most appropriate methods to use, and the expected outputs and outcomes. The mode of engagement was aligned at all times with local protocols, as per DK-CRC Aboriginal Engagement Protocols (DK-CRC, 2007), and was designed to enhance ontological inter-connection. This approach was in accordance with what Martin (2003) termed “Indigenist Research Design” – i.e., research that is designed with both reflexivity and flexibility, to “decolonize existing Western research traditions...(to develop) a research future that shifts boundaries, recognises multiple realities and truths, and enhances opportunities for reflection of self and of research traditions” (p. 214).

Decolonised research has to be defined and designed with ideas about likely benefits for indigenous peoples and their communities (Smith, L.T. 1999; p. 191). It must have relevance to those being researched and provide empowering outcomes (James, 2005; p. 349). For these reasons, the collaborative approach taken in this PhD aimed to ensure the research process and outcomes:

²⁴ A written collaborative research agreement was drafted prior to undertaking research with the Ceduna case study participants. However, although the document was worked on and made available for comment over a period of several months (prior to commencing research in Aug. 2007), the written format was not engaged with and in the end the agreement remained verbal. I found that people generally felt much more comfortable talking through the specific uses of the research and their knowledge during and throughout the four-year research process. Discussions were always documented, with specific use agreements noted and dated. In this way a much more organic and flexible approach to research and IP protection was able to evolve.

- were responsive to local interests, needs, and priorities
- were based on local knowledge and expertise
- **aligned with people's expectations and ethical requirements**
- allowed for maximum engagement and participation
- stimulated cultural knowledge sharing and inter-generational learning
- created opportunities and expanded life experiences
- allowed people access to information to help them make better informed decisions
- were respectful, interesting, and enjoyable for all involved

2.4 Methods

The interpretations presented in this thesis are supported through the use of multiple methods. A range of different methods were flexibly employed across the case studies. **Table 2** provides an overview of the methods used, how many people were involved, and how much time was spent in the field. In addition, each method is described below – including details as to why the method was chosen, how it assisted in the research process, as well as how each method added to the overall quality of information.

2.4.1 Data collection and generation

FIELDWORK

In order to better understand the effects of bush produce industry involvement in the Arid Zone, I needed to spend time in the region to speak with people about the perceived effects and to observe involvement in order to more fully appreciate the contextual variables unique to each case study. From a basis of several years of prior experience living and working with Aboriginal people in remote regions of North-West Australia, I understood the importance of developing relationships with (potential) research participants prior to starting, as well as during, the formal research process. Following local protocols, I spent ten months (from July 2006 – May 2007) travelling to and from potential case study areas, having face-to-face meetings with the appropriate community members and leaders to discuss and negotiate the terms of research and taking the time to meet with people who might be interested in taking part. During this period, the following activities were undertaken in an effort to allow people to get to know me and I them, prior to the formal research process:

- I volunteered at the Laramba Aged Care Centre (Anmatyerr case study), helping make meals and school lunches, and helping organise a leisure day for full-time carers in the community. These activities allowed me to meet the women, both in the senior school and the community Elders, including Amy Peltharr Stafford, who were later engaged in the bush jewellery research
- I met and spoke with members of the West Coast Aboriginal Enterprise Network (WestCAN) (Ceduna Region case study) for more than a year before the group and I jointly figured out a way my research might be beneficial to them. The co-ordinator and I agreed on a two-day workshop approach, where participants would be paid as co-researchers
- I travelled to the APY Lands (APY Lands Case study) and attended TAFE classes in Amata and Mimili to meet students studying horticulture, and spoke with their respective community heads about how the research might best benefit them. I volunteered at the **Amata Women's Centre, where I met Brenda Stubbs and found out about the** Bush Rub enterprise
- I got to know Rayleen Brown and Marilyn Cavanagh (Alice Springs case study) over successive meetings and conversations, every time I was in Alice Springs. I would visit Rayleen in her *KungasCanCook* kitchen, asking how the business was going and gauging where the research might best be applied. Marilyn was always at the Sunday markets with her family, so I spent some time sharing the latest industry news with her, including useful marketing tips I had read about and contacts I had made.

With this iterative approach, I was able to effectively overcome distrust the participants may have had about research *per se* (Barrett-Ohia, 2006). For example, Marilyn Cavanagh later explained that she and her family really needed to get to know me before they felt comfortable enough to be interviewed about their family enterprise. With the guidance of local reference people (including Amy Peltharr Stafford, the WestCAN co-ordinator, and Brenda Stubbs) I was able to build enduring relationships with the research participants, ensuring mutual respect, and encouraging research integrity (*ibid.*).

Case study	Who talked to?	Methods used	No. of field trips	Total time spent on-site
Far West Coast	<ul style="list-style-type: none"> • 14 local community members • 2 TAFE lecturers • 4 researchers • 5 macro-level players • 3 environmental officers 	<ul style="list-style-type: none"> • Action Research • Individual and small group interviews • Participatory and direct observation • Documentation • Self-reflective inquiry 	4	5 weeks
APY Lands	<ul style="list-style-type: none"> • 12 local community members • 3 TAFE lecturers • 2 meso-level players (wholesalers) • 4 macro-level players • 1 distributor • 1 environmental officer • 3 researchers • 2 health workers 	<ul style="list-style-type: none"> • Individual and small group interviews • Participatory observation • Documentation • Self-reflective inquiry 	6	4 weeks
Anmatyerr	<ul style="list-style-type: none"> • 34 local community members • 1 TAFE lecturer • 9 meso-level players/wholesalers • 2 macro-level players • 2 researchers 	<ul style="list-style-type: none"> • Action Research • Individual and small group interviews • Participatory observation • Physical artefacts • Documentation • Self-reflective inquiry 	6	5 months (concurrent with time spent in Alice Springs)
Alice Springs	<ul style="list-style-type: none"> • 4 community members (entrepreneurs) 	<ul style="list-style-type: none"> • Individual and small group interviews • Direct observation • Self-reflective inquiry 	4	5 months
TOTALS	110 people consulted, interviewed and/or worked with		20 trips to the field (driving over 30,000km!)	Over 7 months spent in the field

Table 2: Summary of information relating to data collection at field-sites.

INTERVIEWS (BOTH FORMAL AND INFORMAL)

Information was generated during individual and small group semi-structured interviews. An interview guide that addressed the research aims was used (see **Appendix 3**). Different versions were adapted to ensure relevance for participants involved at varying levels of the industry value chain. These open-ended questions combined with active listening techniques to create a dialectic, to facilitate information flow between myself as researcher and the participants. A total of 25 formal interviews were conducted, of which: 21 were individual and 4 were group; 23 were face-to-face and 2 were on the phone; 6 were audio-taped and 19 were recorded in writing; 17 Aboriginal people participated and 15 non-Aboriginal people. People were not paid for the interviews; rather, benefit-sharing was negotiated on an individual and/or group basis (see following section on *Issues of data quality and benefit-sharing arrangements*). These formal interviews were conducted in English and the written transcripts were provided to the interviewees for checking. These interviewees included:

- Aboriginal people currently involved in the commercial bush produce industries, or people with ideas and opinions about industry development, who are either harvesting and/or growing raw produce, involved in training and/or research, value-adding produce, or acting in an industry liaison role within the case study regions
- non-Aboriginal people directly involved with training, wholesale, private investment support, research, and/or community organisation/support (e.g., CDEP management) within the case study areas
- Aboriginal and non-Aboriginal people who could provide contextual information in regards to each case study site (e.g., historical information in regards to the traditional use of bushfoods and prior interest in horticulture)
- representatives of government and NGO organisations with interest in bush produce industry development in one or all of the case study areas
- Aboriginal and non-Aboriginal people involved in bush produce industries at the processing/catering, distribution, and marketing levels, and having direct connection to one or all of the case study areas through the supply chain

I found formal interviews worked best with people who were used to telling their stories²⁵ for different audiences. For example, the entrepreneurs based in Alice Springs, as well as those involved in the Amata-based bush medicine enterprise, spoke succinctly about their experiences in bush produce enterprises, giving insightful accounts of their personal journeys, and often reflecting on ways to improve their situations. Working with these

²⁵ Storytelling is a term used throughout the thesis to encapsulate the social, interactive process of constructing meaning. The qualitative interview process does not uncover pre-existing truths (Collins, 1998); rather, it is “an effort to represent in detail the perspectives of participants in the process or setting being studied” (Willis, 2007; p. 295). The resultant stories promote the hermeneutic concept of *verstehen*, whereby understandings of the perspectives of humans are situated within a context of details about the setting or situation (*ibid.*).

people on a more individual basis allowed me to share my knowledge to help meet their particular needs and this reciprocal research relationship allowed for a sound rapport to build, based on mutual trust, respect, and a shared passion for the development of socio-culturally appropriate and fair bush produce industries.

In addition to the formal interviews, informal discussions around the research questions took place on a daily basis in the field. These discussions were often in a mixture of Aboriginal English and the local Aboriginal languages but were simultaneously translated into English by family members who acted as interpreters. As information was gathered using multiple research methods and over extensive time spent in the field, I decided against employing a qualified interpreter. Rather, I wanted the research process to be as unobtrusive as possible.

Within this context, interviews and discussions were more a discursive accomplishment (Kohler Riessman, 2006). After preliminary data analysis was conducted, relevant parts of the interviews and discussions were provided to research participants for checking. These member checks were to verify the accuracy of the information gathered and to gain feedback on any (mis)interpretations.

PARTICIPANT OBSERVATION AND OBSERVATION-BASED TECHNIQUES

Participant Observation is a special mode of observation in which the researcher is not merely a passive observer, but rather, actually participating in the events being studied. *The hallmark of participant observation is interaction among the researcher and the participants... interspersed with observations so that the researcher can question the subjects and verify perceptions and patterns* (Savenye and Robinson, 1997; p. 1177). In this way, Participant Observation allows for deeper immersion into the culture studied, developing a deeper rapport, aiding mutual understanding. However, observed populations may also alter their behaviour around the researcher because they know they are being studied. Ways to help account for such bias include researcher reflexivity (ref. *Self-reflective inquiry* section below) and member checks to seek verification from the participants.

In the case studies where local Aboriginal languages are the *lingua franca* (i.e., the Anmatyerr language in the Anmatyerr case study and the Pitjantjatjara language in the APY Lands case study) I focused on more participatory and observation-based data collection techniques. For example, in the Anmatyerr case study I helped organise and participated in trips to collect nuts and seeds for jewellery-making and during the APY Lands case study I ran jewellery-making workshops. Observations were recorded through stills photography, but most information was recorded in writing at the end of each day, away from face-to-face contact with research participants. This process of non-immediate fieldnote recording

was particularly important in the Anmatyerr case study as it was noticed that physical behavior changed when notebooks were produced in front of research participants. People became visibly tense and uncomfortable, as there was a more rigid distinction made between researcher and subject. Research outcomes and benefits for the community were negotiated with research participants and through the community school, and were based on inter-generational language and culture exchange and recording. As a result, the women involved in the research were sharing their knowledge with me and the young women of their community in a culturally appropriate manner: they lead by example, and my role was to observe, listen, and remember, rather than to ask directly. In this way, my participation and observation aligned with more traditional ways of Aboriginal learning based on observation, imitation, and memory as described by McBride (2000).

(PARTICIPATORY) ACTION RESEARCH (PAR)

I wanted to use the research to effect change; to focus on solving practical problems in a real world context. To this end, I opted for an action research approach which assumes the act of doing research helps participants develop new capacities and is empowering (Willis, 2007). In the spirit of *participatory* action research (PAR), some participants were collaborators in the research process, involved in the development and evaluation of action to solve a problem. A PAR approach means researchers start with the *a priori* assumption that local knowledge is potentially valuable and data analysis and/or theory development is through direct involvement. Strictly, *some of the people in the organization or community under study participate actively with the professional researcher throughout the research process from the initial design to the final presentation of results and discussion of their action implications* (Whyte, Greenwood & Lazes, 1989; p. 514). Although the form of action research chosen in the PhD research was participatory, it is but a weak form, as the research participants were mainly involved in verification of data description and analysis. Still, the participatory process began with preliminary discussions with people during scoping trips which helped shape the initial research questions and the progress of the research was **continually shaped by the research participants' knowledge, needs and interests.**

An example of individual and group learning that occurred during the research process was a co-researcher workshop held in Ceduna (ref. Far West Coast Region case study, Chapter 5). During this workshop, my locally-based Aboriginal co-researcher and I acted as facilitators and observers. The workshop ran for two days and was attended by 10 people, all members of the West CAN enterprise network. Participants were paid at the rate of researchers according to the *Desert Knowledge CRC Aboriginal Knowledge and Intellectual Property Protocol* (2007) and the format of each day revolved around discussion of the benefits and risks experienced from involvement in various local bush produce industries. At

the beginning of the first day, I presented the SLF which had evolved out of the literature review (Figure 7) and the participants used this framework to guide group discussions throughout the workshop. At the end of the second day, I asked for feedback and thoughts on this framework/approach, resulting in its modification and use in subsequent case studies (ref. Chapter 5).

This inclusion of alternative perspectives and interests in the research process accords with the PAR **assumption that 'knowledge creation is a collaborative endeavour'** (Ozanne & Saatcioglu, 2008; p. 431) and facilitated process validity (Reason and Bradbury, 2001), whereby discussions were had and problems investigated in a way that enabled ongoing **learning and improvement. This was encapsulated in workshop participants' claims that the workshop discussions had been "worthwhile", and very helpful in aiding their professional development.** All commented on how they appreciated such a forum in which to share ideas and help each other progress. People felt comfortable with a workshop-style approach, as they were already used to gathering as members of the network to facilitate learning and knowledge exchange.

Catalytic validity (Reason and Bradbury, 2001) in PAR refers to the extent to which the research collaborators are invigorated to understand and change social reality both within and beyond the research study. It involves a breaking down of the traditional researcher – researched dichotomy (Beach, 2003), with examples of such validity in the PhD including conversations and group discussions leading to strategy development based on knowledge sharing. In the Anmatyerr case study, for example, a dialogue was created about the research use and process; investigation was often collective; I sought feedback regarding interpretation; and action ensued. The research process was transformative and empowering, involving long-term adaptation patterns due to informed choices. This is exemplified in the women working together to run a market stall, to be able to speak directly with their customers and thus secure some socio-cultural change beyond the formal research parameters.

DOCUMENTATION

I made use of published and unpublished documents and visual media to help build the context of the case studies and counteract any biases in the interviews, including

- o ethnographic, historical, community development, anthropological, sociological, and demographic material about each case study region, its livelihoods and well-being
- o newspaper, radio, and television reports about bush produce activities and industry involvement, particularly in the case study areas

- o trainer and wholesaler records of annual production, yields; harvester involvement and payment in each case region
- o **community newsletters referring to each region's bush produce activities and industry involvement**

PHYSICAL ARTEFACTS

I made use of the commercial information brochures and websites developed by the research participants involved in bush medicine enterprises. I also helped the Anmatyerr women put together an information pamphlet describing their jewellery-making process. Their pieces of jewellery were also studied for their range of techniques and formed the basis of discussions around pricing considerations. We also collaboratively developed the **"From Tree to Store" DVD** based on stills photographs documenting the jewellery-making process.

SELF-REFLECTIVE INQUIRY

Self-reflective inquiry aims at discussing the subjective impressions of the researcher. This **approach helps place the researcher's interpretation within their own cultural, social and experiential parameters, thereby helping focus the researcher's analytical lens, to better understand the researcher's influences on the research (Jasper, 2005)**. As a technique within the chosen philosophical and theoretical framework, reflective writing can be used as a method in itself, as a data source, and within the analytical processes (*ibid.*).

Through the use of a reflexive diary, I tracked the progress of my work and integrated empirical data with field notes, impressions, feelings and ideas. Although reflexive accounts of research may be perceived as irritating (Waterman, 1998), I used this method to help establish ethical and methodologic rigour (Koch, 1994, 1996; Smith, B.A. 1999), to make transparent my reasoning, judgement and emotional reactions throughout the research process (Harding, 1987). I used it as a deliberate strategy to enhance the research process – recognizing the potential of reflective writing to aid development of analytical and critical thinking, creativity, insights and understanding and the connection of disparate ideas (Rolfe, 1997; Schon, 1983, 1987). My aim was to make visible my stance as researcher, to enhance credibility, to add a further dimension to the interpretive research approach I had chosen. For as Jasper (2005) writes:

In research, reflective writing acknowledges the subjective nature of the researcher's interaction and interpretation of the data, providing the decision-trail within the public domain and transparency of the processes leading to conclusions being presented (p. 250).

A reflexive diary was kept regularly throughout the research, from refining the initial research questions through collecting data in the field, analysing it, and gathering feedback from participants regarding the conclusions and recommendations. I therefore felt it important to intersperse relevant extracts of diary text throughout the written PhD thesis. Diary writing helped organize my thoughts and focus on issues that seemed important. It became a catalyst for insights and led to reformulations in the purpose and methods of my research. In many ways, the diary makes public what researchers have long kept hidden: the private feelings, doubt, and dilemmas that confront the field-worker in the field setting. In the fashion of *The Innocent Anthropologist* (Barley, 1983) and *The Vulnerable Observer: Anthropology that breaks your heart* (Behar, 1996), I hoped my narrative texts would help humanize the ethnographic approach. More extensive extracts can be found in **Appendix 4** and effectively act as an audit trail of the research process (ref. section on *Issues of data quality* below).

APPROACHES TO DATA MANAGEMENT AND ANALYSIS

Data management techniques included the writing of field notes and the transcription of interviews, as noted above. In addition, information was categorised, placed in the contextual matrix, and displayed in diagrammatic form (in case-specific SL frameworks). All sources of evidence were subsequently reviewed and analysed together, so that the case study findings were based on the convergence of information from different sources. This **analytic strategy was based on the initial research proposition that Aboriginal peoples' involvement in bush produce industries and any livelihood benefits experienced are contextually based, and that the key to maximizing beneficial livelihood effects is a better understanding of the range of contextual factors unique to each circumstance.** The matrix and SL frameworks helped exemplify and visually present the complexity, as well as emphasise the unique nature of the individual case studies.

This deductive-style approach to data analysis was accompanied by iterative and inductive practices, whereby categories and themes were allowed to emerge from the data. Rather than analysis being a distinct final stage of the research, early data helped guide subsequent data collection and was constantly related back to the findings of the literature review and the conceptual SL framework (Figure 7). Although this framework and associated matrix made case study data collection and analysis more structured, the framework and matrix were constantly revised and (re)developed over the course of the research to reflect the varied contextual factors and features of bush produce industry involvement that emerged from the research itself. This lessened the risk of researcher bias and the division of data into arbitrary categories (ref. *Issues of data quality* below).

The thematic analysis of field notes, interview transcriptions, and documentation was accompanied by self-reflective inquiry and involved analogical reasoning, which involved more tentative acceptance of explanations. As Willis (2007) writes, *analogical reasoning is a much looser, less precise approach to inference than either inductive or deductive logic. It involves an acceptance of the idea that we are not looking for certainties but for understanding or partial similarities* (p. 215). Rather than convey a sense of certainty that an incontrovertible deductive inference was being made, I wanted to emphasize that the interpretations were personal: they are not the only possible ones, nor the only correct readings of the data. Conditional verb forms were used to attenuate the sense of absolute certainty, and assertive terms were used with caution (Gobo, 2008). In this way, I used the first person and verbs to reveal the presence of an author behind the text (Geertz, 1988).

The comparison between the cases involved cross-case searching for similarities and differences to help identify overall themes, concepts and relationships. These emergent findings were then compared with the extant literature to gauge similarities and contradictions. This linking of emergent concepts to the literature enhanced the internal validity of the research.

ISSUES OF DATA QUALITY AND BENEFIT-SHARING ARRANGEMENTS

This study involved data confirmation through the collaboration of different data collection methods across different sources of information, across various settings. The following techniques were employed during the research process to ensure validity and reliability:

- Development of a self-conscious research design – piloting research questions; **actively listening to and responding to participants' needs**
- Development of a multiple case study approach – encouraging validation of stability and construct across situations (Leonard-Barton, 1990)
- Gathering of information from a range of people with diverse links to each case study
- Use of a range of methods to collect information
- Undertaking of member/participant checks – repeatedly checking the emerging conclusions with the participants, as I collected and analysed information
- Demonstration of extended experience in the environment - hermeneutic research requires prolonged engagement in the environment under study
- Demonstration of persistent observation and provision of thick descriptions
- Provision of verbatim transcription
- Performance of a literature review and the linking of emergent concepts and ideas to existent literature

- Reflective/reflexive journaling – focusing on the awareness of myself as researcher and the effect I may be having on the research; recognising that “practising reflexivity strengthens the case for validity” (Riessman, 2008; p. 193), aiding research transparency through describing how interpretations were produced.

In order to ensure **I had ‘actively listened’ to community members and research participants**, I returned to each site in late 2008/early 2009 to discuss the summary and conclusions I had drawn over the time I had been in contact with people. Meeting with the individuals involved, I noted any changes to circumstances since I had left the field, and confirmed the descriptive data I had previously recorded was accurate. As a consequence of the self-reflexive research approach, the relationship between myself, the research participants, and future readers of the thesis became problematized. Like Lee & Ackerman (1994) wrote, I became increasingly aware of the risks associated with representation and recognised that the subjectivity of textuality could be of a contested nature. As a result, I tried to develop forms of communicative relationships with informants aimed more at subject-generated representation or negotiated representation (*ibid.*), by involving them in the initial stages of data analysis.

It was at this time that I also asked participants whether they wished to be personally identified, and whether the naming of the communities involved was thought to be appropriate. The response was overwhelmingly in favour of the identification of both people and place. Many spoke of the frustrations of anonymity, pointing at the subsequent lack of follow-up on issues raised. In general, people wanted their opinions to be recorded in the hope that assistance might be forthcoming on issues raised. Still, a few opted to remain anonymous and they have been quoted accordingly. In addition, **terms such as ‘Laramba Beading Ladies’ were** used to refer to fluid groups that engaged in varying aspects of the research, to varying degrees. In the case of the Ti Tree workshop participants, while gaining informed consent for their involvement in the research, I did not ask permission regarding the use of their names, so I followed the DK-CRC research protocols (2007) and decided to only name them in the acknowledgements. I learned from this experience to incorporate naming/identification questions in future consent forms from the start, as my original consent form did not include the option of whether people were happy to be named or preferred to remain anonymous.

Seasonality of the bush produce industries meant that I was not always able to be on-site during the harvest season to observe activities firsthand. As a result, I relied mostly on interviews and informal discussions, particularly regarding the bush foods and medicines.

This was due to harvest activities having taken place prior to my time in the field and no active wild harvests occurring during the span of fieldwork, due to drought conditions. Harvests on horticultural plots also occurred outside of the times I visited communities, as it was difficult to predict exactly when produce would be ready to pick. This presented a constraint to data collection, particularly in the APY Lands, as few people were actively involved in growing and collecting during the field visits. As a result, personal observations were largely combined with 3rd-person accounts provided by non-Aboriginal TAFE lecturers and community personnel, as well as documentation detailing harvest involvement and financial returns.

The research also suffered from gender bias, in that the majority of the people I worked with regarding their involvement in bush produce industries were women (at a ratio of 7:1 – i.e., seven women to every man). However, it was culturally appropriate for me to work with women in the communities I visited, and the bush produce activities I concentrated on were also undertaken by women in the majority – including bush bead jewellery-making, wild harvesting of bush tomatoes/desert raisins, and bush medicine production. Almost all the men I spoke with were involved in horticultural production of bush foods, although some were also still actively wild harvesting for customary use and/or gathering medicinal plants.

The use of the SL framework across all case study sites may have also biased data gathering, as information was sorted into categories based on the SLF developed during the first case study in the Far West Coast region. However, this framework was primarily used to sort and manage information, with modifications made to the original (Figure 7) throughout the research process. Additionally, the final data analysis combined findings from all the framework categories to develop insights, and avoid presuppositions (ref. Chapter 6).

Benefits to research participants derived from the research process rather than only in the final outcomes (as per *Desert Knowledge CRC Aboriginal Knowledge and Intellectual Property Protocol*, 2007). Specific examples of negotiated benefits include:

- Paid employment as co-researchers (Far West Coast case study)
- Industry updates and information (all case studies)
- Professional development opportunities (including attending and presenting at the Desert Knowledge International Business Symposium and Showcase (2009) – Anmatyerr region case study)
- Facilitation of inter-generational learning of traditional knowledge and skills (Anmatyerr region case study)

- Collaborative development of cultural and linguistic materials for the community school (Anmatyerr region case study – incl. DVD “From Tree to Store” and an accompanying book compiled by the **Senior Secondary Women’s Class**)
- Collaborative development of marketing material and strategies (Alice Springs and Anmatyerr region case studies – ref. **Appendix 1**)
- Skills development (including jewellery-making workshops – APY Lands and Anmatyerr region case studies)

In addition, negotiated benefits planned from the final outcome of the research (primarily after completion of the PhD thesis) include:

- Policy reports and recommendations
- Industry-specific summary/reports
- Community-style documents containing stories and major research findings – with practical tips and links to the individuals/organisations/government departments who can help people get into bush produce industry development
- Journal articles/conference presentations – both academic and non-academic, with potential for co-presentation/co-authorship with some of the Aboriginal people who participated in the research. (Conference presentations and journal articles completed to date include: White 2009a; White 2009b; Davies, White, Wright, Maru, and LaFlamme 2008).

Chapter 3: LITERATURE REVIEW OF LIVELIHOODS APPROACHES TO DEVELOPMENT

3.1 Definitions of key concepts

3.1.1 Livelihoods

Livelihood: means of support; subsistence (The American Heritage Dictionary, 2000)

Means of maintaining life (The Macquarie Dictionary, 1981)

A means of living or supporting life and meeting individual and community needs
(Development Alternatives Group, 2009)

In the above brief definitions of 'livelihood', the most important word or concept is 'means', for it is the ways and/or means of making a living that are key to survival. This focus on the way in which a living is obtained, (rather than a purely economic results-based approach), forms the basis of a broader definition popular with many rural development researchers and international aid organisations:

A livelihood comprises the capabilities, assets (stores, resources, claims, and access), and activities required for a means of living. (Chambers & Conway 1992; p. 7)

This definition focuses on people and their options to pursue certain activities to help generate a means of living. It recognises both *material* and *social* resources (labelled 'tangible' and 'intangible' assets in **Figure 9** below) as helping to support and enable livelihoods to be gained, and is applicable at different hierarchical levels – including the individual, household, family, and community.

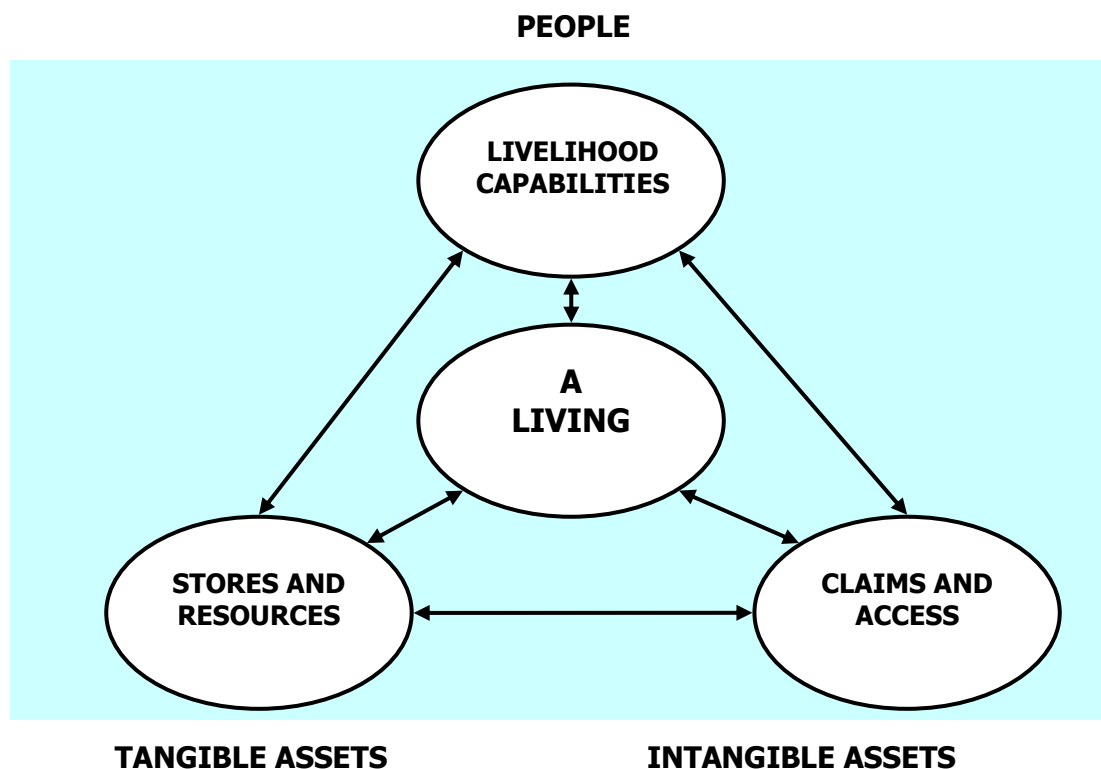
Adherents to the above definition (e.g., DFID, 2001) often identify five main types of capital (or assets)¹ utilised in building livelihoods: natural, social, physical, financial, and human capital.² These resources constitute the basic building blocks that allow people to undertake production, engage in labour markets, and participate in reciprocal exchanges (Ellis, 2000). In addition to such assets, Ellis (2000) emphasised how livelihoods are shaped by non-economic impacts, which he identified as either social impacts (e.g., gender or kinship relations), institutional (e.g., local customs regarding land tenure), or organisational (e.g., government land tenure laws), and pointed at how such impacts can strongly affect the access people have to different types of capital, opportunities, and services. Ultimately, a

¹ The terms 'capital' and 'assets' are often used interchangeably – "possibly due to some authors not being comfortable with the word 'capital' due to its implied economic focus" (Tony Cunningham, pers. comm., Dec. 2006).

² This is not an exhaustive list – other forms of 'capital' are discussed in Section 3.3.

great number of contextual considerations mediate livelihood choices, strategies, and outcomes, ranging from historical and political conditions and trends through to climatic, environmental, and seasonal factors, not to mention social and cultural relations. Ellis (2000) also highlighted the variety of livelihood options employed by people as a coping strategy to help minimise risk, and stressed the dynamic nature of such 'livelihood portfolios'.

Figure 9: Components and flows of a livelihood. (Chambers & Conway, 1992; p. 10)



Bebbington (1999) broadened the term 'assets' to encompass the *meaning* they give to people – meaning that is often influential in livelihood-based decision-making: "Assets... are not simply *resources* that people *use* in building livelihoods: they are assets that give them the *capability* to **be and act**" (p. 2021; original emphasis). Bebbington stressed this link to capacity and capability, emphasising the role of assets in helping to access resources and empower people to reproduce, challenge, or change the rules that govern the control, use, and transformation of such resources (*ibid.*). He pointed at the importance of other actors, both individual and collective, in helping build capacity, stating that:

...just as assets can be viewed as the basis of a livelihood, they can also be viewed as the basis of capacity, for clearly an (individual or collective) actor's ability to resolve a problem is affected by their skills, their alliances and networks, their financial resources and so on. Capitals are, then, simultaneously sources of capability (Bebbington, Dharmawan, Fahmi, & Guggenheim, 2006; p. 1962; See also: Sen, 1997; Moser, 1998; Scoones, 1998).

3.1.2 Sustainable Livelihoods

Sustainable refers to the maintenance or enhancement of resource productivity on a long-term basis. (WCED, 1987; p. 2)

The Australian Aboriginal peoples have been practising sustainable maintenance of their environments for over 50,000 years through adopting an approach of “reciprocal obligation **between land and people**” (Horton, 2000; p. 140). Although this *maintenance* has involved active management of landscapes (including extensive burning of country) which has almost certainly contributed to dramatic environmental changes and megafaunal extinctions (Latz, 1995; Flannery, 1994), it is based on an ethos of custodianship and a monitoring of change through individual and group responsibility. Actions are dictated by a strict and complex system of rules and laws and this has generally guarded against unsustainable resource **exploitation, “ensuring maximum production of food with minimum damage to the environment”** (Latz, 1995; p. 34). Bennett (1995) pointed to the recognition given to unity and mutual interdependence that establishes the moral relevance of non-humans to humans and vice versa. It is respect for such interdependence that essentially contributes to a more sustainable approach to livelihood development.

Unfortunately, such respect is now often dismissed as “the myth of the ecological Aborigine” (Lines, 2006), with scientific evidence of prehistoric environmental change being used to justify continued environmental pillage (Horton, 2000). However, despite sentiments that **the wisdom of the Elders provides “no models, no templates for living sustainably on this continent or on this planet”** (Lines, 2006; p. 21), **the collective wisdom based on thousands of years of acute observation, respect, holistic frameworks balancing competing needs, acquired understanding of ecological systems, and cultural and natural resource management cannot be ignored. For this reason, “it’s (firstly) important to recognise these Indigenous ways of knowing and knowledge systems where sustainability has always been a part of the Indigenous pedagogy”** (Juanita Sherwood, pers. comm., June 2006).

Until relatively recently, for the world of international development the concept of **sustainability “was most commonly used in considering environmental impacts of human activities, including resource depletion and pollution”** (Eckersley, 1998; p. 6). However, its wider application to ecological, economic, and socio-cultural systems now forms the basis of theories and frameworks focussed on the development of a higher and more equitable quality of life that enhances human well-being. Building on such understandings, Chambers and Conway (1992) divided the sustainability of livelihoods into two categories: *environmental sustainability* – concerning the external impact of livelihoods on other

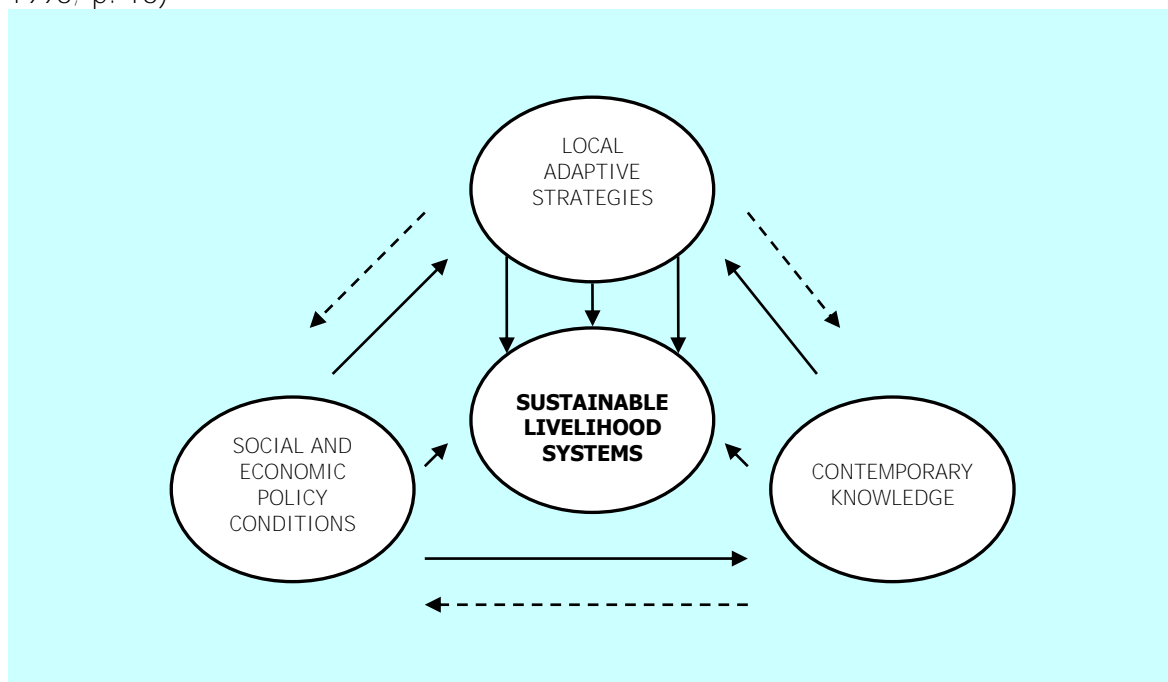
livelihoods, at both the local and global levels; and, *social sustainability* – relating to the internal capacity of livelihoods to withstand and cope with outside pressures. In this way, they defined **sustainability as “a function of capability and asset utilisation, maintenance, and enhancement, so as to preserve livelihoods”** (p. 12). They suggested a measure of ‘net sustainable livelihoods’ to encompass this social and environmental sustainability of individual livelihoods on livelihoods in general.

Rennie and Singh (1996) constructed a flow diagram to depict the three main areas of influence on sustainable livelihood systems in arid and semi-arid lands (**Figure 10**). They identified sustainable livelihoods as being most influenced by the local adaptive strategies that people and nature have evolved together (e.g., local knowledge, cultures, and ecology), but also recognised the importance of an appropriate environment of social and policy conditions, in addition to the input of contemporary technological knowledge.³ Rennie and Singh explained how the solid arrows in the diagram have often depicted dominance and alienation. However, they stressed that by changing them to a concept of support, local adaptive strategies can be better understood and more widely legitimated, thereby helping develop an enabling environment for sustainable livelihoods. An understanding of the role of relational patterns (social and cultural networks and relationships) between people at the micro level and patterns extending to the macro level of society are crucial to the enhancement of such livelihoods.

Importantly, Rennie and Singh (*ibid.*) also stressed **the fact that ‘sustainability’ can prove a difficult criterion to agree on in practice**, that is, there may be significant differences of judgement over what practices or livelihoods are sustainable (p. 17). Chambers (1995) also drew attention to the divergence of experiences and viewpoints by asking the question: **“Whose reality counts?”**

³ *The term ‘policy’ is used here to refer to political and economic externalities to local livelihoods – policies, legislation, economies, institutions at the sub-national, national and international levels, that impinge on sustainable livelihoods and adaptive strategies ‘Knowledge’ as used here is not just cerebral, but includes values, beliefs, skills, attitudes, and practices. ‘Local knowledge’ which informs adaptive strategies refers to knowledge owned and shared within the local community – comprising the intricate knowledge of local specialists, sub-groups and the communities as a whole. ‘Contemporary knowledge’ (as used here) refers to the body of formal, technical and scientific knowledge and technology relevant to the local situation – including climatic information, historical records, demographic information, epidemiology, etc. (Rennie & Singh, 1996; pp. 20-21)*

Figure 10: Towards sustainable livelihoods. (The dotted arrows show the influence of adaptive strategies on contemporary knowledge and hence on policy.) (Rennie and Singh, 1996; p. 16)



The concept of sustainable livelihoods comprises a number of sectors or activities that contribute to the local economy. Within the contemporary Australian Indigenous context, Altman (2001) referred **to such activities as the 'hybrid economy'**: comprising market, state, and customary economies. Each of these micro-sectors has its own set of rules, institutions, assets, stakeholders, and internal constraints. Each sector also interacts with other micro-economic sectors through the production or exchange of goods and services, or by investment from one sector in assets of another. The changing relationships between these micro sectors, and their response to external pressures and opportunities leads to the concept of adaptive strategies (Rennie & Singh, 1996; p. 17). As Rennie and Singh (1996) wrote, the concept of sustainable livelihoods **is not, therefore, a static concept: "Because of both internal and external dynamics, to be sustainable a livelihood requires the capability to respond to change, and to continually renew and develop adaptive strategies"** (p. 17). Commercialisation of customary or Indigenous bush produce is an example of an adaptive strategy currently being developed in Australia.

3.1.3 Well-Being

Empirically, well-being and its close equivalents seem to express a wide-spread human value open to diverse local and individual definitions... Well-being is often associated with (amongst other things) health, good relations with others, friendship, love, peace of mind, choice, creativity, fulfilment, and fun. (Chambers, 1997; pp. 1747-48)

Well-being is about more than living 'the good life'; it is about having meaning in life, about fulfilling our potential and feeling that our lives are worthwhile. (It) is shaped by our genes, our personal circumstances and choices, the social conditions in which we live, and the complex ways in which these things interact. (Eckersley, Wierenga & Wyn, 2006; p. 19)

The World Health Organisation's *Ottawa Charter for Health Promotion 1986* recognised several basic prerequisites to health and well-being, including peace, shelter, education, foods, income, a stable ecosystem, sustainable resources, social justice, and equity. The Charter also defined **health as "a resource for everyday life" (p. 1), whereby well-being is achieved through the realisation of aspirations, the satisfaction of needs, and the ability to change or cope with the environment.** Chambers (1997) similarly emphasised the need for livelihood security⁴ to enhance well-being, writing of the capabilities of people and communities as the means to positive livelihood outcomes. He spoke of sustainability and equity (including human rights, intergenerational, and gender equity) enhancing a more responsible well-being, whereby obligations to others, both now and in the future, are recognised (p. 1749) (see **Figure 11a**).

Such a 'responsible well-being' understanding is aligned with an Aboriginal sense of the **connectedness of people to country and kin, within the framework of traditional Law.** "The physical/biological, social, emotional/psychological, cultural, and spiritual well-being of the individual and community are aspects of a multi-dimensional understanding of health from **an Aboriginal perspective"** (Anderson, 1996; p. 68). These dimensions have more recently been depicted in a visual medium to provide a framework for a national mental health **strategy aimed at Aboriginal and Torres Strait Islander Peoples' mental health and social and emotional well-being** (see **Figure 11b: *The Dance of Life***).

Both frameworks show a multi-faceted, holistic understanding of health and well-being. However, when considering the Aboriginal perspective, greater emphasis is accorded the impacts that the history of colonisation has had on well-being (including inter-generational well-being) in this schema, as well as recognition of **"the various traditional and contemporary views, and the gaps in such knowledge"** (Social Health Reference Group, 2004-2009; p. ii). Additionally, land and kinship **play major roles in people's self-awareness and identity, impacting strongly on self-esteem, a sense of control and inclusion, maintenance of cultural heritage, and ultimately well-being.**

⁴ Here, 'security' refers to secure rights, physical safety and reliable access to resources, food, income, and basic services. It also includes assets (both tangible and intangible) to offset risk and ease shocks (Chambers, 1997; p. 1748).

Figure 11a: The web of responsible well-being. (Chambers, 1997; p. 1749)

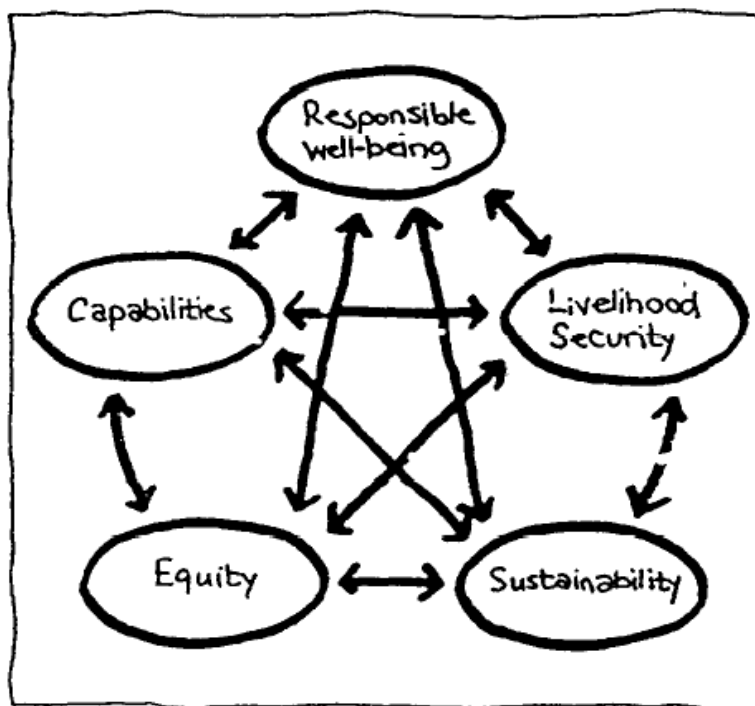


Figure 11b: *The Dance of Life* - Cover of the National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Well Being. (Social Health Reference Group, 2004-2009) (artist unnamed)



Chambers (1997) pointed out that while ill-being and extreme poverty go together, the link between well-being and wealth is most often weak or even negative.⁵ This emphasises the

⁵ Myers (2000) called the decline in reported happiness in the US "the American paradox", as an increase in national wealth has been coupled with a rise in divorce, teenage suicide, and violent crime rates, as well as an increase in the number of people reportedly suffering from depression. Offer (2006) argued that affluence breeds impatience, and that impatience undermines well-being by damaging the capacity to enjoy new rewards.

importance of valuing non-monetary returns and benefits to people's livelihoods in the quest for well-being enhancement. Eckersley (1998) referred to the broader term 'quality of life' used to encompass not only material well-being, but also the condition or state of being well, contented and satisfied with life (p. 6). He also pointed at how both well-being and **quality of life are concepts used in a collective sense, "to describe how well a society satisfies people's wants and needs"** (p. 6). Education and training, policy, the socio-political context, and international experiences and perspectives are all factors in need of consideration among the potential solutions for healing and restoration of well-being at the individual, family, and community levels (Social Health Reference Group, 2004-2009).

In a recent study focussed on gaining a better understanding of young people's well-being in Australia, Eckersley *et al.* (2006) found perceptions **of young people's health and well-being** to vary greatly - reflecting differences between academic disciplines, ideologies, and **generations (p. 7)**. They stressed the need to allow consideration for young people's own interpretations of the impact of social change on their lives and to recognise the importance of supporting the development of social and cultural resources to assist people to make sense of their world - to optimise their well-being by shaping social conditions to suit their needs, rather than to simply enhance the resilience of young people to change (pp. 9-10).

Still, despite emphasising the important role of social connection and engagement in well-being enhancement, Eckersley *et al.* failed to critically engage with the influence of culture beyond a primarily sociological perspective, focussing on the effects of increased materialism and individualism on Australian youths. Although raising the import of religion and spirituality to well-being, the research appears of limited relevance for remote-living Aboriginal youth. The only specific reference made to Aboriginal youths was provided through reference to central Australian research by Tacey (2002), which highlighted the power of ritual and spirituality in enhancing maturity and subsequent well-being. Growing up in Central Australia, Tacey commented on the effect of initiation on adolescent members of Aboriginal cultures – helping afford them a sense of place and responsibility.

In the arid regions of desert Australia, traditional rituals were often conducted to help in the regeneration of particular species, to help promote life and maintain resource levels (Mountford, 1976; Latz, 1995). **In her essay describing Aboriginal Australians' concepts of landscape and wilderness**, Rose (1996) used **the term 'rituals of well-being' to describe such practices**, emphasising the well-being of the country as well as human well-being. In his studies of Central Australia, Latz (1995) concluded that such ceremonies and rituals were conducted for each important food plant utilised by the desert Aboriginal people. Today, traditional dances and songs continue to be performed and paintings are created around

hunting and bushfood activities. Festivals and social gatherings provide important opportunities for traditional knowledge to be passed on to younger generations, thereby increasing individual and community well-being.

3.1.4 Indigenous Knowledge (IK) and Traditional Ecological Knowledge (TEK)

Traditional knowledge is a cumulative body of knowledge, know-how, practices, and representations maintained and developed by peoples with extended histories of interaction with the natural environment. These sophisticated sets of understandings, interpretations, and meanings are part and parcel of a cultural complex that encompasses language, naming, and classification systems, resource use practices, ritual, spirituality, and worldview. (ICSU Report, 2002; p. 3)

*TEK is first of all traditional. Traditions are enduring adaptations to specific places...the products of generations of intelligent reflection tested in the rigorous laboratory of survival. TEK is ecological knowledge. This is detailed knowledge of the natural environment – of the species it contains and how it functions, as well as **understandings of people’s** own place within it. (And) TEK is knowledge - a great sum of knowledge about the local environment – about its plant and animal species, about its soils and weather, and a detailed map of the local topography. How people use their knowledge is guided and motivated by their values and beliefs about the world and their place within it. (Hunn, 1993; pp. 13-14)*

The Canadian Royal Commission on Aboriginal Peoples (1996) described Traditional Knowledge as **the “cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment”** (ref. Vol. 4: *Perspectives and Realities*). Oral culture, coded and organised by knowledge systems for interpreting information and guiding action (*ibid.*), it is a system of self-management governing resource use (Johnson, 1992), which is not only a source of knowledge, but a way of life. Characteristically it is:

- *holistic and integrative, including all the range of species and processes in the particular ecosystem or catchment, as well as spiritual, historical, and cultural information;*
- *inclusive of the human species and their needs and activities as another member of the overall system;*
- *linked inextricably with social and cultural identity and values;*
- *qualitative rather than quantitative;*
- *incorporating intuition, feeling, and moral dimensions, rather than insisting on rational objectivity and neutrality;*
- *collective amongst the community, rather than a matter of individual private enterprise (although special healers and interpreters are recognised and respected)* (New Zealand Conservation Authority Report, 1997; p. 8).

Paci, Tobin, and Robb (2002) stressed the importance of legislation and regulatory agencies recognising and accommodating the epistemological differences between a Western use-based natural resource model and an Indigenous stewardship-based model, especially in

regards to conducting Environmental Impact Assessments. Likewise, it is important to acknowledge the epistemological Western bias in most sustainable livelihoods frameworks and approaches, to ensure indigenous rights and cultural knowledge are treated with appropriate respect and adequately incorporated into strategies for change. Most frameworks have failed to mention the intellectual assets inherent in indigenous communities. This shortfall has been addressed more recently by several researchers promoting the incorporation of new types of capital into the original SL framework, including 'cultural capital' (Bebbington, 1999) and 'information capital' (Odero, 2003). Communities must be supported to maintain, enhance, and develop their Indigenous Knowledge to strengthen long-term sustainable management of resources and corresponding livelihoods. Indigenous cultural and intellectual property rights also need to be protected to ensure such sustainable development occurs.

Traditional knowledge refers to the ways of doing and being – it is political, it is socially constructed and determined, and (as such) it is beyond individual ownership. It is intellectual and cultural systems which are: highly contextualised; localised; about place, family, and individual; and require proper and careful interpretation – including customary laws and protocols. (Muir, 2006)

Muir (2006) explained how the goal of his people - the Ngalia of the Leonora region in Western Australia - is to honour Elders and ancestors by preserving knowledge and making **it relevant in today's** information economy/age. He talked of the challenges faced, including intergenerational loss of knowledge, a perceived lack of relevance, exposure of knowledge in the public domain, limited legal rights to natural resources, and exploitation of the land, resources, and knowledge – including traditional research practices.

The consideration of such challenges proved pertinent to the discussion of bush produce enterprise involvement, as IK/TEK is fundamentally the type of knowledge utilised by customary harvesters of bush produce. In seeking to establish whether similar fears and limitations were being faced in the bush produce sector, the chosen research approach and methods aligned with locally identified ways of strengthening IK/TEK.

3.1.5 Intellectual Property (IP) and Indigenous Intellectual Property Rights (IIPRs)

An increasing range of guidelines and protocols are being developed to help protect, acknowledge, and respect traditional knowledge ownership and to collaboratively determine the rights of Indigenous people to benefit from the use of such knowledge. This has occurred in response to concerns relating to the unequal power relationship between

community members on the one hand and researchers, sponsors and consumers of research and development gained from Traditional Ecological Knowledge, on the other.

At an international level, there is a wealth of legally binding and non-legally binding instruments that may impact upon the protection and promotion of traditional knowledge and associated local practices. Legally binding agreements include: the UN International Covenant on Civil and Political Rights 1976; UN International Covenant on Economic, Social and Cultural Rights (UN ICESCR) 1976; the International Labour Organization Convention 169 Concerning Indigenous and Tribal Peoples in Independent Countries (ILO 169) 1989; and the Convention on Biological Diversity 1992. Non-legally binding agreements include: the UN Declaration on the Rights of Indigenous Peoples (UN DRIP) 2007, and the Intangible Cultural Heritage Convention (UNESCO, 2003). In addition to these rights-based approaches, there are standards set by the UN World Intellectual Property Organization (WIPO) (WIPO Convention 1967), dedicated to *the promotion of innovation and creativity for the economic, social and cultural development of all countries* through the evolution of an international IP system.

Still, as Robinson (2010) made clear, customary regulations surrounding knowledge domains are not easily reconciled through Western modes of governance or thinking. In this regard, more culturally informed understandings regulated through formal rights and also through customary norms and rules may offer protection and management of IP and bio-cultural knowledge in ways that are better aligned with local understandings of rights and ownership. At the international level, there have been important non-legally binding agreements or pacts made outside the UN framework, in which indigenous and local peoples were some of the main contributors. These include: the Kari-Oca Declaration and the **Indigenous Peoples' Earth Charter (1992); the Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples (1993);** and the Covenant on Intellectual, Cultural and Scientific Resources (see Posey & Dutfield, 1996). The World Council of Indigenous People (WCIP), the World Rainforest Movement (WRM), and the Coordinating Body of Indigenous Peoples of the Amazon Basin (COICA) are just some of the international organisations that have been established by Indigenous peoples to help promote legal recognition of their intellectual property. As Robinson (2010, p. 40) wrote:

These laws, agreements, and declarations provide various principles and mechanisms for the assertion of the rights of indigenous, minority and local groups. ... These sorts of rights-based approaches may provide important emancipatory or empowering effects where indigenous, minority and local groups seek them, and where states and external authorities allow them.

At the community level, Bio-Cultural Protocols (BCPs) embrace a community consultative process to develop clear terms and conditions to regulate access to their knowledge and resources. Bavikatte, Jonas, and von Braun (2009) indicated that by developing BCPs **communities are “better placed to make informed decisions about whether or not to engage with Access and Benefit Sharing (ABS), and when they do, to ensure that their interests are best served” (p. 1)**. Such protocols relocate TEK in its greater physical and cultural environment, allowing communities to determine how bio-trade and bio-prospecting may generate livelihood opportunities and best contribute to their development.

Being developed on a basis of Traditional Ecological Knowledge, the domestication of Australian native plants with new technologies and the exploitation of their uses for food and/or medicine is of increasing interest to government departments and private enterprises hopeful of positive socio-economic returns. However, Indigenous people need to be kept fully informed of current and potential industry development and provided with a forum to express their views if real benefits and recognition are to accrue. BCPs are a community-based tool to facilitate the interface between communities that want to engage in ABS on the one hand and ethical users of TK on the other, and could be developed with specific Indigenous communities across bio-geographical zones – including the Arid Zone. Existing Australian protocols, guidelines and policies in relation to IK/TEK governance and protection include: the Desert Knowledge CRC Aboriginal Knowledge and Intellectual Property Protocol, 2007; NAILSMA Guidelines and Protocols for the Conduct of Research, 2007; and Guidelines for Indigenous Ecological Knowledge Management (including archiving and repatriation) (Holcombe, 2009).

3.1.6 Empowerment, Human Rights, and Self-Determination

Paternal and colonial approaches to development have historically disempowered those whose cultural differences were not well understood according to dominant narratives. This lack of knowledge often resulted in the development of charitable paradigms to govern peoples and the relationships between different classes and groups, encouraging dependency (Wynne, 2000). Systems that disengage, that marginalise and disempower, continue to colonise. The conceptualisation of true empowerment must therefore be brought into question.

Empowerment has been described as increasing self-esteem, assertiveness, self-actualisation, and a feeling of control over one’s life rather than a state of dependency (Gross, 1985). It is a time-consuming process to foster and sits uncomfortably with strong pressures towards greater efficiency often emphasised by government agencies and policies

(Wynne, 2000). Rennie and Singh (1996) pointed to the popular use of this word in current social research to help legitimate studies and present them as politically correct. However, they encouraged more serious reflection on what the concept really entails, offering the **following definition: "Power is the ability to negotiate and influence outcomes in a particular environment. Empowerment is the process of gaining or granting power and has political, socio-economic, gender, and knowledge aspects, among others"** (*ibid.*, p. 23).

Knowledge is power. In the context of research, empowerment can be facilitated by making available information and skills that people want. Strategies include facilitating networking opportunities (Evans, 2006), developing the research process together with local people, as well as sharing and jointly interpreting the results. Engagement with communities that **moves away from an essentially 'extractive process' to one which better supports local people to empower themselves, allows local people to work with researchers to solve problems that the community has identified and to press for policy changes and tangible resources that will enable their adaptive strategies to succeed** (see dotted arrows in **Figure 10**). Within this context, information is a key asset increasing livelihood choices and **enhancing opportunities (Odero, 2003), combining with other types of capital to provide "the basis of an agent's power to act and to reproduce, challenge or change the rules that govern the control, use, and transformation of resources"** (Bebbington, 1999; p. 2022).

Participation, ownership, and empowerment at the individual and community levels demand institutional change. As Chambers (1995) explained, true participation must occur on both sides, while for ownership and empowerment to take place at the individual/ community level, non-ownership and disempowerment need to happen at the macro-level: **"In consequence, management cultures, styles of personal interaction and procedures all have to change"** (p. 197). **The World Development Report (World Bank, 2000)** spoke of facilitating the empowerment of poor people through making state and social institutions more responsive to them (p. 3), and by increasing market access and subsequent bargaining positions to expand the economic opportunities for the poor and socially excluded (p. 7). However, as Cornwall (2000) suggested, the idea of an automatic flow of 'empowerment' as a consequence of economic and institutional reforms may not be sufficient to address issues of inequality and inequity – rather, the idea of empowerment as **"a basic democratic and human right"** may be more effective in truly strengthening people's voices in the political process:

Lessons from experience indicate that inviting 'the people' to participate as beneficiaries or consumers is not in itself enough to bring about meaningful change. The challenge for the future is both to enable those excluded by poverty and discrimination to take up opportunities extended to them for influence and control

*and to exercise agency through the institutions, spaces, and strategies **they make and shape for themselves.*** (Cornwall, 2000; p. 78; emphasis added)

Self-determination is the idea that “all segments of humanity, individually and as groups, have the right to pursue their own destinies in freedom and under conditions of equality” (Anaya, 2000). It is a human rights norm that has greatly influenced international law which, although remaining state-centred, provides an important vehicle for setting standards and fostering awareness (Mazel, 2009). In regards the rights and concerns of indigenous peoples, the ILO Convention 169 (1989) recognised “the aspirations of (Indigenous) peoples to exercise control over their institutions, ways of life and economic development and to maintain and develop their identities, languages and religions” (preamble, para. 5). Building on the law of the Convention, the UN DRIP was adopted by the General Assembly in September 2007, after 20 years of deliberation (Davis, 2008), and although a non-binding document, it provides an important framework for a rights-based dialogue between peoples and states (*ibid.*). Ultimately, the development of an Australian bush produce industry that is truly based on equity and social justice needs to align itself with such international advances in **the recognition of indigenous peoples’ rights to self-determine.**

3.2 Development of the Sustainable Livelihoods Approach/Framework

The above concepts of livelihoods, sustainable livelihoods, well-being, Indigenous and/or Traditional Knowledge, and empowerment need to lie at the base of a sustainable livelihoods approach to bush produce industry development in Australia. By focusing on increasing empowerment, enhancing well-being, promoting sustainable outcomes for all livelihoods components and assets, and strengthening respect and understanding of Indigenous Knowledges, the industry offers a rare opportunity to assist in improvements to **Indigenous Australians’ quality of life. For this to occur, however, a socio-culturally respectful approach that focuses on sustainable livelihoods is needed.**

The sustainable livelihoods approach arose out of a reaction to debates about the **environment and development being dominated by ‘things’ instead of ‘people’, ‘the rich’ instead of ‘the poor’, ‘men’ as opposed to ‘women’, and ‘numbers’ instead of ‘qualities’** (Chambers, 1987; p. 1). In addition, a conventional focus on production, employment and cash income as indicators of well-being was increasingly identified as ethnocentric and reductionist, failing to account for the various priorities and strategies employed by poor people to obtain a living (Chambers & Conway, 1992).

In 1987, an advisory panel of the World Commission on Environment and Development put forward a concept of sustainable livelihoods that aimed to integrate the various academic and professional disciplines in developing a more practical concept and approach to poverty alleviation. Their definition of sustainable livelihood security was as follows:

Livelihood is defined as adequate stocks and flows of food and cash to meet basic needs. Security refers to secure ownership of, or access to, resources and income-earning activities, including reserves and assets to offset risk, ease shocks, and meet contingencies. Sustainable refers to the maintenance or enhancement of resource productivity on a long-term basis. A household may be enabled to gain sustainable livelihood security in many ways – through ownership of land, livestock or trees; rights to grazing, fishing, hunting or gathering; through stable employment with adequate remuneration; or through varied repertoires of activities (WCED, 1987; pp. 2-5).

Building on this definition, Chambers and Conway (1992) proposed concepts such as 'capability' and 'equity' to offer additional insight and focus for research and decision-making, and stressed the need to recognise the often transient, mobile, dispersed, and diverse nature of livelihood activities of the rural poor (p. 25). In addition, they cautioned against imposing (rigid) external structures; instead, they emphasised the importance of incorporating local conditions, priorities, beliefs, and needs into development frameworks.

Since these early days, a number of development agencies have adopted livelihoods concepts in their approaches to **poverty alleviation to help meet the United Nations' Millennium Development Goals (MDGs)**.⁶ According to the UK Department for International Development (DFID), the sustainable livelihoods (SL) approach is an amalgamation of various approaches aimed at promoting self-respect, reinforcing cultural and moral values, **diminishing powerlessness, and improving the quality of people's living and life experiences** (DFID SL guidance sheets, 2001). Key features of the approach include a developmental objective, a set of principles, and the development of a framework representing factors in a sustainable livelihoods system and their inter-relationships to help represent a more holistic and realistic view of livelihood systems (Farrington, 2001).

The most well-known SL framework was developed by the DFID in the UK (**Figure 12**), which has four main arenas:

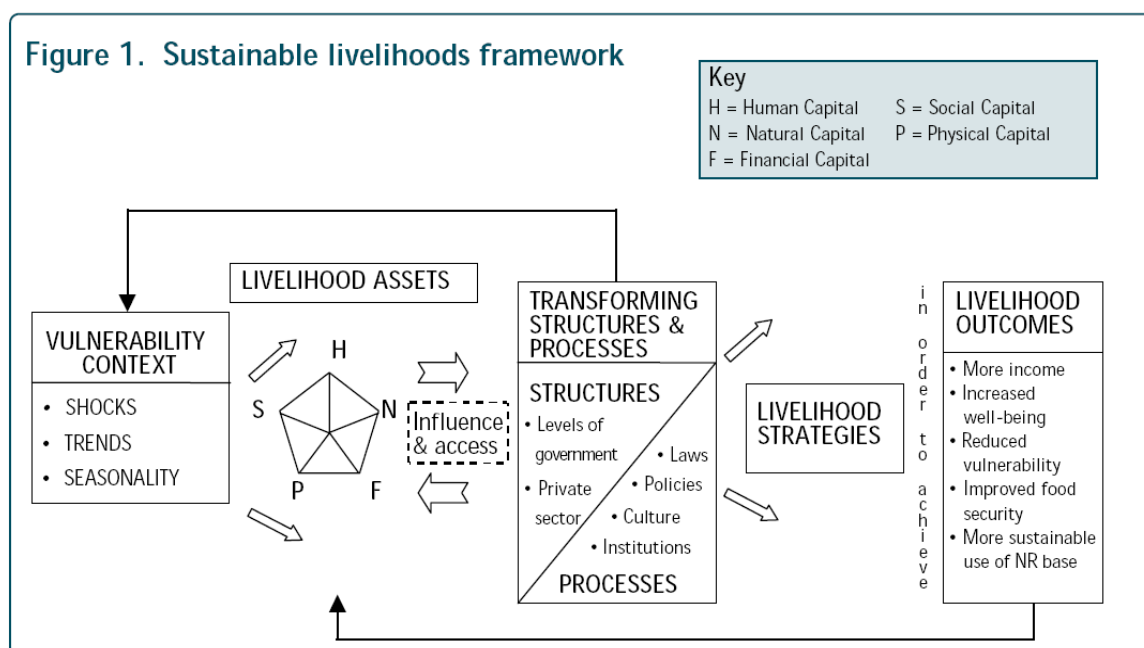
⁶ The eight Millennium Development Goals were formulated in the year 2000, when all 191 United Nations Member States pledged to meet the following goals by the year 2015: 1. Eradication of extreme poverty and hunger; 2. Achievement of universal primary education; 3. Promotion of gender equity and empowerment of women; 4. Reduction of child mortality; 5. Improvement of maternal health; 6. Combat of HIV/AIDS, malaria, and other diseases; 7. Confirmation of environmental sustainability; 8. Development of a global partnership for development (<http://www.un.org/millenniumgoals>).

- **'vulnerability context'** frames the external environment in which people live. It refers to trends in population, economics, resources, technology, policies, conflicts, natural disasters, employment opportunities, seasonality of work, and prices
- **'transforming structures and processes'** are the institutions, organisations, policies, and legislation that shape livelihoods, and the ways in which they operate and interact with people. These factors (including culture) can influence the vulnerability context of individuals or groups
- **'livelihood strategies'** are the range and combination of activities and choices people make to achieve their livelihood goals – these tend to change according to differing circumstances over time
- **'livelihood outcomes'** are the achievements of livelihoods strategies. These are closely associated with livelihood assets

(Adapted from the framework components of George, 2006).

Figure 12: Sustainable livelihoods framework – the DFID model (2001).

The framework describes a process that utilises the assets to which people have access in order to achieve a set of livelihood outcomes. It brings together an understanding of five groups of assets in juxtaposition with policy considerations, enabling an analysis of how they can be used to achieve desired outcomes, set against a context of vulnerability (DFID, 2001, Sustainable Livelihoods Guidance Sheets; Section 2).



Many NGOs and government development agencies have adapted the original DFID SL approach to meet their own needs, incorporating varying issues and modifying the framework and analyses to suit various settings. For example, CARE International uses a livelihood framework based around **the concept of 'household livelihood security'** (Frankenberger, Drinkwater & Maxwell, 2000); OXFAM employs a framework only at a strategic level, rather than at the field level, integrating its SL approach with a rights-based framework (Neefjes, 2000); FAO International looks at the approach as a way to help build local institutions and empower local populations (FAO, 2001); and the Institute for Development Studies (IDS) places emphasis on the range of formal and informal organisational and institutional factors influencing sustainable livelihood outcomes (Scoones, 1998; see also Hussein, 2002).

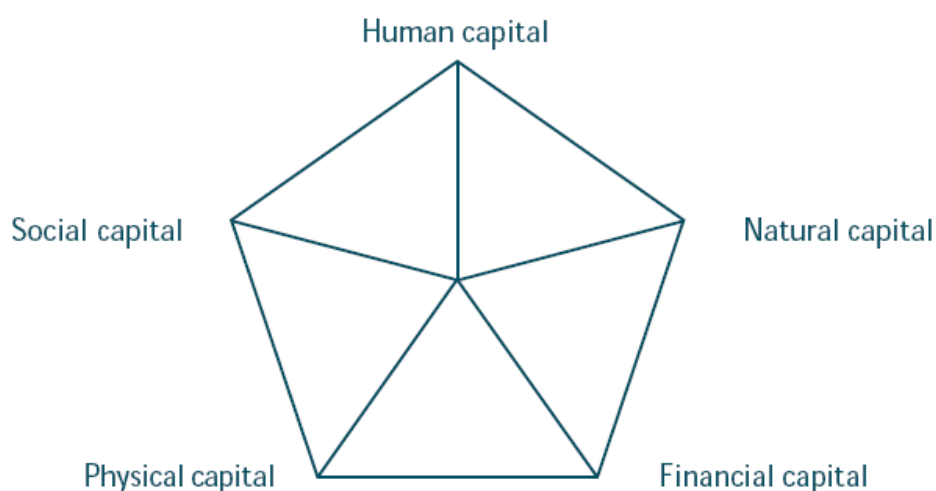
DFID also **distinguishes five basic categories of 'capital' (or assets)** – natural, social, human, physical and financial (see **Figure 13a**). An asset pentagon (**Figure 13b**) drawn for a particular social group, usually a community or household, is used to provide a dynamic **presentation of the group's strengths and weaknesses, to help with discussion on suitable starting or entry points for development projects and to identify possible impacts and trade-offs involved** (Fisher, 2002; p. 16). The point where the lines meet in the centre of the pentagon represents zero access to assets, while the outer limit represents maximum access. It is also recognised that pentagons will change shape according to different situations and over time (*ibid.*). Drawing pentagons is seen as an effective way of capturing the dynamic elements involved in the notion of sustainability (Carney, 1998).

In the context of international development, this SL approach is seen to offer an improved and more inclusive way of thinking about the objectives, scope, and priorities of **development that will better respond to people's** own views and understandings of poverty. It is reasoned that better understanding of why people pursue certain livelihoods provides development workers and project leaders with the chance to reinforce the assets and features which increase choice and flexibility (Fisher, 2001). At the project and policy levels, consideration can then be given to the institutions, organisations, policies, and legislation that help shape livelihoods by determining access, terms of exchange, and returns. In this way, the sustainable livelihoods approach has been seen to provide a more holistic and realistic view of livelihood systems, reflecting the complex and dynamic nature of the interconnected elements at the basis of improvements to well-being and quality of life (DFID, 2001).

Figure 13a: Description of capital/assets analysed through the SL approach (DFID model, 2001) – adapted for use in an Australian Indigenous context. [Modified from Fisher (2002; p. 17); Singh and Gilman (2000; p. 5).]

ASSET	DESCRIPTION	EXAMPLE OF APPLICATION
HUMAN CAPITAL	Knowledge, skills, creativity, adaptive strategies, capacity to work, health, physical capability	Employment and the ability to generate an income; training and education
SOCIAL CAPITAL	Government structures, decision-making power, community and other institutions, human contacts and relationships, group membership, kinship systems, trust, culture	Networks provide support for accessing and using resources; they also permit trading and sharing
NATURAL CAPITAL	Land/soil, water, air, vegetation, and natural resources such as minerals, wildlife – flora and fauna	Access to wild-harvested bushfoods will be influenced by the size of the resource and the nature of land ownership
PHYSICAL CAPITAL	Buildings, roads, machinery, crops/livestock, shelter, transportation, utilities, technological systems	Equipment needed for production; roads/tracks needed to help with transport of goods to market; increased access to information and expanded communication
FINANCIAL CAPITAL	Cash, savings, loans/grants/funding, pensions, welfare, Community Development & Employment Program (CDEP) payments	Finance enables purchases to help sustain health, maintain tools and equipment, etc.

Figure 13b: Livelihoods Pentagon (DFID model, 2001, Sustainable Livelihoods Guidance Sheets; Section 2).



3.3 Current considerations concerning the use and efficacy of various livelihoods approaches (including critique and comparison of the approach with other development frameworks)

Whilst sustainable livelihoods 'thinking' is potentially valuable in advancing our understanding of the complexity and socially embedded nature of people's lives, sustainable livelihoods frameworks and principles are too eager to codify this complexity and to produce toolboxes and techniques to change the internal management of development interventions. (Toner, 2003; p. 771)

Identified strengths of the SL approach are many and varied: its people-centred approach (cf. output-oriented approaches) (DFID, 2001); its holistic approach and recognition of multiple actors/stakeholders and the impacts of different policy and institutional arrangements; its challenge to sectoral divisions and its promotion of greater micro-macro level analysis and linkage; and, its increased scope of analysis to include areas not always dealt with and to focus on the impacts on the most vulnerable members of communities (Butcher & Biswas, 2003). However, despite broad recognition of such advantages, the SL approach is not without its critics.

Bebbington (1999) was one of the first to critique the original approach and framework, calling for a wider conception of the resources that people need to access in the process of composing a livelihood. He identified produced, human, natural, social, and cultural capital as assets in need of consideration when reviewing livelihoods, and, in particular, he emphasised social capital, economic and political relationships as key to resource access. Similarly, Beall (2002), Ellis (2000), and DFID/FAO (2000) criticised the original DFID framework for being insufficiently dynamic and flexible - failing to capture change, differential access to and control of resources, and relations of power, both external and internal to households.

Carney (1998) wrote that the framework does not intend to suggest that all five types of capital are equally important to all people (p. 22). However, various other weaknesses of the approach and difficulties in its implementation have been highlighted in the literature, including: the analysis and measurement of capital assets is unclear (DFID/FAO, 2000); there is a lack of appreciation of links and trade-offs between capital assets (Pretty, 1999); the approach requires more extensive recognition of socio-economic, historical, and cultural factors – including gender issues (Marzetti, 2001; Beall, 2002); the overall concept is ethnocentric and reductionist (Fine, 1999); SL principles and frameworks reveal locally specific detail, but it is difficult to formulate more general principles (Ashley & Carney, 1999; Shankland, 2000); the framework fails to illuminate the issue of relative power and

powerlessness in markets and trade (OXFAM review in Hussein, 2002); and, it offers no guidance on linking micro and macro levels of supply/trade chains or policy analysis (DFID/FAO, 2000; Shankland, 2000).

Rather than rejecting the SL approach outright, many present-day development agencies and organisations have adapted the basic SL principles and framework to meet their own specific needs. South-African based NGO *Khanya*, for example, has developed a modified SL framework that further analyses policies, institutions, and processes (PIPs) by dividing them into *macro*, *meso*, and *micro* levels. This has helped identify problems concerned with linking the local to more macro level planning structures (Carney, 2002; p. 64), and these distinctions will be adopted in the present research.

Another interesting modification is the focus on strategy implementation and support systems. With a history of extensive external support to Indigenous communities and enterprises in Australia (both from the private and public sector), factors affecting implementation warrant more consideration. Murray (2002) emphasised the typical **complexity of political contexts in which 'policy' is made, stating that repeated and explicit reflection on questions such as 'Who makes the policy?', 'How is it made?', 'For what purposes?', and 'For whose benefit?' need to be "an integral feature of livelihoods research from its inception"** (p. 491). As Murray argued, this would allow for a greater understanding of the macro-context and the political economy of change that is needed to frame key questions at the micro-level (p. 508).

3.3.1 Livelihoods and political capital

In terms of the capital assets forming the basis of livelihoods, Baumann and Sinha (2001) critiqued the SL approach for a lack of recognition of political capital. Based on their experiences in India, they emphasised the complex power relations influencing access to assets and the political power that people can draw upon in pursuing livelihood options. They pointed to how a lack of power and political capital can restrict livelihood choices and security, despite the presence of formal rights (see also Beall, 1997). They proposed the inclusion of a sixth capital asset – political capital – to provide the basis for a more structured and rigorous analysis of power.

The links between capability, power, policy, and livelihood assets/capital is topical in Australia (Sutton, 2009; Altman, 2001, 2006; Folds, 2001; Trudgen, 2000; Pearson, 2000, 2011). These links are particularly relevant to recent debate about and changes to welfare and the CDEP programme. Federal government welfare payments were fought for as an equal citizenship right in the 1960s. However, according to some - most notably Aboriginal

activist, Noel Pearson – **welfare is the cause of the development of a 'gammon' economy** (Pearson, 2000) in which there is no longer a link between work, or effort, and survival, or **income**. Pearson (2000) contended that in Cape York Aboriginal society, a sense of 'rights' developed **without an adequate sense of concomitant 'responsibilities'** (Pearson, 2005; Sanders, 2002), resulting in a 'passive welfare mentality' that disempowered and engendered a victim mentality. However, others have pointed to the economic and political autonomy afforded by such payments – enabling many Aboriginal people to live on their homelands in some extremely remote locations and also to pursue more traditional economic activities on Country (Altman, 2002; Arthur, 2001; Kerins, 2010). The CDEP programme in particular was said to have increased Indigenous autonomy and local-level control (Arthur, 2001; Rowse, 2004), also giving community councils the power to create apprenticeships, training positions, and full-time jobs (Kerins, 2010), as well as providing funding for small business activities and community enterprise development (Altman & Johnson, 2000; Gray & Thacker, 2000; Madden, 2000; Kerins & Jordan, 2010).

Changes to the CDEP programme mean that the community is no longer the employer, and has lost the autonomy to decide on the type of work or activity that community members will do. Outside government agency has gained control, representing a transfer of economic and decision-making powers (Kerins, 2010). In addition, views espousing remote communities as **"cultural museums"** (Vanstone, 2005; Hughes, 2007) and neoliberal **paradigms asserting that culture should not 'stand in the way of progress'** (Brough, 2006) are combining with an increasing focus on unsubsidised employment outcomes to effectively relegate **bush produce activities to the realm of "recreation"**, as opposed to so-called **"real work"** (Johns, 2006). These views are based on a pro-assimilation stance that increasingly views self-determination as **"an interruption to the process of integration"** (Johns, 2011; see also Altman 2003, 2007, 2009, Altman, Buchanan & Biddle, 2006, Martin 2006, Rowse 2004, Hunt 2008).

Contemporary Australian government policies emphasise mainstream employment and conventional commercial opportunities, with little discussion of the limited applicability this may have for Indigenous people living in remote communities or those who wish to pursue a more traditional lifestyle (see the **Australian Government's** draft Indigenous Economic Development Strategy IEDS, 2010). Such policies may yet further entrench Indigenous disadvantage (Scrimgeour, 2007), and encourage welfare passivity (Kerins & Jordan, 2010). Cut-backs to the CDEP program and the removal of Remote Areas Exemption are driving many people from remote communities into major service centres and urban areas (Aboriginal and Torres Strait Islander Social Justice Commissioner, 2005) and combined with

a moratorium on new housing on homelands⁷ may mean the end of the 1970s' outstations/homelands movement. Kerins (2010; p. 6) warns that under this policy **"homelands/outstations will stagnate and cannot develop"**, despite their historic role in reducing overcrowding and relieving social tensions. [refer to Rothwell, 2011 for an example of the media coverage of such 'urban drift', focusing on the mix of lack of housing and resultant overcrowding with alcohol abuse, lack of employment opportunities and social malaise. Also note, in contrast, the qualitative evidence that the availability of CDEP employment has had a positive effect in these regards, in Spicer 1997, pp. 2-3 & Ch. 11; and Misko 2004, p. 30].

These policies focus on adjustment to new circumstances and the idea that employment and health outcomes would improve if people relocated to urban areas. Such views suggest health and life expectancy levels for remote living Aboriginal people are much worse than for Aboriginal peoples living in non-remote situations, let alone than for non-Indigenous Australians (Hughes & Warin, 2005). However, research shows that social and health problems are not confined to remote communities (Glover, Tennant & Page, 2004); that high rates of unemployment are experienced by many Indigenous people living in close proximity to employment opportunities in urban centres (Taylor, 2006); and, that there are many benefits, including health benefits, available to Indigenous people who live on their traditional land (Altman, 2006; Burgess, *et al.*, 2009). Indeed, long-range studies of lifestyle disease incidence on outstations have found **people's health and well-being** in outstations is often much better than that of people living in town camps/rural centres (Rowley, O'Dea, Anderson *et al.*, 2008).⁸ So, the in-migration of people to larger towns and centres not only has huge economic cost implications for health services, but also a range of non-economic costs associated with loss of health. Rothwell (2011) recently highlighted the social demise of **"floating, displaced groups" in Alice Springs, whom he dubbed "service refugees" – i.e., "young and mid-life bush people drawn inexorably in to town, ...who cannot find any pathway or satisfying life-system in remote communities or the surrounding outstations"** (p. 4). These are people suffering from the micro-level impacts of policies that need to be fully appreciated when considering the effects and sustainability of engagement (or non-engagement) in the bush produce industries on people's livelihoods and well-being (see

⁷ See Paragraph 17 of the *Understanding (MOU) for Indigenous Housing, Accommodation and Related Services*, available at: http://www.aph.gov.au/senate/committee/indig_ctte/submissions/sub28_attachment_8.pdf

⁸This study found lower rates of diabetes, obesity, hypertension, and smoking measured in the community up until 1995 to be consistent with subsequent lower mortality rates approximately 10 years later (40-50% lower than the NT average for Indigenous adults). This finding compares with data published for the NT by the Australian Bureau of Statistics (ABS) which found that in 2004-05, Indigenous people living in remote areas had higher rates of diabetes, cardiovascular disease, and kidney disease than did those living in non-remote areas (Linacre, 2007). However, as Rowley *et al.* (2008) stressed, their long-term methodological approach is likely to be far more accurate.

Martin, 2006 for more discussion on the denial of Aboriginal agency and ontological/epistemological misconceptions between the culture of policy and Aboriginal culture).

Shankland (2000) stressed **the need to concentrate on the relationship of 'social capital' with power and empowerment to adequately understand people's political resources.** He argued that the vertical dimension of social capital – that is, the patterns of social relationships between more and less powerful people and groups in society (Grootaert, 1998) – needs to be better understood to help in analysis of the relationship between people and policy, and advocated the development of a model to show how policy affects livelihoods which would be compatible with the logic of the SL framework. Similarly, rather than advocating a political capital focus, Odero (2003) proposed **the inclusion of 'information capital' as a critical livelihood asset.** He identified information as providing leverage that can be used to **access other forms of capital (p. 6).** Defining 'information capital' as "different kinds of data endowed with relevance and purpose used by people to make decisions in pursuit of their **livelihood objectives" (p. 8),** Odero (*ibid.*) pointed to a lack of access to information causing an increase in the isolation of impoverished groups, preventing them from fully participating in economic development opportunities. This isolation was reflected in a recent article by Rothwell (2010) relating to Alice Springs' in-migration. In this article, Mike Gillam, a long-term resident "with close indigenous community links" was quoted as saying; "Alice Springs lacks egalitarian spaces where people can interact as equals: we don't cater effectively to indigenous people who, almost by default, adopt the role of bystanders looking in" (p. 4). Such statements align with Pearson's (2011) reflections on the power of choice being based on information and capabilities, and point to the lack of (economic) opportunities facing Aboriginal people who currently live in the town.

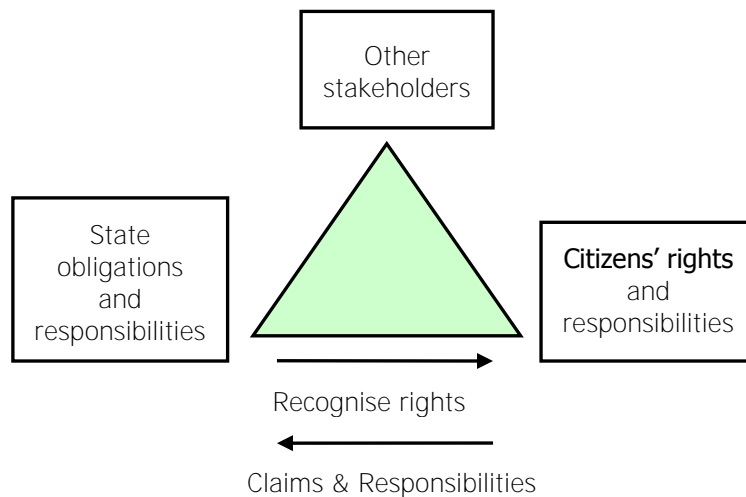
3.3.2 A human rights lens

Rights-based approaches to development have evolved in response to the attempts of development agencies to better understand not only what rights people *should* be entitled to, but also whether people can claim the provisions to which these rights entitle them and how the capacity of groups currently excluded from these entitlements can be enhanced (Farrington, 2001). This involves a broader stakeholder analysis than the SL approach, and makes more explicit recognition of mutual obligations and empowerment – in particular, government obligations to respect, protect, and fulfill human rights⁹ by playing a facilitating, provision or promotion role (Dillon, Barrett, Drinkwater *et al.*, 2001; p. 2). (see **Figure 14**)

⁹ The term 'human rights' is used in connection with those rights that have been recognised by the global community and protected by international law (UN, 1948, The Universal Declaration of Human Rights). They include all the rights essential for human survival, physical security, liberty, and development in dignity (Mayoux & Pinder, 2001).

Figure 14: Relation between stakeholders' rights and obligations

(Source: Dillon *et al.*, 2001)



To date, most SL approaches have tended to focus analysis on an individual (household) level, which is easier to manage, as the concepts of action and empowerment have become **"individualised and depoliticised"** (Toner, 2003; Cleaver, 2001). However, as Toner (2003) wrote, it is vital that any framework/approach recognises the importance of understanding how an individual livelihood is embedded in a particular context and how it responds to and shapes external policy and action. As Murray (2002) emphasised: **"SL frameworks and approaches need to be adapted to improve their ability to relate empirical micro-level data to structural, institutional and historical elements of the macro-context, and to capture the processes of differentiation, accumulation, and impoverishment that occur over lifetimes"** (p. 508). This will require far more engagement with complexity and with visible and hidden structures of power (Toner, 2003).

In reviewing rights-based approaches (RBAs) and SL approaches, Carney (2002) concluded that aspects of both could help inform a better overall approach to increased opportunities **and empowerment. Highlighting the strong link between people's access to assets and their ability to claim their rights**, Carney (*ibid.*) promoted the SL framework as a dynamic tool for **understanding the 'demand' side of rights** – i.e., to better understand which groups have voice and power (p. 40). The international development agency CARE utilises a SL framework for its RBA to emphasise the rights and responsibilities of individuals and institutions, and to help understand local perceptions of the legitimacy and value of such institutions (see Jones, 2001). CARE has shifted to a rights emphasis believing such an **approach offers "an even deeper grounding in respect for human dignity, and an acknowledgement that development is more about internal psychological and social processes of capacity building than it is about doing things for people"** (Carney, 2002). Farrington (2001) distinguishes between the two approaches by explaining that rights-based approaches are concerned more with *what people's entitlements are, or should be* – often

over the longer term; whereas SL approaches seek to assess what *impact* the presence or absence of certain entitlements **has on people's livelihoods** (p. 3). A broader emphasis on power relations and mutual accountability could help to foster links between the micro and macro level activities, better informing the development of policy and an environment of structures and processes that support people to build on their own strengths to access their rights and exercise their responsibilities.

A rights-based approach to SL and development is a framework based on the norms and standards contained in a number of international treaties and declarations, and is aimed at contributing directly to the realisation of one or several human rights. The UN Universal Declaration of Human Rights (1948) and The UN Declaration on the Rights of Indigenous Peoples (UN DRIP) (2007) (which the US, New Zealand, Canada, and Australia¹⁰ chose to vote against), provide international-level standards, by which to create norms of behaviour which can guide states (Davis, 2008). The UN DRIP in particular translates the right to self-determination from international law into the domestic context. As Davis (2008) explained, the Declaration combines positive rights for indigenous peoples and negative rights for states, dividing them into a number of themes, including rights to land and resources (UN DRIP, 2007; Articles 8, 10, 24-32), and political, social, and economic participation and development (Articles 3, 5, 11, 17, 20 -21, 23).

The benefit of the human rights **approach is that it is "based on both moral consensus and legal obligation"** (Nowosad, 2002; p. 3) with the goal **"to give people the power, capacities, capabilities, and access necessary to change their own lives, improve their own communities, and influence their own destinies"** (*ibid.*; p. 4). Based on principles of equality and inclusion, adopting a rights perspective could help in the acknowledgement of the needs of people often marginalised in development programs – including Indigenous people, women, and people involved in micro-enterprise. **With its emphasis on "free, prior and informed consent", the UN DRIP (2007) substantively supports processes that allow "meaningful choices by indigenous peoples about their development path" (UN Commission on Human Rights, 2004 ; p. 13; emphasis added), offering an important alternative framework to obdurate ethnocentric models of Indigenous economic development (see Kerins & Jordan, 2010; the draft Indigenous Economic Development Strategy (IEDS), 2010), contributing towards improving the relationship between Indigenous Australians and the state through participation, engagement and consultation (Davis, 2008). As Mayoux & Pinder (2001) wrote, "human rights and social inclusion must be at the heart of all policies for enterprise development and sustainable growth" (p. 5).**

¹⁰ On April 3, 2009, the Australian government (under the leadership of Prime Minister Kevin Rudd) formally endorsed the Declaration.

Some of the many international fora and organisations involved in championing Indigenous involvement in resource and environmental management include: The United Nations Forum on Forests (UNFF); the Convention on Biological Diversity (CBD); Agenda 21 and The Rio Declaration; the Montreal Process Working Group; the Forestry Stewardship Council (FSC); the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES); the International Union for the Conservation of Nature and Natural Resources (IUCN); the Intergovernmental Committee (IGC), and the World Intellectual Property Organization (WIPO). These international bodies develop statements of principle, agreements, and conventions designed to protect against exploitation by outsiders of natural and cultural resources. Many are currently searching for innovation in the area of intellectual property, as legal/political recognition of community rights over traditional knowledge remains scant.

The CBD was conceived as a practical tool for applying the principles of Agenda 21, which focus on the promotion of sustainable development through cooperation. The Convention is a multilateral treaty with 193 Parties, including Australia, which recognises that our personal health, and the health of economies and human society depend on a continuous supply of various ecological services. Ecosystem health is crucial to the well-being of nature and humans, with biodiversity loss threatening food supplies and sources of medicines, fresh air, and water. The three main objectives of the CBD are:

1. The conservation of biological diversity
2. The sustainable use of the components of biological diversity
3. The fair and equitable sharing of the benefits arising from the utilization of genetic resources (CBD, 1992; Article 1).

The CBD recognises the sovereign right of countries to determine access to genetic resources (Art. 15) and exploit their biological resources (Art. 3), noting that access to genetic resources should be on the basis of prior informed consent from the providers of resources and knowledge, and on mutually agreed terms that provide fair and equitable sharing of the results of research and development and the benefits arising from commercialisation and use (Art. 15). Additionally, the Convention calls for the equitable sharing of benefits derived from the use of traditional knowledge (Article 8).

Such principles of the CBD have formed the basis of the development of an international **regime on 'Access and Benefit Sharing' (ABS)**, aimed at ensuring that biodiversity-rich developing countries obtain a fair and equitable share of benefits arising out of the use of genetic resources originating from their territories, and that the sharing of benefits can

contribute to poverty reduction and sustainable development, human well-being, and a better understanding of the world-wide web of life (see <http://www.cbd.int/abs>). Examples of benefit-sharing include: provision of equipment, infrastructure support and technologies; payment of royalties; and joint ownership of IPRs. In addition to the Articles of the CBD, Parties to the CBD have formalised ABS through the Bonn Guidelines (2002) and more recently the Nagoya Protocol (2010), to assist governments in the adoption of measures to govern ABS. These guidelines and protocol focus on Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) for access to and use of genetic resources (*ibid.*).

Sullivan and O'Regan (2003: pp. 42-43) emphasised the importance of using such international agreements to help with biodiversity recognition at the local level, in addition to aid countering the hegemonic discourses that occur at varying levels. However, although the CBD creates a moral obligation to employ the sentiment of the Convention, it is not binding until it is enacted and adopted as domestic law (Richardson, 1998). Still, like the UN DRIP, the CBD provides a framework that states can adopt to support and strengthen their relationship with indigenous peoples, to help in the development of domestic laws and policies that align with international standards.

At the same time, the universal human rights perspective must be balanced with that of **"culturally and locally informed agency"** (Holcombe & Sanders, 2007; p. 339). Holcombe and Sanders (2007) stressed the need to respect people and their choices, while acknowledging **"the context which limits those choices"** (p. 346; see also Sutton, 2009). For example, along the lines of normative philosopher Martha Nussbaum (2000), they stressed the need to **consider "conditioned satisfaction"** when defining choice and opportunity, particularly in the (Australian) context of a colonial history of marginality and violent subversion (p. 346). They also pointed to an Aboriginal cultural history wherein mobility and family obligations are valued, while material acquisition is disregarded (Musharbash, 2008); at the same time, cautioning against (purely cultural) explanations which may entrench the status quo.

In considering these arguments, a rights-based SL approach in Indigenous Australia must be modified to respect local cultural understandings and world views. As Dube (1988) wrote: **"...tradition and culture cannot be taken for granted, they do not necessarily adapt to the demands of development. They are intervening variables of considerable power. Policies of economic growth and development have to learn to live with them"** (p. 510). Folds (2001, p. 73), for example, wrote **that despite 'caring and sharing' being lauded as a cohesive feature of Indigenous life and forming a fundamental assumption in much Australian government policy, the social context in which it occurs (i.e., the *walytja*, family) is not usually considered** (Myers, 1986). Similarly, in regards bush produce commercialisation, ABS needs

to occur from the cultural context on which the respective TEK/IK depends and which reciprocally depends on it. Biocultural Community Protocols (BCPs) are increasingly touted as offering a better way of protecting the mutually interdependent integrity of TEK/IK, indigenous communities, and biological diversity (Robinson, 2010; Natural Justice, n.d.).

3.3.3 Cultural capital, identity, self-determination, and social capital

In regards to the development of an Indigenous Australian SL framework, therefore, the addition of '*cultural capital*' to the list of livelihoods assets is crucial (**Figure 15**).

Figure 15: Description of cultural capital, for inclusion in SL framework.

ASSET	DESCRIPTION	EXAMPLE OF APPLICATION
CULTURAL CAPITAL	Set of ideas, practices, beliefs, traditions, and values serving to identify and bind people together; sites and structures/objects endowed with cultural significance	Cultural taboos may prevent certain plant or animal species from being harvested for commercial purposes

Most livelihood frameworks and approaches to date have not provided researchers and practitioners with clear guidance on how tradition and culture can be incorporated into such approaches (Cahn, 2002). Lack of recognition of cultural capital caused Bebbington (1999) to critique the DFID SL model, where culture is listed only as a transforming process affecting the vulnerability context (see **Figure 12**). Instead, Bebbington recognised culture as underpinning all aspects of livelihood strategies, outcomes, and goals – helping form identities, mediate social interactions, inspire, and ultimately empower people - and pressed for investment in social capital to help people build, control, and defend all of their assets.

Hooper (1993) reviewed socio-cultural aspects of development in the South-Pacific, in particular Western Samoa and Fiji, pointing at the economic security provided by the social support networks of traditional cultural systems. Highlighting the intense, multi-faceted **nature of relationships in the region's small-scale societies**, Hooper wrote of reciprocal **exchanges and redistributions being "the cement of this sort of social order", rather than market exchange** (1993; p. 322). Based on such studies and overviews, Cahn (2002) developed a SL framework for the Pacific, emphasising local culture and traditions shaping and influencing livelihoods. In the definition and development of this modified framework, culture and tradition have been more strongly linked to: risks and the vulnerability context; influencing structures and processes (such as societal norms, gender roles and relations, organisations, and traditional politics); access to and control of resources; choice and

success of livelihood strategies; priorities for livelihood outcomes; and incentives to which people respond (*ibid.*). **Cahn's** study provides insight into the diversity and extent of cultural impacts likely to be affecting the livelihoods of Indigenous Australians, highlighting the rich cultural basis in need of consideration in the development of more equitable, appropriate, sustainable approaches to Indigenous Australian involvement in the bush produce industries.

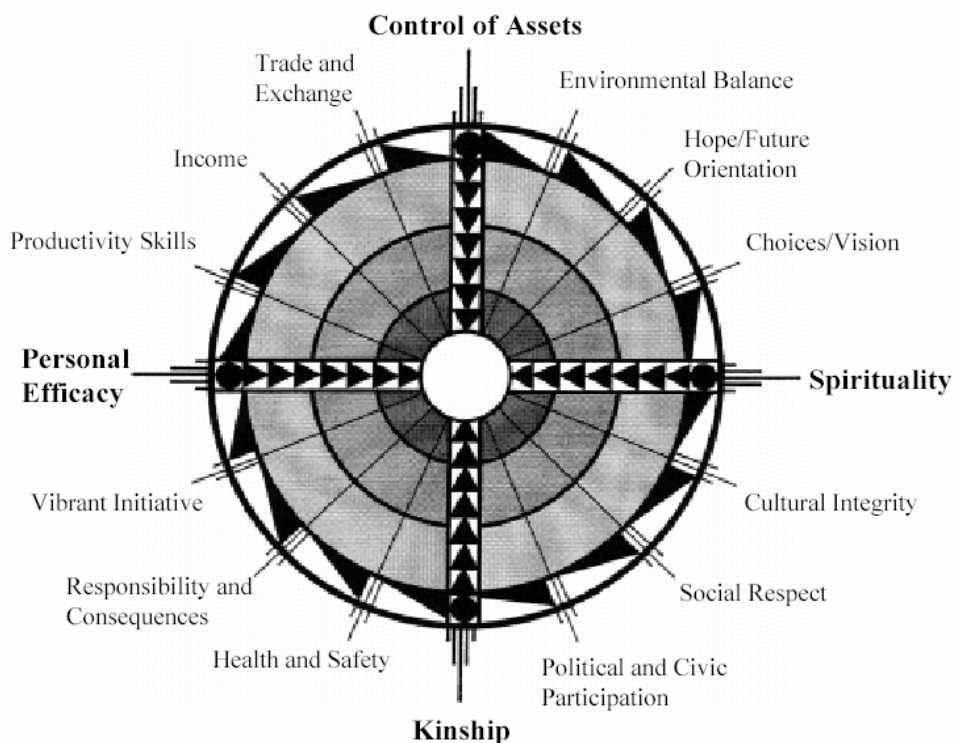
Thomsen and Davies (2005) emphasised this in their study of the social and cultural **dimensions and constraints regarding Aboriginal people's involvement in the commercial** harvesting of kangaroos. They concluded that through more talking and listening, this **industry could develop as "clean, green and socially just" (p. 1243), developing greater** understanding of the subsistence, economic, and cultural values of the marsupials and extending the idea of industry development to include culturally appropriate harvest and supply between Aboriginal groups/communities. As Schreiber (2002) wrote, traditional local knowledge cannot simply be incorporated into bureaucratic systems of science and **management, "for the language of TEK to be dominated by verbs like 'collect', 'harvest', 'extract', and 'use'"(p. 368). Rather, it must be recognised that when knowledge becomes** re-contextualised into systems of management, relations of power tend to shift, and local people can experience a loss of control over decisions that affect their lives (Schreiber, 2002). For this reason, it is imperative to protect the rights of Indigenous people to on-going control of their traditional knowledge and intellectual property.

First Peoples Worldwide (FPW) is the international arm of the First Nations Development **Institute, USA. Their mission is "to assist Indigenous peoples to control and develop their** assets and, through that control, build the capacity to direct their economic futures in ways **that fit their cultures" (FNDI, 2006a; homepage).** FPW has identified nine broad asset categories – adding political assets, cultural assets, institutional assets, and psychological assets, to the usual five associated with the SL framework. In this way, they emphasise the ability of institutions and organisations to attract resources to communities and recognise how the legal rights and claims that an Indigenous community may have can support the ownership and control of economic assets as well as helping create new economic opportunities (e.g., through recognition of land ownership). Social relations and networks (e.g., kinship systems) are recognised as key to building and maintaining each of the assets, including the customs, traditions, Indigenous Knowledge, and intellectual property that underpins a community, and there is an appreciation of the need for security, control, and confidence in providing incentives (FNDI, 2006b; pp. 21-22).

The First Nations Development Institute has developed a framework (**Figure 16**) called **'Elements of Development' that is aimed at 'ethnodevelopment' – i.e., "development that**

comes from within” and which is based on the strong tradition of sustainable management at the core of many communities (FNDI, 2006b; p. 13).

Figure 16: The Elements of Development. (FNDI, 2006b; p. 26)¹¹



In this model, culture is regarded as a potential catalyst to development, rather than an impediment, and development is treated as a systemic process, rather than a project. The framework is designed to help individuals and groups to identify and qualitatively assess the multi-dimensional (and multi-cultural) impacts of projects on community development, aiming to help people empower themselves through the recognition that their values, belief systems, and traditional knowledge are valid and important (*ibid.*; p. 14). The framework was developed with Native American Nations of the United States, but has recently been used to assess Indigenous development experiences outside of the U.S., in Africa, and South America (see FNDI, 2006b).

Similarly, results of the Harvard Project on American Indian Economic Development (2004) have identified three main ingredients for sustained, self-determined social and economic development: sovereignty, institutions, and culture. Not surprisingly, researchers found that when tribes make their own decisions about what approaches to take and what resources to develop, they consistently out-perform non-tribal decision-makers. The study stressed that assertions of sovereignty must be backed by capable institutions of governance for development to take hold, and successful local economies supported by culturally

¹¹ The circle represents the interconnectedness of all things and the balance of life. All the elements are interdependent and further connected through concentric circles on the individual, project, community, and national levels (FNDI, 2006b; p. 26).

appropriate institutions of self-government that “enjoy legitimacy among tribal citizens” (The President and Fellows of Harvard College, 2004; p. 1).

Speaking at an International Symposium on Global Desert Opportunities held in Alice Springs, 2006, a respected Central Australian Aboriginal Elder, Rose Kunothe-Monks, passionately emphasised the role of identity formation and self-awareness in helping Aboriginal people to face a myriad of contemporary issues to achieve well-being.

I am worried about the desert people. ...We are on the path of cultural suicide...and many young are on this path. (Kunothe-Monks, 2006)

Speaking of the drastic changes she has witnessed in the lives of Aboriginal people – including a decrease in cohesion amongst community members; an increase in sickness, violence and self-harm; the breakdown of law and order, and a growing conspiracy of silence – Kunothe-Monks (*ibid.*) also pointed **at the need for internal solutions based on ‘self’ development and individual response to change, seeing self-acceptance as being the most important knowledge for Aboriginal people in the future:**

Ultimately we are all on journeys of change. We are not static. We are citizens of the globe. (However) in the face of globalisation, we seem unable to adapt. (The question seems to be) what to retain in this process of change, for it cannot be at the expense of our identity. No-one has the right to completely forget their roots.

Kunothe-Monks advocated adaptation of new approaches and new knowledge for new situations, **emphasising that ‘victim’ cannot be part of this – rather, “self-awareness, group-awareness, and access to new knowledge will take us forward. A new sense of identity to connect with future pathways”** (*ibid.*). Similarly, Pearson (2006a) called for the recognition **of Aboriginal people’s rights and responsibilities as those** of a national minority. He criticised **an understanding of rights based on “racial thinking”, whereby terms such as ‘discrimination’** have been turned against his people (p. 26) and patronizing approaches continue within a passive welfare system (2006b; p. 29).

It is clear from such discussions that *sustainable livelihoods approaches need to be developed from within*, to be informed and shaped by the very people whose livelihoods and well-being are in need of support and improvement. However, as Bebbington *et al.* (2006) wrote, it is also necessary to take into account the structuring effects of intersecting processes of state formation and economic development on local capacity. Internationally, **this idea is linked to the ‘centralised power’ vs. ‘decentralised, self-determination’** approaches and policies influencing broader development agendas. It has resonance in **Australia, as the current political climate struggles between the two ‘power poles’ – giving power..., but keeping power.** Bebbington *et al.* (2006) focused particularly on the way

resources that inhere in social relationships are embedded in the structuring processes of **political economy, affecting “the sources of and constraints upon the political agency of disadvantaged groups”** (p. 1959). **By working** with a framework that links a political, economic approach to rural development with social capital, Bebbington *et al.* (2006) suggested **that “such an analysis can illuminate the forms taken by and the effectiveness of village-level collective action in ways that either purely political economy or social capital approaches do not”** (p. 1958).

With respect to the role of social capital, we can follow a definition that it is: **“a broad term encompassing the norms and networks facilitating collective action for mutual benefit”** (Woolcock, 1998; p. 155). Grootaert and van Bastelaer (2001) added **that it includes “the institutions, the relationships, the attitudes, and values that govern interactions among people and contribute to economic and social development”** (p. 4). Former vice president for *Environmentally and Socially Sustainable Development* at the World Bank, Ismail Serageldin, said social capital refers to the internal social and cultural coherence of society, **being “the glue that holds societies together** and without which there can be no economic growth or human well-being” (Krishna & Shrader, 2000; p. iii). **To date, there is scant** understanding of the role of social capital in livelihood development and access to resources; however, it is recognised that social relations can facilitate access to various resources and financial capital. For example, strong regional and national organisations have been linked to opening up market possibilities and aiding the regulation of resource use and control (North and Cameron, 1998). In addition, case studies from the *Social Capital Initiative* (SCI) of the World Bank documented that social capital can directly enhance output and lead to higher productivity of resources such as human and physical capital (Grootaert & van Bastelaer, 2001). Socially supportive relationships have also been linked to health and well-being improvements – including a decrease in suicide rates (Hassan, 1994).

“In essence, where human capital resides in individuals, social capital resides in relationships” (Woolcock, 2001; p. 12). For this reason, Woolcock (2001) advised investment in the networks and social institutions that produce measurable outcomes, such as **‘trust’, and pointed at the need to recognise** the multidimensional nature of such networks – including relations between family members, close friends, and neighbours **[alternatively known as “bonding” social capital (Gittel & Vidal, 1998)] vs. more distant friends, associates, and colleagues [also known as “bridging” social capital (*ibid.*, 1998)].** Woolcock (2001) also stressed **the ‘vertical dimension’ of social connections (or “linking” social capital)** to people in positions of power, and argued that it is different combinations of

these various types of relations, embedded in an institutional context, that are responsible for the range of outcomes.

In a similar way, Altman (2002) wrote of social capital in Aboriginal communities as being **“well adapted to customary productive activity where rights in land and resources are well defined” (p. 37), but stressed** that this social capital is poorly adapted to the market. Strong **horizontal networks within and between extended family groups (i.e., ‘bonds’), but weak links beyond (i.e., ‘bridges’ and ‘links’) mean sustained access to formal institutions** is often difficult to obtain. Rather, contact is usually predetermined and administered by the state through the provision of services and welfare, or more recently through competitive tendering and contractualism, thus tending to ignore or underutilise the unique social resources already in existence, and helping to erode levels of empowerment and self-determination (Myers, 1986). Still, the World Bank (2007) warned that dense family networks may also limit economic growth by imposing barriers to integration within external networks – **“high levels of internal trust may generate distrust of non-family members and institutions, preventing productive relationships. ...Kinship networks may place heavy obligations on entrepreneurs that divert resources away from current and potential investments”** (*ibid.*; website). Portes (1998) also summarised four negative consequences of social capital: exclusion of outsiders, excess claims on group members, restrictions on individual freedoms, and downward levelling norms.

Woolcock (2001) pointed to the importance with social capital of intermediaries such as non-governmental organisations in helping to forge access to formal institutions, emphasising their ability to earn the confidence of (marginalised) people as well as the respect of institutional gatekeepers. He described **such relations as: “mutually beneficial and accountable ties between different agents and agencies of expertise” (p. 16)**. Bebbington and Carroll (2000) studied supra-communal organisations in South America, finding they helped build local negotiating capacity and linkages with product and input markets. They concluded **that “structural social capital can be induced and reinforced by purposeful external intervention...building on existing or latent** social resources, finding incentives of strong common interest and gradually transferring responsibilities for management and problem solving” (pp. 41-42). In regards to the Australian bushfoods industry, the intermediary roles played by wholesalers of raw produce and the development of Indigenous social organisations are crucial in linking individual, household, and community activities to the broader economic market, accessing resources to build up other capital assets of such organisations and communities by investing in human capital formation, the development of administrative systems, training, and infrastructure (Walsh *et al.*, 2006b).

Still, Grootaert and van Bastelaer (2001) warned that although external agents can help in facilitating the creation of social capital, their presence can create dependency on the part of the community (p. 17), and as economic development proceeds and markets develop, local and indigenous forms of social capital are typically replaced by more formal and larger-scale networks and institutions (p. 24). They argued that building social capital through community development therefore requires triggering a process of social reorganisation, starting with the creation of small groups within existing social solidarities and facilitating horizontal links across these groups while seeking vertical links with state and private organisations. Such an approach is being developed by the Cape York Institute for Policy and Leadership in northern Queensland, where a regional partnership approach is helping link levels of government, community, and the private sector (see Cape York Institute, 2007).

Woolcock (1998) stressed the need for a more dynamic than static understanding of social capital. He wrote **that social capital has both 'benefits' and 'costs', that groups can possess 'too much' or 'too little' of it in terms of the amount required for efficient economic exchange, and that the sources of social capital required to sustain this exchange at one point in time may shift as transactions become more or less complex** (p. 158). Cleaver (2001) likewise criticised the SL approach for conceptualizing culture and social relations as **"a static 'resource bank' from which social capital may consciously be drawn to smooth and facilitate the implementation of good resource-management decisions"** (p. 28). In contrast, Cleaver suggested that **institutional evolution is more ad hoc, as "institutions of cooperation are embedded in everyday relations, networks of reciprocity and the negotiation of cultural norms rather than on the impositions of contracts, assertion of legal rights, or exercise of sanctions"** (p. 28). She believed **a concept of 'institutional bricolage' would better capture the central role of social relations than one that concentrates on assets – basing her ideas on the socially embedded nature of institutions for common property resource management and collective action she observed in Tanzania and Zimbabwe. She argued against the introduction of 'formal' modern institutions or organisational arrangements that rely on "principles derived from abstracted and universalised 'design principles' "** (p. 35), warning that they may bypass or contradict those principles inherent to local decision making and cooperation and, in doing so, may erode rather than build social capital (p. 35).

Such thoughts support an approach whereby government institutions link into pre-existing community-level organisations, approaches, and constructs where possible and/or appropriate, or at least offer external assistance that is sensitive to local socio-organisational issues, rather than attempting to build parallel structures according to ethnocentric views on **how things 'should be done'**. As Bebbington and Carroll (2000) wrote:

This is not to say that design is unimportant, but rather that social capital, and organizational capacity more generally, is best built inductively rather than ideologically, and based on a sound knowledge of local history, culturally patterned social relationships, and expectations. Such considerations are especially important if successful bridges across different interest groups and existing informal and formal institutions are to be built. If rigid designs are imposed in cases where there is a multiplicity of interests and informal institutions already working (i.e., the normal scenario) then rather than induce social capital, the intervention may well elicit social conflict (p. 39).

Bebbington and Carroll also found that each of the strongest supra-communal federations studied during their research in the Andes had a long-standing relationship with an external actor – relationships which often revolved around key individuals. They described these **relationships as “relationships of reciprocal accountability”, rather than dependency**, due to the greater transparency and ability to achieve usually promoted by such unions, and stressed the need for sensitivity, dedication, and above all flexibility in building and sustaining such partnerships (p. 43).

3.3.4 Further critical analysis of the Sustainable Livelihoods approach

The SL framework is based largely on experiences from the English-speaking development world. French and Spanish practitioners have experienced difficulties in working with some of the terms and concepts that cannot be easily translated (DFID/FAO, 2000). This only **serves to highlight the ‘challenge’ of translating such ideas across differing epistemologies and ontologies**. An alternative people-centred approach used primarily to date in the francophone West African states is the *Gestion De Terroirs* (GT) approach. This approach has its primary focus on the *terroir* (i.e., the place where people live), especially in regards to the management and control of access to natural resources. **A *terroir* is regarded as “a socially and geographically defined space within which communities’ resources and associated rights are located in order to satisfy their needs”** (FAO, 2001; Ch. 2). This concept of place as being both socially and geographically defined has strong relevance to an Indigenous Australian approach to well-being and livelihood enhancement.

Chambers (1997) pointed **to the risk attached to connecting ‘things and numbers’ and ‘people’ through applying terms such as ‘capital’ and ‘assets’ to the human, social, and cultural dimensions, as “these (labels) may standardise, depersonalise, and miss much that matters to people, and may purport to measure what cannot meaningfully be measured”** (p. 1745). Quantification and definition of capital assets is fraught with difficulties, as is understanding the relationships between assets, how they change over a lifetime, or how having high levels of one particular asset may compensate for low levels of another (Frankenberger, Drinkwater & Maxwell, 2000). **For this reason, “the breaking down of people’s livelihoods into ‘boxes’ of assets may have only a superficial value”** (Toner, 2003; p.

773). Still, Chambers (1997) admitted that such labels make it easier for economists to incorporate people and social institutions into their frameworks. Similarly, Woolcock (2001) pointed at the way in which such terminology provides a common discourse across disciplinary, sectoral, and methodological divides (p. 75). Seen in this light, the SL framework becomes an academic exercise of limited application.

Adamson (2006), president and founder of the First Nations Development Institute, spoke of the Western economic belief system being based on the values of competition, materialism, acquisition, accumulation, ownership, growth, and immediacy. She contrasted this with a **“Native peoples’ understanding” based on “the totality of the whole”**, where the affirming value system includes harmony, prudence, reciprocity, distribution, kinship, sustainability, and caring for future generations (p. 2). In emphasising the need for assets to be understood and organised in accordance with indigenous **peoples’ belief systems**, Adamson cautioned against the adoption of any customary Western conceptual scheme that cannot accommodate the holistic richness of indigenous peoples’ **relationship to nature and the** tribal values of kinship, balance, reciprocity, and interconnectedness (pp. 2-3), advocating the need for a spiritual base in development programs.

To summarize, this review of major concepts in SL has shown that there appears to be a shared hub for a SL approach but that different local contexts require a different approach and emphasis on different aspects of the context. An analysis of the influence of external policies and action must combine with the recognition of individual rights and responsibilities - including, importantly, local socio-cultural (e.g., Indigenous) rights. This is crucial to ensure SL approaches identify and create opportunities, and facilitate access to them. In this light, the main message is that *we should find out the SL approach from the people involved rather than attempting to build an independent, generalised model to be applied everywhere*. For this, we need to examine what modifications have already been made in Australia, what information is still lacking, and how we might find more out in the present research.

3.4 Livelihoods approaches being used in Australia

Humour is an asset.

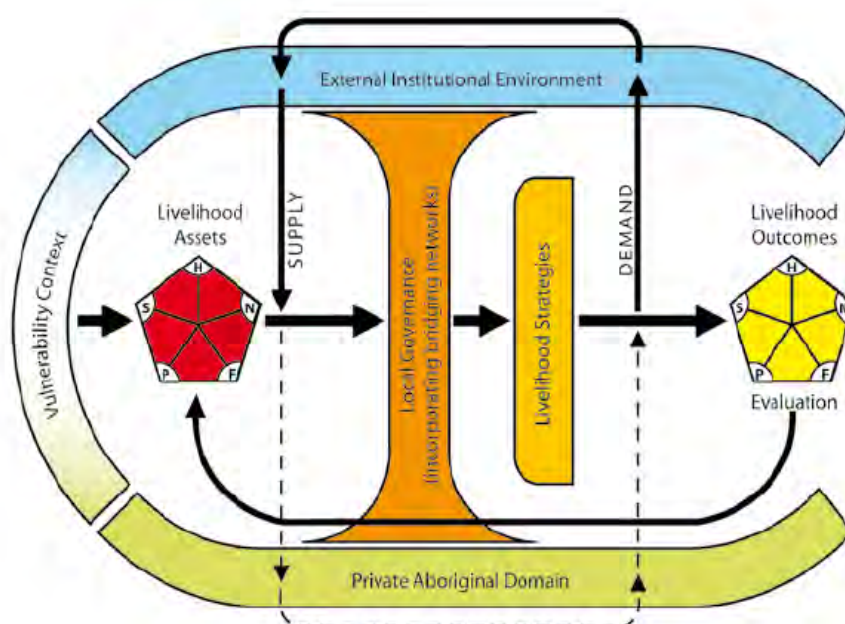
(Yuseph Deen, 2006; facilitator of the *Lumbu Indigenous Community Building Programme*)

In the Australian context, Altman (2001) emphasised the need for a hybrid approach to sustainable development that combines scientific assessment of biological sustainability, social-scientific assessment of commercial and social viability, and Indigenous expert

assessment of cultural practice to argue for the existence and validity of the 'hybrid economy' and to provide holistic and realistic assessments of sustainability and viability (p. 8). Unfortunately, most government institutions and organisations are operated and funded on a sector basis, so cross-sectoral development is difficult (Singh & Gilman, 2000). In fact, a "(cross-) generational timescale" would better match with the development of the confidence and trust often crucial to improvements in Indigenous health and well-being (Davies, 2006). Such a holistic approach is needed to help highlight the strong inter-relationship and interdependence of the many dimensions of livelihood systems. In societies such as those of Indigenous Australia, where knowledge is accumulated through shared cultural experiences, and management practices are integrated with moral and spiritual beliefs derived from particular ecological settings, this complex relationship can only be appreciated through a truly multi-dimensional approach to development (Gadgil, Berkes & Folke, 1993; Berkes & Folke, 1998).

The Centre for Appropriate Technology (CAT) in Alice Springs recently undertook an 18-month action research project at a remote Aboriginal settlement in Central Australia to help understand resource flows and long-term viability of remote desert settlements. The theoretical basis to the analysis was the SL framework; however, over the course of the project the framework was adapted to its Aboriginal setting (see **Figure 17**).

Figure 17: Sustainable livelihoods framework (CAT model). (Moran, Wright, Renehan *et al.*, 2007; pp. x-xi)



Researchers developed the framework based on the following observations and findings:

- *vulnerability is inseparably intertwined with government-backed funding and services;*
- *the external institutional environment is almost entirely supply-driven;*
- *culture underpins and transcends the entire framework and is therefore treated as a contextual element, embedded within a private Aboriginal domain;*
- *government inputs almost completely determine the local economy and their inflow is largely beyond local control; however,*
- *internal asset transformations are within the sphere of local power and capability.*

(Moran *et al.*, 2007)

Physical, financial, and human assets are often less available in Central Australian Aboriginal communities, so CAT focused on education and training for technical skills and maintenance, increasing and improving infrastructure availability and educating people to develop effective support skills, including governance training, to enhance income creation (Renehan, 2006). The CAT report pointed at a seeming over-reliance on social capital and mobility in remote settlements, (in terms of long-term sustainability of remote settlements), and suggested this perhaps is a result of uncertainty in the policy environment. While advocating the strengthening of the other capitals, CAT researchers realised the history of interventions in Aboriginal Affairs had tackled similar challenges before, mostly with limited success. So, although recognising the need for systemic reform, they stressed the essential hybrid and intercultural nature of these problems and the need for tenable long-term solutions.

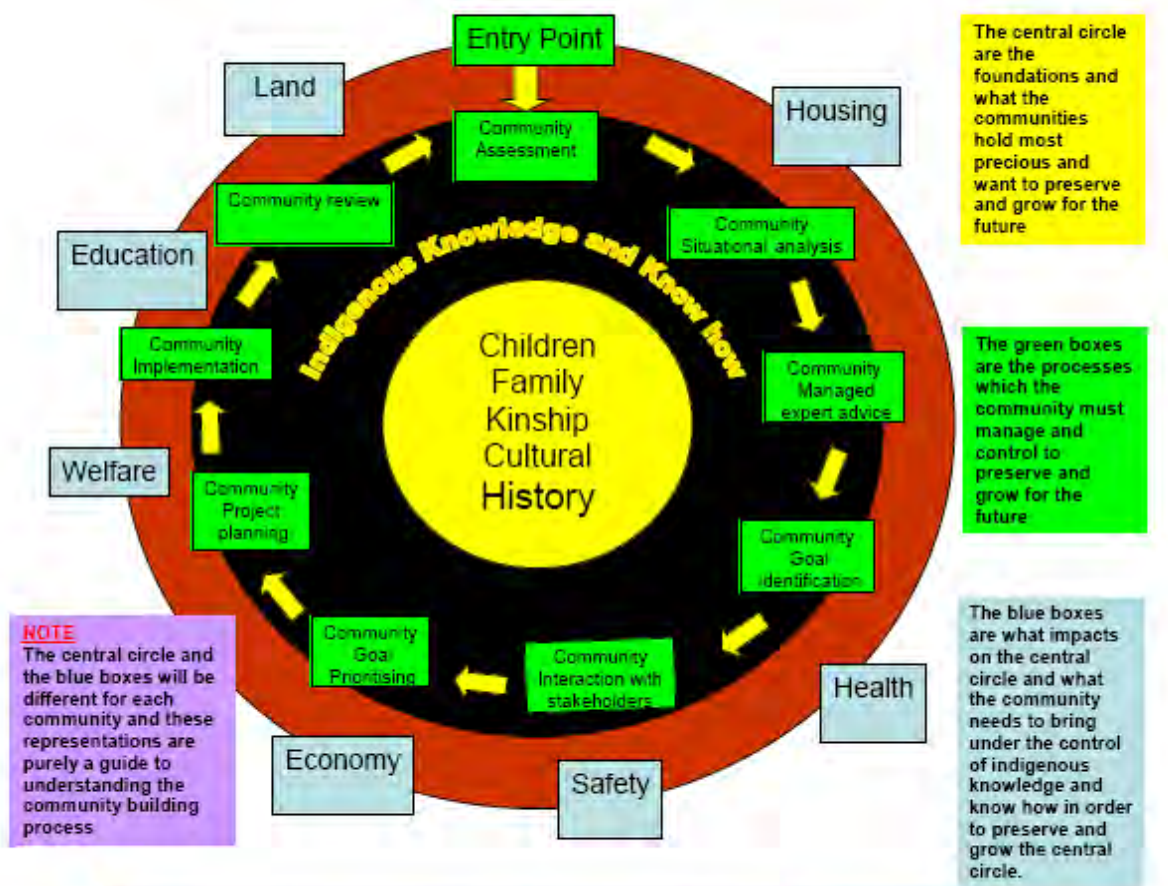
There was also a focus on decision-making at the local and regional level – i.e., local governance, which is largely based on relationships formed among residents, leaders, settlement staff, and outside employees (Moran *et al.*, 2007; p. xi). These relationships provide a bridge between the external institutional environment and the private Aboriginal domain (as depicted in the framework, **Figure 17**). This modified SL framework was offered as an intercultural model of practice, whereby a **'third space'** is recognised between Aboriginal and non-Aboriginal domains that allows bridging networks and new relationships to develop. CAT practitioners emphasised the didactic role of the framework aimed at a more balanced and integrated approach to practice, rather than a conceptual or theoretical model aimed at explaining or predicting. They wrote: **"The framework is a *participatory model of practice*, to draw both outsiders and locals onto an intercultural field on which knowledge sharing and innovation is possible"** (Moran *et al.*, 2007; p. vi; italics in original).

Similar intercultural frameworks are currently informing research and development in natural and cultural resource management, particularly in the tropical far north of the country (see Schiller & White, 2006). These frameworks highlight the importance of living on Country to the health and well-being of all concerned. James (2005) identified the relationship patterns sustaining cultural and natural landscapes by connecting people to their Country in the Western Desert region of central Australia. These relationships **are based on “kinship with Country” (p. 309), where the ecological, economic, cultural, and spiritual are all** interconnected and inherently part of the *Tjukurpa* (ontology/Law/Dreaming)¹² (*ibid.*). Such relationships are crucial to the on-going sustainable livelihoods and well-being of people and must lie at the base of any culturally appropriate enterprise development.

An increasing number of Indigenous-owned private enterprises and organisations have also been developing community capacity-building programs based on Indigenous knowledge and know-how (e.g., Cape York Institute for Policy and Research, 2007). The focus is on developing sustainable livelihoods and increasing individual and community well-being through participatory planning and interactive approaches that encourage empowerment at the local level. For example, Lumbu Indigenous Community Foundation (2005) focused on the need for communities to manage and control the processes that will help them **“preserve and grow what they hold most precious”** (see **Figure 18**). The US First Nations Development Institute provided the initial model for this approach, within which **“cultural capital is foundational... it’s paramount to community building as it defines who we are”** (Yuseph Deen, pers. comm., August 2006). Deen also stressed the core social-cultural inter-relationship in Indigenous Australia, based on trust and **“knowing who to go to”** (*ibid.*).

¹² The term ‘Dreaming’ is often used in the translation of a complex concept that encompasses the relationship between Aboriginal people, plants, animals and the physical features of the land, as well as people’s religion, law and moral systems. There is not a single word in English that conveys the complex meaning of this concept, (known as *Tjukurpa* in Pitjantjatjara language, *Altyerre* in Arrernte, and *Anengkerr* in Anmatyerr). It encompasses knowledge of how relationships came to be, what they mean and how they must be maintained in daily life and in ceremony – a body of Law and beliefs (<http://www.environment.gov.au/parks/uluru/culture-history/culture/tjukurpa.html>). Rose (1996; p. 27) cited Mussolini Harvey, a Yanyuwa man from the Gulf of Carpentaria: “The Dreamings are our ancestors, no matter if they are fish, birds, men, women, animals, wind or rain. It was these Dreamings that made our Law. All things in our country have Law, they have ceremony and song, and they have people who are related to them ...”

Figure 18: Lumbu Community Building Programme.
 (Source: Lumbu Indigenous Community Foundation, 2005)



Kado Muir, a Ngalia man of the Leonora region in Western Australia, addressed a national conference focused on the sustainability of Indigenous communities in Perth, July 2006. He explained how spirit, family, culture, and land form the basis of a thriving sustainable region, and how enterprise development is an activity/tool to utilise such resources. Muir emphasised the creative power of culture and proclaimed: **"Culture and know-how is our greatest intangible resource; family is our greatest human resource; land is our greatest physical resource. When these are aligned, we enjoy success"** (Muir, 2006). Muir also criticised **the negativity inherent in 'capacity building', preferring the term 'talent' to capacity**, as he said: **"Everyone has a talent! – we must support people to realise and develop their talent(s): physical talent, spiritual talent, artistic talent, community talent!"** (*ibid.*). Still, community-level capacity, in contrast to individual capacity/talent, is a relational phenomenon (Brian Cheers, 2006; pers. comm., Nov. 2007), reliant on social networks and **relational fields, (i.e., what some term 'social capital', as we saw earlier)**. In this regard, Muir (2006) advocated **the need to "act locally - engage globally"**, recognising the need to encourage local knowledge systems to link with wider global networks in order to increase opportunities and beneficial outcomes for all concerned.

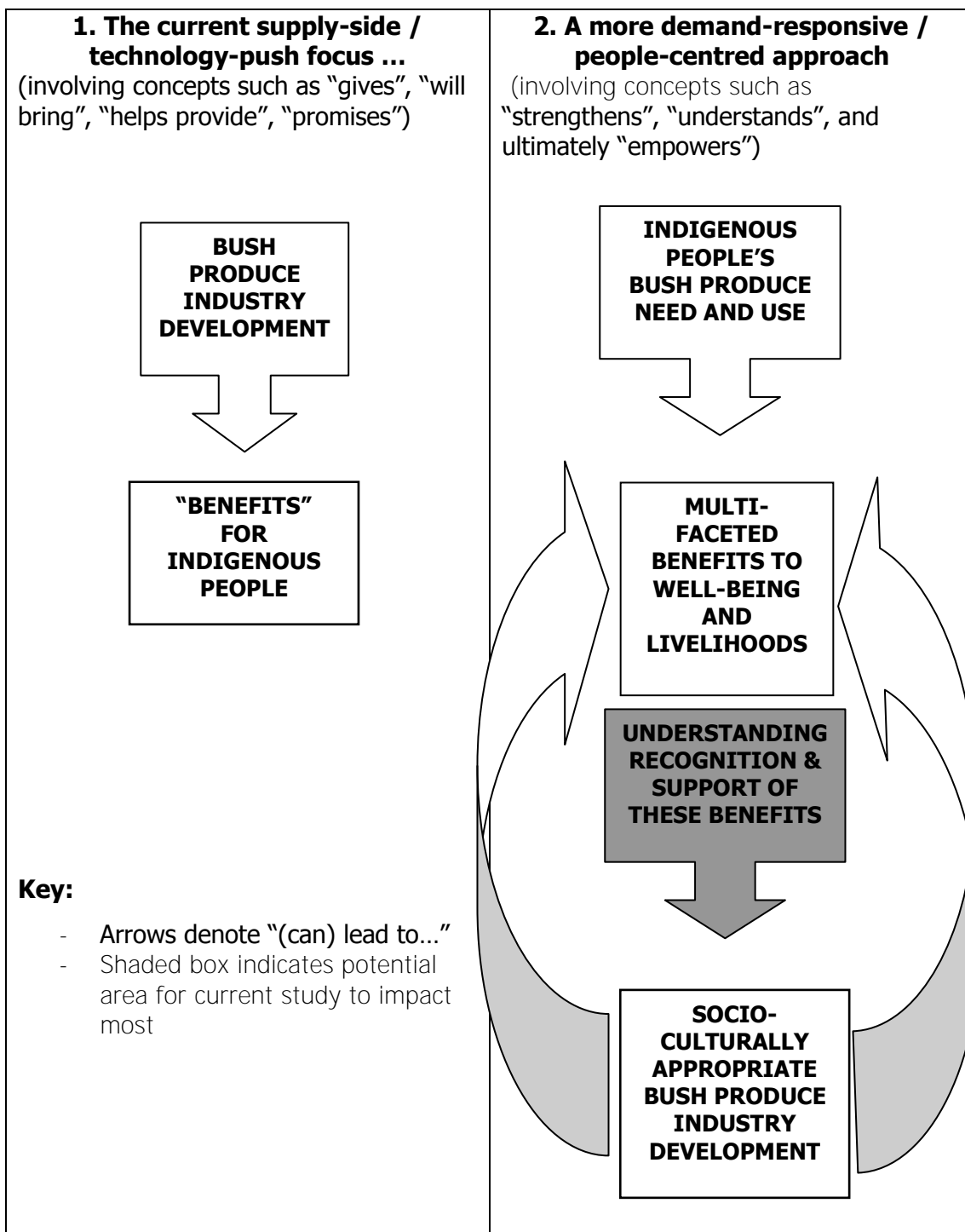
In keeping with this intercultural trend, the present PhD research used a modified SL framework (**Figure 7**) and participatory model of practice to develop the project in each case-study region and to engage the respective research participants in discussions aimed to more fully empathise with their own experiences and understandings. Although informed by the broader sustainable livelihoods approach and its principles, specific outputs in each case-study region were directed by community members, encouraging ownership of the engagement process. It was expected, in the light of this review, that each case-study community would produce its own version of SL approach.

3.5 The development of a sustainable livelihoods framework for Australian bush produce industries

To summarise, we have seen that a sustainable livelihoods framework can help create a better understanding of the many factors contributing to livelihood and well-being benefits and/or costs. It is useful in clarifying the many variables likely to be impacting on specific livelihoods, and offers insight into the way people make decisions according to such factors. For this reason, it can be used to strengthen contextual analysis of livelihoods.

There is, however, a need to modify the SL approach to fit an Indigenous Australian model of sustainable livelihoods and to develop a socio-culturally appropriate framework that incorporates the broader historical-political context - building Indigenous knowledge into the approach, acknowledging how Indigenous ways have been sustainable over many generations. Such a framework could not only help highlight the key aspects underlying **people's involvement in the bush produce industries, but also help identify possible constraints to current and future levels of industry participation.** In this way, a modified **'home-grown' livelihoods approach, adapted to suit specific local circumstances,** could help stimulate individual and community empowerment and well-being (**Figure 19**).

Figure 19: Simplified bush produce industry development models:
 1. Current view **vs.** 2. A more socio-culturally appropriate view.



The importance of culture and tradition to livelihoods is apparent in all of the Australian approaches to sustainable development described above. Culture and tradition encourage not only economic enhancement, but social and emotional well-being and empowerment. For most Aboriginal people of the Arid Zone, cultural meanings are still inherent in the gathering, preparation, and distribution of bush produce today and stories are still being passed on to the next generation.

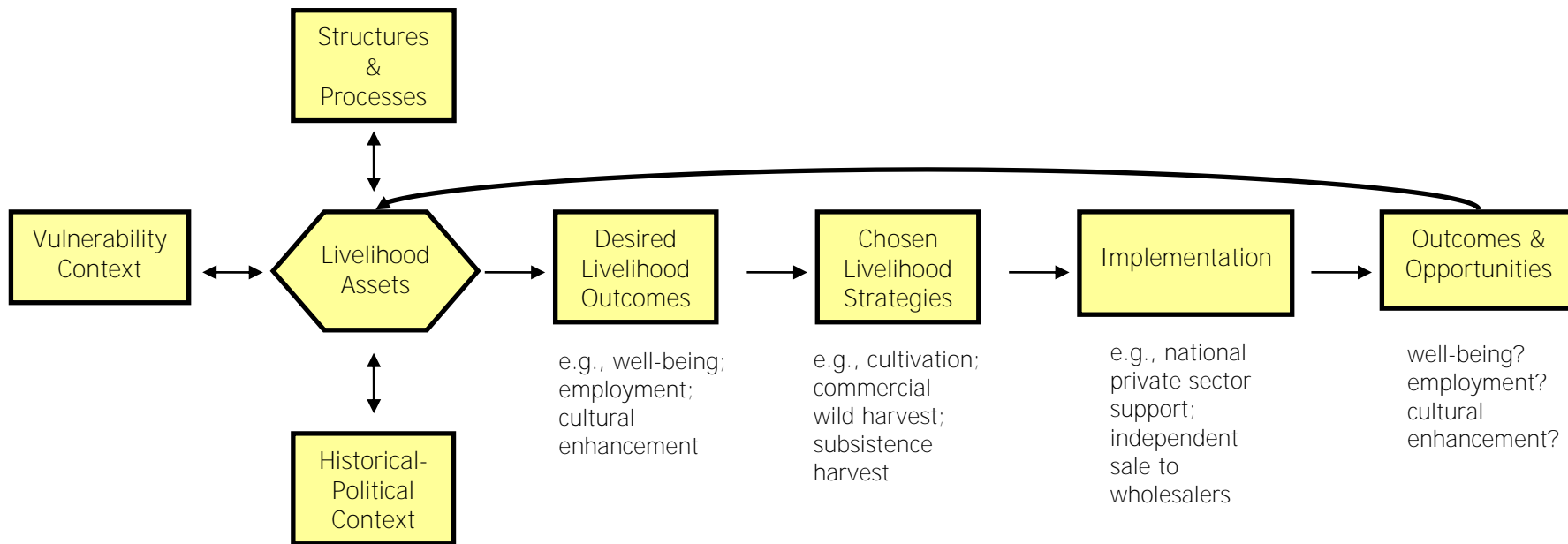
After reviewing the literature and combining this with discussions had during initial scoping trips to potential field sites, I initially modified the original DFID SL framework in a way in which I believed would better suit Aboriginal livelihoods in arid-zone Australia (see Draft livelihood assets and impacts framework **Figure 7**) and developed an accompanying bush produce livelihoods chain (**Figure 20**). I developed these frameworks to help inform the research process, expecting that they would be changed and individualised at each case-study site. They were aimed at helping identify the main circumstances influencing the livelihoods and well-being of Aboriginal peoples living in the Arid Zone, and were used to help guide and organise my initial research and questioning, and as a point of reference when reviewing approaches to bushfoods and bush produce industry development and involvement at the individual, household, and community level. It was recognised from the outset that these frameworks could ultimately need to be adjusted on the basis of the research findings. They were not seen as static models to be applied across arid Australia. Rather, they were viewed as part of an organic process of thought and development regarding what constitutes a sustainable livelihood for Aboriginal people living in remote desert Australia (ref. Reflexive Dairy entries, **Appendix 4**).

3.6 Summary

The SL approach continues to evolve and has not been sufficiently tested to date. The idea of livelihoods is enthusiastically being incorporated into the delivery of aid, however it remains to be seen whether it is working in practice – i.e., are the underlying relationships remaining unaltered through personal and/or institutional resistance despite the overall principles stressing an improved understanding of the complexity of, and connections between, livelihoods strategies and contexts (Toner, 2003). Ultimately it must be **remembered that “the sustainable livelihoods approach is not a blueprint for rural development, rather an analytical framework which guides the thinking behind development planning and intervention” (Cahn, 2002; p.4)**. The framework is only a tool and should be adapted to accommodate various local needs and circumstances (Neefjes, 2000).

The idea of sustainable livelihoods is undoubtedly important and particularly crucial as an improved understanding of the complexity of and the connections between livelihood strategies and contexts. In Australia, such an approach must give due recognition and respect for local knowledge systems, acknowledging and building on Indigenous understandings and approaches to sustainable development. In particular, the nature of any economic engagement needs to consider traditional values in addition to Western economic values.

Figure 20: Australian bush produce livelihoods chain.



Chapter 4: LITERATURE REVIEW OF THE PROS AND CONS OF INDIGENOUS INVOLVEMENT IN BUSH PRODUCE INDUSTRIES

4.1 Non-Timber Forest Product (NTFP) Commercialisation – livelihood and environmental outcomes of their harvest and trade

4.1.1 Introduction

The commercial extraction and trade of NTFPs has a long and contentious history, steeped as it is in sequential conquests, colonial expansionism and imperialist motivations, and is deeply characterised by uneven supply chain power relations. Indeed, plant transfers ... are a significant reason for the economic differentials that exist today between countries (Wynberg, 2006; p. 31)

The domestication of many plant species for food and other products has been carried out for thousands of years in almost every part of the world, often arising from extractive uses by Indigenous people (Homma, 1994). Broader commercial extraction and trade of local plants was often facilitated by early explorers, merchants, and military personnel who collected seeds and specimens in a search for plants with economic value or medicinal benefits (Aitken, 2006). The creation of colonial empires and the establishment of chartered trading companies facilitated much plant trade and introductions. In the 15th century, Spanish and Portuguese conquest of “The New World” involved export of cacao, cochineal and indigo (Wolf, 1982). [Prior to 1400, the Indigenous peoples of Central and South America had traded various plant and animal products amongst themselves, including honey and precious feathers, using cacao beans as one of the major mediums of monetary exchange (*ibid.*)]

In the early 1600s, the *Dutch East India Company* and the *English East India Company* were established to exploit the riches of the Far East – developing a profitable trade in food plants, spices, fibres, dyes, medicinal plants, narcotics, and other plants of economic value. Meanwhile, in North America, the English-based *Virginia Company* was formed on an area on Chesapeake Bay to promote settlement and trade with northern Europe, whilst Quebec became the trading base of the *Company of New France* and in 1624 the *Dutch West Indies Company* founded the settlement of New Amsterdam (modern-day New York). These early settlements of trade and commerce were followed by the *Hudson Bay Trading Company*, established in 1670 to control the fur trade throughout British-controlled North America. Fur traders and trappers thus forged early commercial relationships with many First Nations peoples (Aitken, 2006; Wolf, 1982).

Throughout the 1800s, worldwide trade in biological resources increased. In many countries, the Indigenous peoples were increasingly driven from their traditional lands as the cultivation of introduced crops increased and trading company gardens were established to grow food for the passengers of ships en route to the East Indies and the Orient. During this time, British exploration of New Holland yielded many plants of ornamental potential, but **“botanists were gloomy in their assessment of the economic potential of the Australian flora”** (Aitken, 2006; p. 155):

A perceived lack of edible plants was commonly cited, yet this belied the rich array of 'bush tucker' plants that had sustained Australia's Aboriginals for thousands of years. So it was that Australia's earliest colonial gardens focused on sustenance, importing European agricultural and horticultural traditions along with familiar fruits and vegetables.

Come the 20th century, as Wynberg (2006) reported, interest in the collection of wild species generally waned, with a corresponding focus on production maximisation and efficiency. It **was not until the 1990s that interest in wild species “once again took centre stage in the quest for new types of foods, medicines, ornamental plants, and other useful products”** (*ibid.*; p. 34). Still, many plant species were collected from South America, particularly the Amazonia region, during the mid century, with an increasing interest in expanding the sources of natural medicine (Newton, 2008). At this time, ethnobotanists collected thousands of plant specimens for laboratories to test their healing properties.

Today, approximately 40% of Western medicines are based on plants or plant extracts (Newton, 2008), and the biodiversity product global economic worth is estimated to be between US\$500 billion and US\$800 billion (ten Kate & Laird, 1999). Still, as Wynberg (2006) stressed, power, profit and economic opportunities based on biological resources are **now often under the control of private companies, “which usually vary greatly in their environmental and social ethics”** (p. 34). **By way of example, it has been estimated that “almost half of the world’s species of plants, animals, and micro-organisms will be destroyed or severely threatened over the next quarter-century due to rainforest deforestation”** (Newton, 2008; p. 157).

4.1.2 What are the objectives of promoting contemporary NTFP commercialisation?

Belcher and Schreckenberg (2003) identified three major kinds of objectives behind contemporary NTFP commercialisation:

- those promoted by conservationists
- those at the national level
- those that are livelihood-based

Interest in NTFPs has grown over the last 15-20 years with the increasing awareness of the destruction of (tropical) forests (Falconer, 1996). The international conservation movement, rather than foresters or development specialists, initially drove the concern for NTFPs – seeing them as a possible means of slowing forest destruction by increasing the overall worth of the forest, and offering a more sustainable harvest (Plotkin & Famolare, 1992). At the national level, there has been increasing interest in the possibility of NTFP commercialisation acting as “an engine for rural growth, contributing to improved national incomes” (Belcher and Schreckenberg, 2003; p. 2). Belcher and Schreckenberg (2003) cite examples from Costa Rica, Mexico, Indonesia, and Namibia where national-level support has been aimed at the development of new natural product industries.

In addition, many projects and studies have emphasised the livelihoods benefits to be gained from involvement in the domestication and commercialisation of indigenous trees and their products (Leakey, Schreckenberg, & Tchoundjeu, 2003; Mitchell & Hanstad, 2004; Kusters, Achdiawan, Belcher *et al.*, 2006; Degrande, Schreckenberg, Mbosso *et al.*, 2006). Many NTFP projects focus initiatives on the reduction of poverty and the enhancement of food security for poor small-holder farmers, often tying project aims and achievements to **the broader United Nations’ Millenium Development Goals** (Leakey & Simons, 1998; Garrity, 2004) (for goals ref. UN, 2005). These approaches tend to look at the poverty cycle as leading to ecosystem degradation and biodiversity loss, involving unsustainable cropping methods. The potential of NTFPs to address problems of underdevelopment and environmental degradation has received increasing attention over the last 20 years in particular – in parallel with the development of international access, use, and benefit sharing agreements (Wynberg, 2006; p. 2).

In Australia, the current push for bush produce commercialisation is multi-dimensional, being driven by such things as:

- a consumer base searching for alternatives to highly processed foods in order to defer the onset of dietary-related disease (Brown & Haworth, 1997)
- entrepreneurs and restauranteurs promoting the uniquely Australian flavours of healthy, organic, environmentally-friendly fare (Bruneteau, 1996; Cherikoff, 2000)
- an Australian Government focus on enhancing economic and social development of Aboriginal and Torres Strait Islander people, as a reaction to needs identified in the findings of the Royal Commission Into Aboriginal Deaths in Custody (Johnston, 1991)¹ (Desmond & Rowland, 2000)

¹ The Royal Commission Into Aboriginal Deaths In Custody (RCIADIC) was established in response to growing public concern that deaths in custody of Aboriginal people were too common and poorly explained. While the RCIADIC was focused primarily on the incarceration rates of Aboriginal and Torres Strait Islander peoples, the

- identified health benefits, including anti-oxidant capacity (Konczak *et al.*, 2009)
- a search for ways to develop “a more sustainable agriculture which is sensitive to the soils, water, biodiversity and climatic cycles of the continent” (CSIRO scientist Dr Maarten Ryder, cited in Anon, 2001b) (Allan Cooney, pers. comm., April 2006; RIRDC, 2001, 2008)
- national research organisations promoting a profitable new rural agricultural industry (RIRDC, 2001, 2008)

Additionally, Allan Cooney, (former) General Manager of Centrefarm Aboriginal Horticulture Ltd., believes the commercialisation process is being driven by theories relating to the average timeframes of base development needed for new products to be successful in the market. “According to the development S curve², the Australian Native Foods industry is currently on the cusp of a commercialisation boom” (pers. comm., April 2006).

4.1.3 What is involved in NTFP commercialisation?

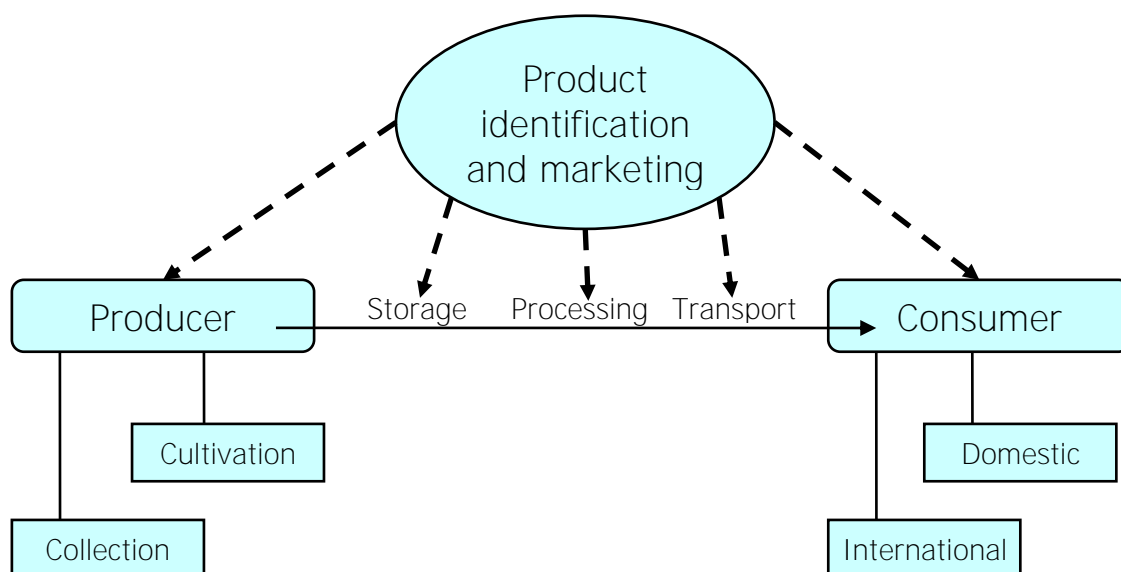
Commodity chains are social networks, held together through negotiations, persuasion, and coercion (Busch, 1989; p. 14).

A “value chain” (Blowfield, 2001) or “production to consumption system (PCS)” (Belcher, 1998) describes the range of activities required to bring a product from the producer to the consumer. Several sub-sets of activities – including collection, production, processing, storage, transport, marketing, and sale (see **Figure 21**) – all combine to affect the production to consumption process (Belcher & Schreckenber, 2003). Chain length and complexity varies, with most chains more closely resembling networks in which many of the activities are repeated several times by different people at different locations. The recent globalisation trend has often made value chains more complex and difficult to manage (*ibid.*). A PCS includes the technologies used to grow and process materials, as well as the social, institutional, and economic environments in which these processes operate (Belcher, 1998).

final report made 339 recommendations, many of which related to the social, economic, and political experiences of these peoples. The Royal Commission determined a link between the over-representation of Aboriginal people in custody and the breakdown of cultural structures that was caused by the process of colonization (ref. <http://www.austlii.edu.au/au/other/IndigLRes/rciadic>).

² Everett Rogers in his 1962 book, *Diffusion of Innovations*, theorised that innovations would spread through society in an S curve, referring to early adopters selecting the innovation first, followed by the majority, until an innovation becomes common. Relating this to the adoption of new bush products, Allan Cooney explained that it usually takes 15-20 years to begin building knowledge and acceptance of a new commercial product, during which there is only about 1% return; the next stage is rapid commercialisation, which can also last for 15-20 years (pers. comm., April 2006). This is the current stage of native bushfood product development in Australia. (ref. Rogers, 2003).

Figure 21: A sample production-to-consumption system. (Belcher & Schreckenberg, 2003)



In NTFP commercialisation, the producer either cultivates and/or wild-harvests the raw produce, and then either stores, processes and/or transports the produce (depending on the product). Some level of primary processing may take place close to the point of origin (e.g., when perishability is a concern, or when Traditional Knowledge is used to clean and prepare **produce before selling it on to wholesalers**). **Storage and transport are key to 'bulking'** produce (i.e., to aid the collection of sufficient volumes of the raw or partially processed material to make any subsequent processing step economical) (Belcher & Schreckenberg, 2003). Wholesale, product distribution, and retail sale, whether local, domestic, and/or international depend on sufficient product quantity and quality to ensure sustainable commercial trade.

Mayers (2001) emphasised **the role of the 'Four Rs'**, essential for ensuring a sustainable and equitable chain: *rights, responsibilities, returns, and relationships* among the various stakeholders. Benefit flows are affected by the power balance between each of these factors, providing incentives or disincentives to achieving sustainable use and trade of NTFPs. According to Mayers, it is the quality and strength of the relationships between stakeholders that ultimately influence the rights, responsibilities, and benefits/returns experienced by individuals, groups, and organisations.

4.1.4 Who is involved in NTFP commercialisation?

Most production-to-consumption systems rely on a network of different types of organisations to assist in getting products from the forest, field or desert to the consumer - including individuals, loose associations of people, and shareholder companies (Belcher &

Schreckenberg, 2003). Co-operatives are often formed at the producer level, helping people meet minimum order requirements, share costs and benefits of collective investments in storage, processing and/or transportation, as well as helping improve bargaining power through collective negotiation. Processing and trading are often undertaken by individual entrepreneurs, although joint ventures have allowed for higher investments of capital and skills often needed at the international level. The contribution of the many intermediaries typically involved in production-to-consumption systems is in helping provide important links between producers, processors, and consumers through supplying knowledge, contacts and/or information, as well as often shouldering the risk associated with enterprise development (Belcher & Schreckenberg, 2003).

It is particularly important to remember that there are various reasons why people become involved in commercial harvests and/or grow commercial crops. In many communities, a growing need for cash as the primary medium of exchange has resulted in more interest in forest species with commercial potential (Ames, 1998). For some, selling forest products may be an important livelihood strategy to help overcome barriers that otherwise restrict cash-earning opportunities, including geographical isolation, ethnicity, and gender roles (Iqbal, 1995; Nair, 1995). In many cases, women are the main producers and beneficiaries of this trade - particularly of wild harvested produce – with social networks and mutual support structures often built around ties of kinship (Greig, 2006; Wynberg, 2006; Schreckenberg, Degrande, Mbosso *et al.*, 2002).

Marshall, Newton and Schreckenberg (2003) surveyed stakeholders in Central and South America at different levels of the value chain to identify factors influencing success in NTFP production. They **found that criteria of 'success' was not solely defined in economic terms.** Rather, reference was also made to improvements in resource conservation, social justice, strengthening of community organisation, local capacity building, and the strengthening of local culture (p. 132). This study is one of few which attempt to better understand commercial NTFP industry involvement from the point of view of local producers.

4.2 Australian Aboriginal peoples' involvement in arid-zone bush produce industries

4.2.1 Aboriginal customary harvest – historical and contemporary contexts

In Central Australia Aboriginal peoples have been utilising native plant species as a food and medicinal source for thousands of years. It is estimated that 50-80% of a traditional Aboriginal diet may have been composed of plant products (Latz, 1995). Today, over 140

plant species are still utilised as food by Aboriginal peoples in this region – including food types such as fruits, seeds, tubers, honey, grubs, gums, mushrooms and lerps (*ibid.*, p. 44).

Traditionally, women provided the subsistence diet of plant foods, honey, insects, small marsupials and reptiles, while men primarily hunted for large game (mammals, marsupials, birds, game, and fish), with both often collecting fruits and plant food in an opportunistic manner along the way (NHMRC, 2000; Hiatt, 1978). Food collection and preparation were energy-intensive activities, although most traditional foods were low in energy density and high in nutrients such as protein, fibre, complex carbohydrates of low glycaemic index, and low in sugars (NHMRC, 2000). Sharing of food had a social, as well as a physiological function with foods prepared, proportioned, and distributed according to traditional law, strengthening social relationships and meeting kin obligations (*ibid.*).

Bushfood represented a calendar and timepiece, signalling time to move on, to celebrate, to socialise, to reproduce, and to prepare for hardship or trade (Maguire, 2003). Food production was often increased by the use of fire and landscapes were preserved by various strategies, including the habit of gathering food to fulfil immediate requirements, rather than to store for later use. Religious taboos prohibited hunting and food gathering in particular sacred areas, compelling people to conserve certain resources and live more harmoniously within their environment (Latz & Griffin, 1978). Food was closely interwoven with a rich spiritual life (Sackett, 1980) and often came with a story which was also a valuable lesson in human behaviour, imparting traditional Law. Each food was created by ancestral beings and certain people had special links with some foods, which became their totems (Keen, 2004).

Following European settlement, Aboriginal people were increasingly denied access to their lands and forced to depend on European food. Rations of flour, sugar, tea, and meat (often tinned or salted) were often distributed by missionaries, pastoralists, and miners. During this period, bushfoods were often eaten at times when rations were scarce (NHMRC, 2000). Change in diet and traditional food distribution patterns increased from the 1930s, when trading posts were established in remote areas (Kyle-Little, 1957). Aboriginal people were often centralised at cattle stations, government settlements, and/or missions (Long, 1970) and communal dining rooms were introduced to such places throughout Central Australia from the late 1950s/early 1960s. Reasons for such dining rooms were based on colonial constructs of social change and assimilationist ideals:

Promoting changes in the aborigines' diet and eating habits is a very important factor in achieving their assimilation. A variation in diet is expected to bring about major improvements in health, and the adoption of European eating habits should have the effect of making aboriginal people more acceptable in the community generally. ... On Government Settlements, communal feeding is being introduced to ensure that all residents on a settlement will be adequately fed, as a means of

inculcating European tastes in food, as a means of training people in regular eating habits involving the use of European eating utensils, and finally as a means of training cooks some of whom will find employment on pastoral properties, in stock camps and elsewhere.

(Northern Territory Administration, Annual Report 1958/59; p. 10)

NHMRC (2000) reported that in this way, Aboriginal people were increasingly deprived of responsibility for food acquisition and preparation; however, as Rowse and Graham (n.d.) highlighted, residents still preferred to eat in their own family groups, around a fire. Agriculture/horticulture was also encouraged in such settlements, with citrus trees and European fruit and vegetables grown, alongside the raising of European livestock for consumption – including cattle, goats, and chickens (NTA Annual Report 1958/59).

The early 1970s saw land rights legislation and a policy of self-determination introduced (Deane, 1997). Few Aboriginal people were employed on award wages (Peterson, 1979a), and social security entitlements were extended and increased. During this time, Aboriginal councils and representative bodies were also established, and many small family groups began to move back to traditional lands in remote areas – (often termed **the 'outstation' or 'homelands movement'**) (Coombs, 1974). The initial thought was that nutrition would improve through such movement – with bush produce again supplementing store-bought foods, and people establishing fruit and vegetable gardens. However, the long-term effects reviewed by the NHMRC (2000) pointed at a reduction in the availability of traditional foods due to factors such as:

- *the effect of environmental degradation caused by stock and feral animals;*
- *the introduction of exotic plant species;*
- *the increasing incidence of hot destructive bush fires due to poor land management practices;*
- *the restricted access to some areas of land;*
- *depletion of resources and population pressure around permanent settlements;*
- *high costs associated with the acquisition and maintenance of equipment, firearms, vehicles, and fuel;*
- *changing demographic patterns; and*
- *cultural loss from generation to generation (pp. 39-40).*

In 2000, the NHMRC reported that accompanying the transition from a traditional hunter-gather lifestyle to a more settled westernised existence, there had been a change from a nutrient-dense diet to an energy-dense diet, high in fat and refined sugars, and that the social function of traditional foods was increasingly seen to be more important than the fact that it tasted good and stopped hunger (p. 40). While there are areas where bushfoods still play a major role in diet, and subsequent health benefits are attributed to the persistence of the hunting and gathering of such foods (Bolton, 2006; O'Dea, 1984), the inclusion of bushfoods in the contemporary diet (as well as the acquisition of bush resources for medical and art/craft purposes) is often highly dependent on the availability of transport (NHMRC,

2000). Research in Central Australia has shown that subsistence and internal trade uses of wild-harvested bush foods are often equally or more significant to Aboriginal people than any external commercial sale (Morse, 2005; see also: Latz & Griffin, 1978; Cane, 2002; O'Connell, Latz, & Barnett, 1983).

4.2.2 An example of bush produce industry development: The Australian Native Foods Industry

It's hard to create industry, not hard to grow things.

(Peter Cowham, pers. comm., Nov. 2006)

Botanist Sir Joseph Banks was the first European to try Australian bushfoods; explorers John King and Ludwig Leichhardt observed Aboriginal plant use and often lived off native foods; meanwhile, the Duke of Edinburgh, Prince Alfred, was served kangaroo-tail soup and an emu-egg omelette on his visit to Australia in 1867.

Still, many early explorers and settlers often failed to realise the full potential of bushfoods – seeing the world through Eurocentric eyes, favouring known species, imposing their supposedly superior land-management practices on the country and dismissing the native vegetation of any economic worth. Indeed, Lieutenant James Cook RN wrote the following observations in his journal:

*The Land naturally produces hardly anything fit for Man to eat, and the Natives know nothing of Cultivation. ... We are to Consider that we see this Country in the pure state of Nature, the Industry of man has had nothing to do with any part of it and yet **we find all such things as nature hath bestow'd upon it in a flourishing state. In this Extensive Country it can never be doubted but what most sorts of Grain, Fruit, Roots etc. of every kind would flourish here were they once brought hither, planted and Cultivated by the hands of the Industry** (Cook, Aug. 23rd 1770).*

Over the years, the introduction of wildlife protection laws, coupled with the development of **Australia's agricultural land, food processing industries, and global export markets, resulted** in many Australians seemingly losing their taste for bushfoods (Weldon, 2008).

Despite such inauspicious beginnings, an economic value has more recently attached itself to bush tucker, particularly over the last 20-30 years, with a growing appreciation of its unique flavours and uses. The modern commercial industry commenced in the early to mid 1980s, with people like Vic Cherikoff (entrepreneur and chef) and restaurateurs Jean-Paul Bruneteau and Jennifer Dowling introducing native foods into their menus and promoting them as uniquely Australian, healthy, organic, and environmentally-friendly fare (RIRDC, 2008). Bruneteau (1996) **described the native ingredient as "the catalyst for the continuing development of an Australian cuisine"** (p. 12).

During the 1990s, organisations such as Greening Australia, the Rural Industries Research and Development Corporation (RIRDC), the Aboriginal and Torres Strait Islander Commission (ATSIC) and the Commonwealth Science and Industry Research Organisation (CSIRO) all helped to generate ideas and approaches, with the term 'native food' being chosen in the late 1990s to reflect the new cuisine and uses being made of Australian plants that "built on and complemented traditional uses" (RIRDC, 2008; p. 5) (see also Cherikoff, 2000). Major uses of raw produce include: as additives for flavouring; as garnishes or chutneys; as pickles and mustards; for use in jams; or as fresh fruit and vegetable produce (see **Figure 22**). In addition, bush meats such as kangaroo and emu offer healthier lean meat alternatives to lamb and beef.

Figure 22: Some value-added Australian native food products.



Today, the Australian Native Foods Industry is an emerging niche industry, worth an estimated \$30 million a year (Saunders, 2010), including farm-gate value and retail sales³. RIRDC (2008) estimated that there are approximately 500 active non-Aboriginal participants in the industry, sourcing varying produce from the differing climatic zones across Australia. They also reported that while bush harvest is still the dominant means of production – with wild harvested produce supplying almost all of the bush foods from the Arid Zone and the Tropical North, and involving, an estimated 300-500 Aboriginal people, predominantly women, in commercial harvests over the last five years in Central Australia alone (Walsh *et al.*, 2006a,b) - cultivation is expanding.

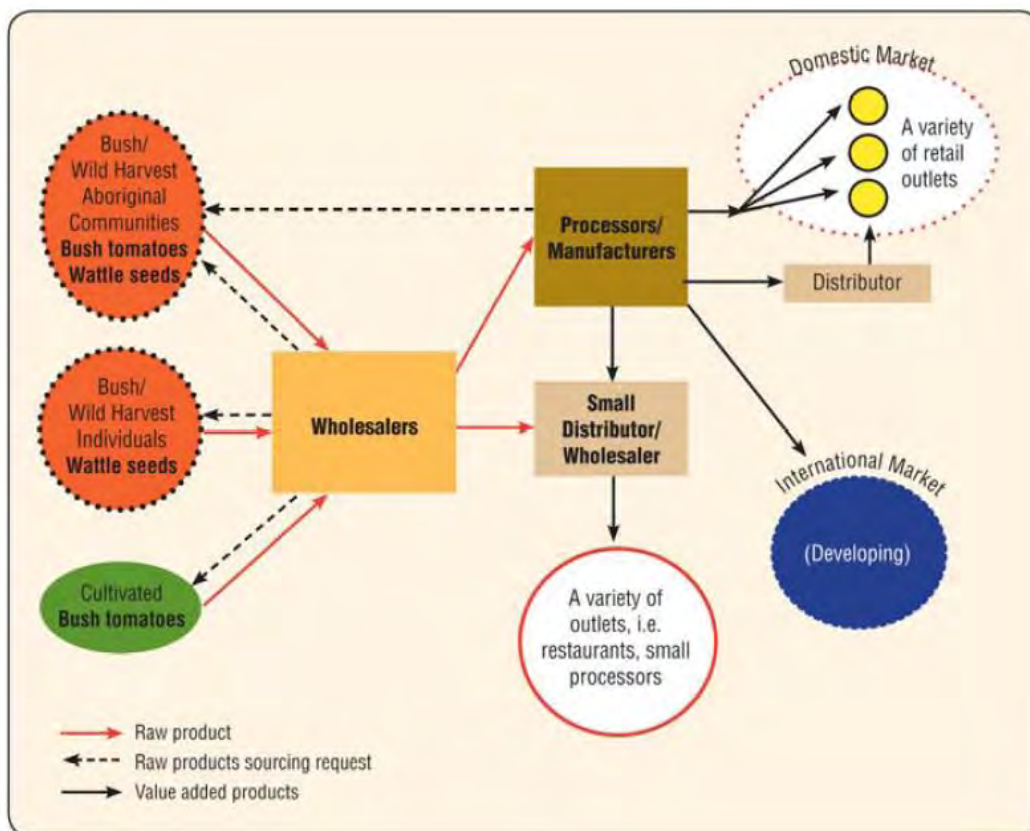
As Armstrong Muller (2007) reported, the industry is still in a 'product push' phase, with consumer education, product development and promotion being carried out alongside the growth of raw produce. For many involved in the industry, native foods comprise only a part of their overall business activity, as average returns across the industry are reputedly low (RIRDC, 2008). That said, market presence is expanding, both domestically and internationally, and a number of partnerships have evolved between collectors and suppliers of raw product, and the various wholesalers and procurement agencies. These relationships are at the base of bushfood supply chains (see **Figure 23** for a generic example based on bush tomato and wattleseed supply).

A research and development plan for the Native Foods Industry was developed for 2001-2006, by the RIRDC on behalf of the Commonwealth Government. Within this plan it was recognised that the gross value of the industry "includes subsistence use, wild harvest, farm production, a wide range of value adding activities and a variety of end-users including **restaurants, retailers and other hospitality providers**" (RIRDC, 2001; p. 3). The plan mentioned a "very significant number of Aboriginal participants" (p. 3), and advocated all research give due recognition and respect to Aboriginal and Torres Strait Islander people and their knowledge by fostering and promoting opportunities for communities or individual families to become involved in the commercialisation of native species (p. 9). However, despite profitable, agriculturally and ecologically sustainable production being identified as industry priorities, along with market strengthening, there was no real mention of the importance of maintaining Indigenous socio-cultural integrity. Rather, sustainability focused on the ecological impact of wild harvest – i.e., the focus remained on the resources, rather than the people traditionally and commercially utilising them. So, despite seeming to support **Indigenous people's involvement in the industry, the** focus was on the creation of new

³ The largest bushfood industry is the Macadamia industry, which is a mature horticultural industry worth AUS\$85 million p.a. at the farm gate and \$120 million p.a. value-added (Ryder & Latham, 2005). The cultivation of this Australian plant was adopted from the USA. Researchers are now keen to develop similar industries based on other native Australian plants – however, ideally keeping the research and development on-shore.

wealth and employment opportunities. There was no real consideration of broader socio-cultural effects of industry development at this stage.

Figure 23: Generic supply chain for bush tomato/desert raisin and wattleseed. (Bryceson, 2008; p. 10)



Disappointingly, a more recent report entitled “Native Foods R&D Priorities and Strategies 2007-2012” (RIRDC, 2008) failed to improve on “*recognition of Indigenous culture, food practices and value of involvement in the industry*” (p. iv). Despite almost four million dollars being spent on research and development in the bushfoods industry over the past decade, RIRDC admitted to disappointing penetration and limited impact of such research (RIRDC, 2008). They concluded that engaging industry members in the R&D activities is essential to ensure more applicable outcomes and promote research adoption. However, despite this, the RIRDC made no mention of the way they intended to engage with Indigenous people involved in the industry. Their research priorities were *totally void of any of the socio-cultural concerns* discussed in the previous chapter, with a focus instead purely on economic and environmental outcomes. Although ‘good health’ was touted as a national research priority, the promotion of native foods for ‘health’ was rather narrowly defined through focus on anti-oxidants and the physical benefits of eating such foods. The broader concept of ‘well-being’ would be better suited to encompass the socio-cultural, emotional, and spiritual health that is aligned with bushfoods, particularly for Indigenous peoples - [as had been previously recognised in studies such as Desmond and Rowland (2000) and a 2007 RIRDC report entitled “Aboriginal Communities and Mixed Agricultural Businesses”

(Alexandra & Stanley) where it was recommended a more holistic assessment framework, based on broader indices of welfare, be implemented to track the impacts of projects/ assistance on community well-being over a realistic timeframe].

Meanwhile, Altman and Whitehead (2003; p. 4) reported that **Aboriginal people are “heavily engaged in commercial activity based on use of native plants harvested from the wild”**. They pointed to the sustainable commercial harvest of wild plant resources for the arts and crafts industry, “(which) engages thousands of Aboriginal people in the Northern Territory in meaningful employment and contributes substantially to regional economies through both direct sales and indirect contribution to the tourism industry (*ibid.*, p. 4). Additionally, commercial bush harvests for seeds and foods have been occurring throughout the Central Australian region since the 1970s (Rod Horner, pers. comm., May 2008), requiring the application of a broad range of cultural skills and regular activity on Country. Altman and Whitehead (2003) pointed at the need to recognise the value of Indigenous Knowledge (IK) and practice in the wider society, to help build the status and esteem of skilled cultural practitioners within communities, to help ensure sustainable resource use for both customary and commercial purposes.

Presumably RIRDC will rely on the newly formed ANFIL rep body to facilitate Indigenous **people’s involvement. Australian Native Foods Industry Ltd. (ANFIL) was incorporated in December 2006** as the national peak industry body. Its aim was to act as a body representative, to provide a channel for communication and liaison between individuals, communities, and organisations involved in the industry (including Indigenous Australians). It is, however, only just beginning to establish how to best achieve this, with most membership and representation to date based on an industry push for sustainable economic return. There is also currently no Aboriginal representation on the organisational board (as of Nov. 2010) and ANFIL is yet to show if or how it will champion socio-cultural elements of industry development. Indeed, in a SWOT analysis for the industry conducted by ANFIL in mid 2007, the only formal mention made of engaging with Indigenous communities was in regard to exploring opportunities and functional food properties. At the same time, access to **native title lands for cultivation was seen as a “threat” to industry development. Surely this could only be regarded as a threat if Indigenous people are not actively involved in industry development** (ANFIL Industry workshop, 13th June, 2007 - cited in RIRDC 2008; p. 10).

In 2007, Armstrong Muller **completed a survey of Aboriginal people’s involvement in the South Australian Native Foods Industry** (ref. map in **Figure 24** below). A number of state and federal government agencies commissioned the report, which focussed on “the *economic viability* of Native Foods **more so than social, cultural or environmental benefits”**

(p. 1; my emphasis). While their study found that opportunities do exist for Indigenous enterprises to achieve successful commercial outcomes, they pointed to a number of key components needed to realise such opportunities, including: a long-term and ongoing commitment by all stakeholders; recognition that a successful commercial outcome includes breaking even on operating expenses with little contribution to capital costs; acceptance that the associated risks are high in all aspects of the project; a structured approach to project assessment, plot establishment, and ongoing operations; complementary (mainstream horticultural) activities to provide cash in the short term while Native Food crops and markets are established; and, the producers valuing and supporting the role of distributors and marketers in the supply chain (p. 2).

This survey concentrated exclusively on horticultural production of bush foods, although customary use and commercial wild harvesting of bush foods does occur in South Australia, albeit on a smaller scale than in the Northern Territory. Quandongs (*Santalum acuminatum*), and acacia seeds for example, are seasonally collected by Aboriginal and non-Aboriginal people in arid and semi-arid regions of the state, with raw produce either eaten or sold for use in commercial products and/or revegetation (Jim Talladira, Lyle Dudley, pers. comms., Nov. 2008). Still, Armstrong Muller (2007) pointed to the major native food businesses seeking secure consistent long-term supply arrangements with growers – recognising that as products gain market acceptance, demand may start to outstrip supply, (as indeed occurred, during the course of the PhD, when the demand for bush tomatoes to process into chutneys and sauces aimed for shelves in Coles supermarkets could not be met due to lack of wild-harvested supply from drought-ridden Central Australia). In addition to sustainable supply concerns, Armstrong Muller (2007) identified an interest in the major native food retail businesses (namely *Outback Pride* and *Outback Spirit*) to involve Indigenous people “at the growing end of the supply chain, to provide returns for Indigenous communities as well as providing marketing leverage” (p. 3). I return to further discussion of the Armstrong Muller report (2007) in Chapter 6 of this PhD thesis.

MAIN SUPPLY CHAIN MODELS

There are currently several ways in which people are involved in the bushfoods industry. What follows is a presentation of some of the supply chain models (based on Bryceson, 2008) and an introduction to the major commercial players involved in the arid-zone bushfoods commercialisation process. Most produce collected in this region to date has tended to feed into one of two large-scale supply chains, namely the *Outback Pride* and *Outback Spirit* models. In addition, there remain a small number of independent entrepreneurs who are developing their own enterprises, sourcing their own raw materials

and value-adding produce. These are discussed under the *Central Australian Wholesaler* model.

The 'Outback Pride' model

Mike and Gayle Quarmby, the owners of Reedy Creek Nursery at Kingston SE, a wholesale propagating nursery of native plants, have developed a community development-style approach to bushfood production through the *Outback Pride* project. This project is based on a network of production sites located in several Aboriginal communities throughout South Australia (see **Figure 24**).

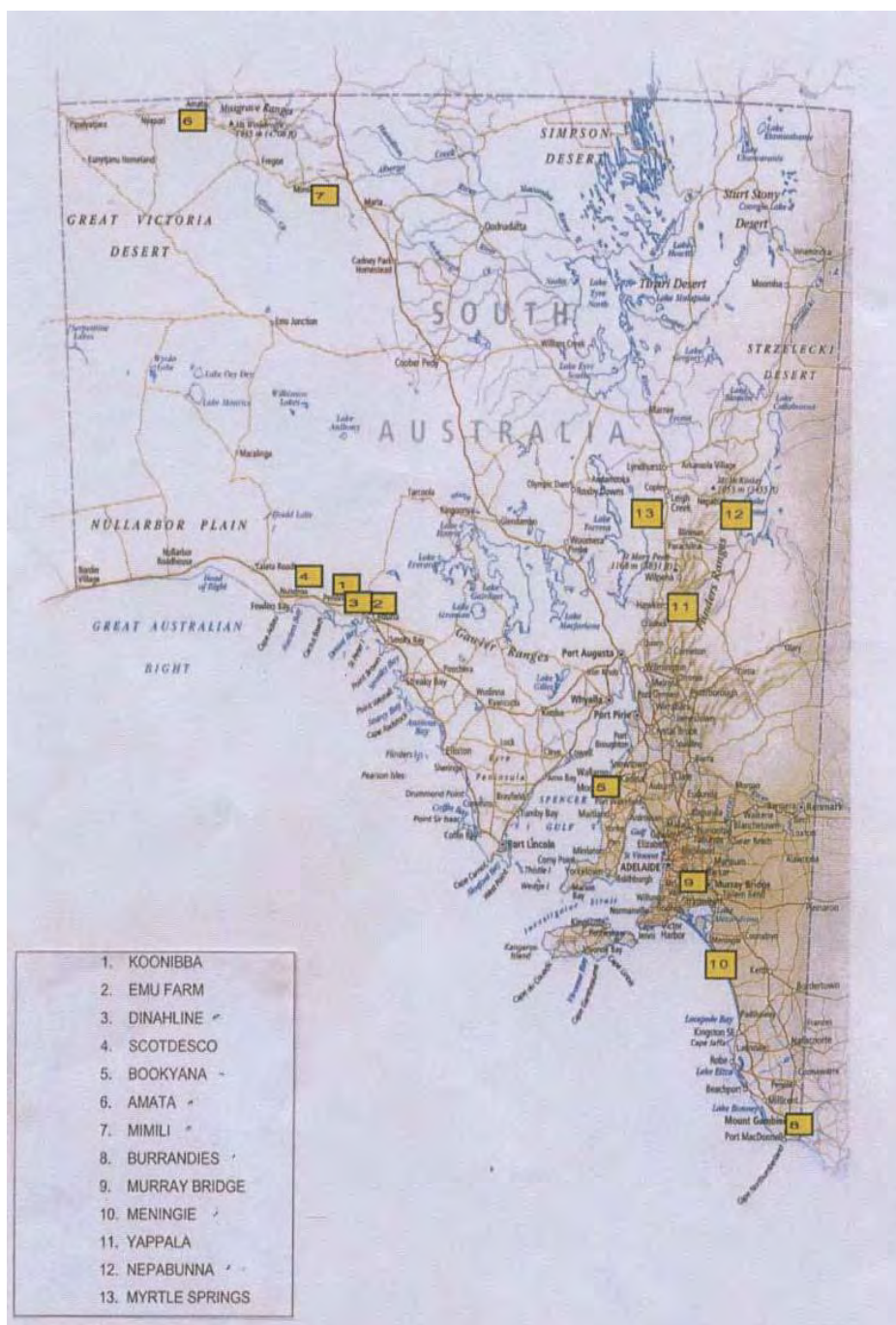
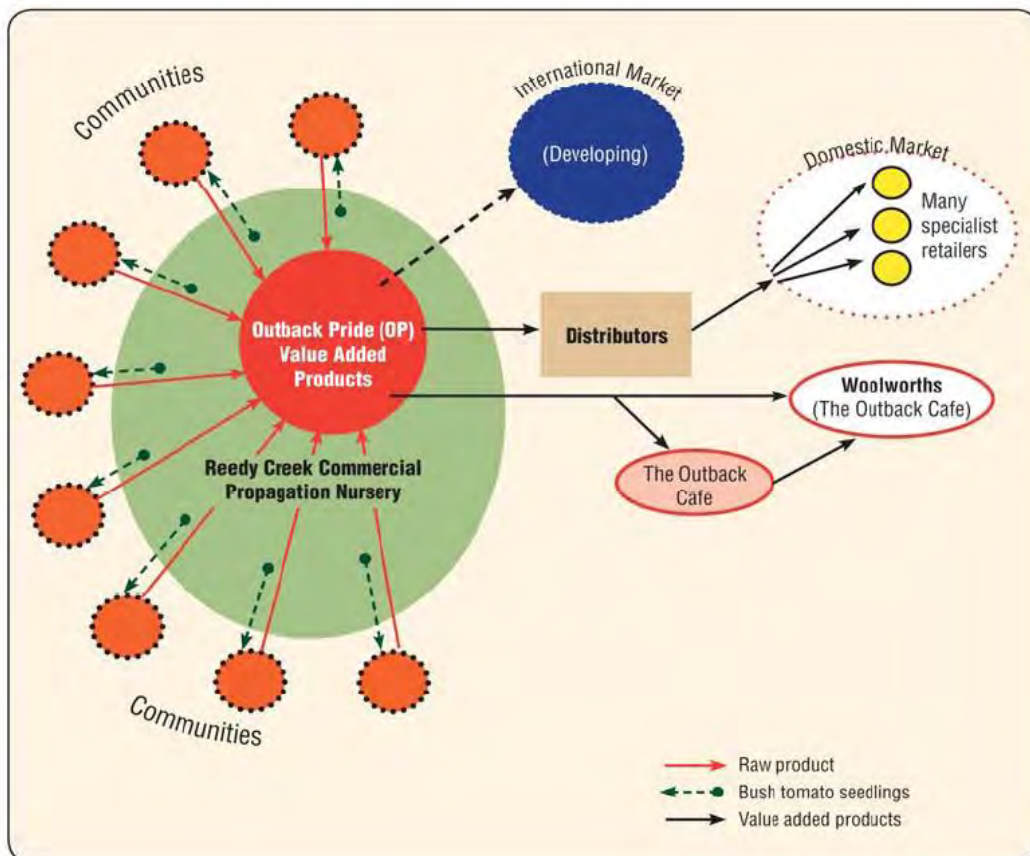


Figure 24: Map of Indigenous native food plots reviewed in South Australia for the *South Australian Native Foods Industry Report* (Armstrong Muller, 2007). Numbers 3, 5 – 10, and 12 were gardens actively involved with in the *Outback Pride* model during the course of the PhD research.

The Quarmbys explained how they developed the *Outback Pride* model to help make a difference to the lives of young Indigenous people on remote communities. **Gayle’s father**, Rex Batterbee, travelled to the central Australian outback settlement of Hermannsburg in 1932 where he trained renowned artist Albert Namatjira in watercolour painting and helped create the current Aboriginal art industry. Gayle grew up with Eastern Arrernte people in Hermannsburg, gathering bushfood with the women and children. **Gayle’s husband, Mike**, is a horticulturalist. Together, their stated vision is to facilitate and help create “**Jobs and training for Indigenous Australians**” through involvement in the bush foods industry. This phrase is also the slogan found on their *Outback Pride* product labels. The *Outback Pride* process was developed as a value-adding framework leading to sale of produce (see **Figure 25**).

Figure 25: *Outback Pride/Outback Cafe* supply chain. (Bryceson, 2008; p. 14) (Note: this diagram focuses on bush tomato seedlings only; however, each community receives seedlings from a variety of local bushfoods.)



Reedy Creek Nursery in south-east South Australia is the commercial base for research and development of the *Outback Pride* project, where Mike Quarmby has created the systems of propagation and cultivation for up to 64 bushfood species - cloning plants for better production, fewer prickles, greater height, and larger fruit with good flavour (Bryceson, 2008). The Quarmbys began developing a network of horticultural plots in Aboriginal communities in the year 2000 with 20 communities initially involved (Mike Quarmby, pers.

comm., April 2006). Undertaking a number of trial projects supported by funding from the Indigenous Land Corporation (ILC) and Dept. of Premier and Cabinet SA, the Quarmbys provided plants, plot establishment such as bed preparation, irrigation, weed matting, mechanical bed laying and fencing (Armstrong Muller, 2007). Since 2000, they have been growing the *Outback Pride* supply base, with eight community gardens supplying produce into the supply chain during the years of the PhD research (ref. **Figure 24** above). The Quarmbys explained that after years of mentoring, developing and supplying plants, further government departments have since provided funding and expertise to the model, including the Department of Education, Employment and Workplace Relations (DEEWR), and Regional TAFE SA.

*We felt it important to create an industry in which indigenous youth can have a sense of ownership, that is seen as worthy within peer groups, and has measurable social outcomes. [Gayle Quarmby quoted in *The Advertiser* (Hurt, 2002)]*

With a focus on Aboriginal employment and training, and from the market/production point of view, the Quarmbys believed an ecologically non-sustainable supply of wild-harvested foods of questionable quality would not create a bush foods market pull. Therefore, they developed the *Outback Pride* cooperative style approach with an emphasis on horticulture. Mike and Gayle described how prior to setting up plots, they did a review of horticultural programs and plots that had previously been active in Aboriginal communities. They found that most abandoned patches had been market-garden style, European vegetable plots, that were no longer tended unless a supervisor was on-site. In contrast, they were confident that horticulture based on locally available bush food plants that were traditionally eaten, would create more sustainable interest and ownership.

Providing seedlings to Aboriginal communities, the plants are grown in community gardens, then the raw produce is sold back to the Quarmbys and returns to Reedy Creek Nursery for value-adding – into sauces, chutneys, dried flavouring sachets, and cordials (under the *Outback Pride* label). Mike Quarmby described how all produce comes from the best plants/clonal varieties grown in the gardens, and that the *Outback Pride Growers' Plan* guarantees to buy all produce, whether needed or not, with an MOU signed with each **community for five years' supply of produce**. The MOU also restricts plant sales for non-Indigenous commercial growers and stipulates that Plant Variety Rights will not be applied for at any stage (Spencer & Hardie, 2011). Garden labour costs have been covered by CDEP-funded positions and TAFE training programs. Farm-gate harvest prices have averaged \$20-\$35/kg, depending on the species, and have been paid to individual harvesters on a seasonal basis. In addition, an amount equal to the total harvest sales for each harvest in each community has been paid into a respective community fund, and used to help cover the upkeep costs of each plot. The raw produce is either dispatched to

distributors throughout Australia, sent overseas, or used to produce *Outback Cafe* stock in Woolworths supermarkets (ref. **Figure 25**). In 2007, the *Outback Cafe* range of products entered the Woolworths supermarket chain and was promoted through *The Outback Cafe* TV show which was hosted by Aboriginal personality and chef, Mark Olive. These products and TV marketing ventures have taken modern native cuisine to a wider audience and the *Outback Pride* project provides the supply chain. Outback Pride products have also sold through Oxfam Fair Trade Shops in Australia, marketed for their relationship to community development (Spencer & Hardie, 2011).

Over the past eight years, more than 200 Aboriginal people living in South Australia have been directly involved in a variety of bush produce activities through the *Outback Pride* supply chain. Some people work as distributors, helping market and transport value-added goods both state-wide and interstate and/or are involved in tourism ventures where value-added produce is introduced and served as part of a broader bushtucker experience (see *Bookabee Tours Australia*, 2009). Still, to date, through this engagement process, most Aboriginal people have been involved in the growing and harvesting of raw produce. However, an increasing number are now actively seeking alternative ways to build family-based businesses that allow for greater ownership and control of the produce. Often supplementing limited income from bushfood crops with alternative livelihood incomes, (e.g., from the growth and sale of more conventional horticultural produce), individual entrepreneurs are emerging who have learned to cope with the sporadic nature of the fledgling bushfoods industry (e.g., Ron Newchurch and his extended family, of the Narungga people on the Yorke Peninsula, have developed the *Bookyana Bushfoods* enterprise).

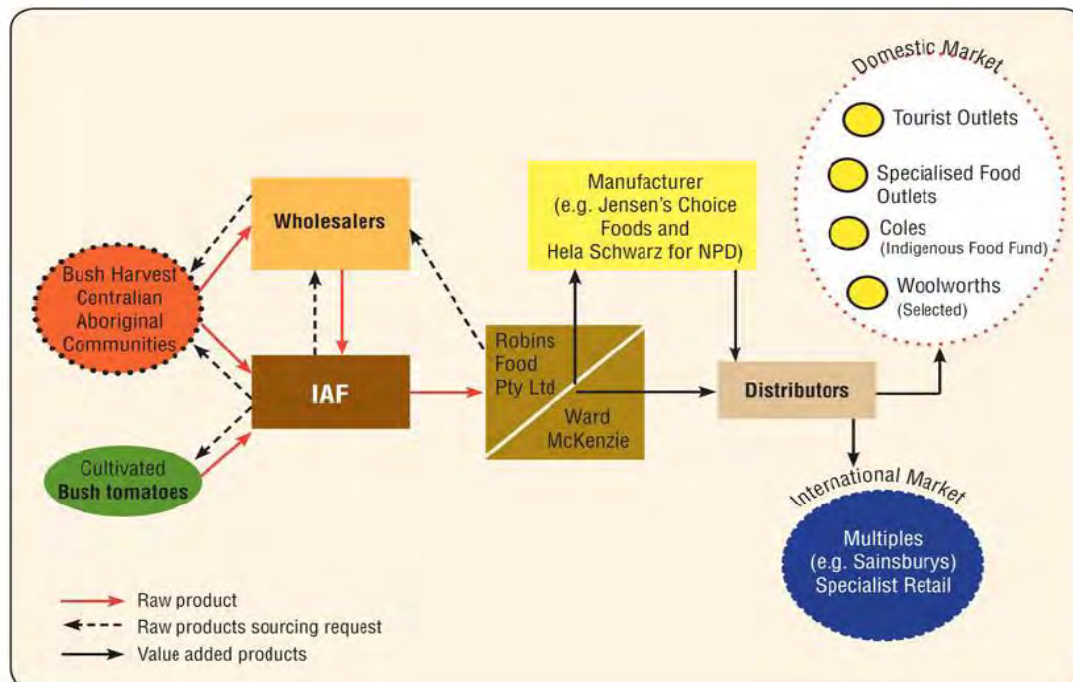
Still, my question is, despite reportedly promoting the idea of Aboriginal ownership in this project, how successful has this been to date? The long-term aim of the *Outback Pride* model is for medium to large scale horticultural production, with the emphasis again on providing jobs and training; however is this really the focus for Aboriginal people involved in these activities? Is the large-scale horticultural venture supported by community members, or is it primarily aimed at ensuring an on-going supply of raw produce for an increasingly non-Aboriginal industry to develop? Are people happy about and interested in the growing of their traditional plants in gardens, and are people increasingly becoming involved in horticulture as a result?

Because of the importance of the Quarmbys' model of building a native food industry, some case studies were considered worthwhile. Chapter 5 will report on people's experiences involved in the *Outback Pride* network on the Far West Coast and in the APY Lands of South Australia.

The 'Outback Spirit' Model

Juleigh Robins is a Melbourne-based chef. *Outback Spirit* is the brand name of Robins Food Pty. Ltd., her family-owned food processing company located in Victoria that is 50% owned by Ward McKenzie Pty. Ltd., another family-owned business with reportedly a strong **commitment to Australian produce and 'putting back' into the community** (Bryceson, 2008; p. 13). The joint company sources most raw materials from Aboriginal communities through a venture with Indigenous Australian Foods (IAF) Ltd., which is a not-for-profit procurement company that manages the supply of bushfoods from regional member companies and reportedly distributes funds back to said suppliers to improve propagation and harvesting of native species (see **Figure 26**). Robins Foods manufactures and markets a range of Australian native food products to a variety of domestic food service providers, including Coles supermarkets (in association with the Coles Indigenous Food Fund (CIFF), Woolworths, various other domestic outlets, and several overseas retail outlets (particularly in the USA and the UK) (Bryceson, 2008; p. 14). **Manufacturing relationships with Jensen's Choice Foods and Hela Schwarz** ensure on-going product development (*ibid.*; p. 13).

Figure 26: *Outback Spirit* supply chain. (Bryceson, 2008; p. 12) (Note: the diagram focuses on bush tomato produce; however, other Arid Zone species follow a similar path, including: wattleseed, quandong, and desert limes.)



IAF procure raw product from Australia's various climatic zones with more than half of the total national Indigenous supply of bush produce coming through them. This amounts to a few hundred thousand dollars per year worth of produce for suppliers, which turns into over five million dollars in retail value (Wayne Street, pers. comm., April 2006). IAF General Manager, Wayne Street, explained that the focus of IAF is on *Aboriginal equity*, not

Aboriginal production; rather, IAF is building “genuine joint venture partnerships between Aboriginal organisations and private enterprises”. This involves the ownership of brands and endorsement of products – **which is “aimed at true empowerment”** (*ibid.*). Aboriginal people associated with IAF are involved in nursery production, value adding, and storage, and Street said that this focus has been purposeful, (as opposed to the sole support of growers and harvesters) as the value-adding activities are where true empowerment is seen to develop (*cf.* harvesting industry fluctuations). As the source of product is not the focus of IAF, non-Indigenous main-stream farmers can also sell to them, with the capacity of the growers to supply being the most important factor, as demand currently exceeds supply and consistent supply is a problem (*ibid.*).

The trick is to find a balance between 1. growth for monetary returns, and 2. growth for nutrition / health and socio-economic needs - including employment, self-esteem, In many of these places there simply is no other economy.

(Street, pers. comm., April 2006)

The COLES Indigenous Food Fund (CIFF) is also hoping its efforts will ensure an on-going Indigenous role in the industry (Chris Mara, pers. comm., Sept. 2008). The fund was developed in 2001 after discussion with growers, manufacturers, and the CSIRO, during which it became clear that sustainable commercial harvesting and cultivation were very important if manufacturers were to be able to secure supplies. To ensure Aboriginal groups were involved in this, Coles established the fund to be used by Aboriginal enterprises and communities to improve their harvesting and cultivation practices (see <http://www.coles.com.au/About-Coles/Community/Coles-Indigenous-Food-Fund.aspx>).

The amount available in the CIFF is seasonal, as it comes from sales of produce. At first, sales were low (in the \$10,000s/year), but in 2008 they were around \$2 million/year, so there are many more funds available (*ibid.*). Twenty-five cents from the sale of each *Taste of Australia* product goes into the CIFF, plus five cents from *Outback Spirit* or *Red Ochre* (suppliers) sales. Funding to date has been used for equipment and research into **agricultural sustainability of native foods, with recipients working with Coles’ suppliers to** improve cultivation, harvesting, and propagation techniques. In its aim to increase the demand for bushfoods, CIFF has also supported the development of the national body, ANFIL, as well as several Indigenous organisations located throughout the country. Over \$100k in grants were given out over the 2008/2009 year (Mara, pers. comm., July 2009).

The *Outback Spirit* supply chain and business model is still being developed, in accordance with the evolving bushfoods industry. Indeed, in a recent review of the model (Robins,

2005; 2007)⁴, it was described as “part reality and part aspiration”. The review concluded that the *Outback Spirit* approach presented “a unique business model, well-suited to developing working partnerships with Indigenous and non-indigenous people” (Robins, 2007; p. viii), due to its flexibility allowing partners to participate at a level that matches their capacity.

Aimed at providing the perspectives of the major players in the *Outback Spirit* chain, the Robins (2007) report focussed on three Indigenous members of IAF, including one located in the Arid Zone - The Australian Aboriginal Food Company Ltd. (AAFC), located 200kms north-west of Alice Springs. However, only the non-Indigenous agent of this company, Janet Chisholm, was interviewed for the report, and the following viewpoints noted:

- direct access to (Central Australian) harvesting women and language barriers were considered **“constraints to supply chain development”** (*ibid.*, p. 23)
- **“traditional lifestyles”** were seen to be possibly threatened or compromised if people were empowered to take the lead role in harvesting, storing, selling, and transporting bushfoods (*ibid.*, p. 18).

My comment here is, surely if you insist on perceiving language (and by association, culture) as a **“constraint”**, you are only going to succeed in preventing people from playing a more active role? **Where’s the empowerment in this structure?**

Although seemingly based on “noble principles” (e.g., returns to member companies), there is a risk (as demonstrated above) that the *Outback Spirit* approach could overlook or downplay the role of the suppliers, harvesters, and growers, while heartily endorsing products for manufacturers – which would amount to a form of cultural appropriation. To prevent such an occurrence, as Robins (2007; p. 63) concluded, it is extremely important that the ‘cultural authenticity’ of the *Outback Spirit* supply chain “be matched by appropriate structures and approaches to governance of IAF itself and within each of its member organisations.”

The supply of wild-harvested bush tomatoes into this bushfoods supply chain model (as well as the following wholesaler model) by many central Australian Aboriginal women made the Anmatyerr case study in Chapter 5 an important choice.

Wild Harvest – A Central Australian Wholesaler Model

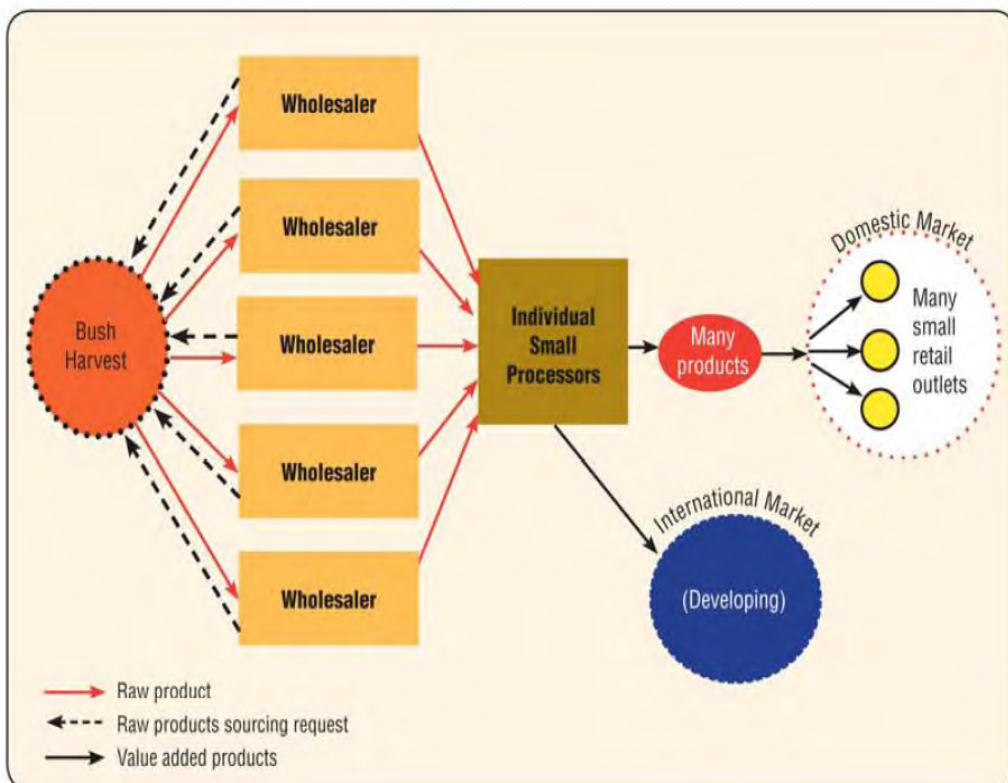
In 1998, Christensen and Beal reported approximately 80% of industry produce being supplied from wild-harvest, and they estimated that within five years almost 100% of

⁴ Note: this review was conducted independently, written by “L. Robins” who clearly states on p. iv that she is not a member of the *Outback Spirit* Robins family.

produce would be supplied from commercial bushfood farming enterprises. However, wild-harvest remains, a decade later, the main source for Arid Zone produce. Despite Morse (2005) identifying approximately 68 native plant species with commercial potential in Central Australia, the central Australian bushfood industry is essentially based on two key foods: *Solanum centrale* (desert raisin or bush tomato); and various species of *Acacia* (wattleseed). Most commercial raw produce is harvested from the bush by Aboriginal women. Morse estimated that more than 500 Aboriginal people would have collected 3-5 tonnes of produce for sale during the period 2002-2005, enabling collectors to “make good money for short periods of time” (2005; p. 34). Wholesalers operating throughout the region bought the raw produce to either value-add and/or sell on to other processors, producers and manufacturers (Figure 27). Morse was himself a wholesaler until 2007 and his descriptions of bushfood collectors are based on first-hand experience of wholesale trade. In describing bushfood collectors in the Alice Springs region, Morse (2005) wrote:

Enthusiastic Aboriginal bushfood collectors live in most of the communities in Central Australia. Usually, collectors are women and range in age from their early twenties through to their seventies. They have in common a detailed knowledge not just of species and their use, but also of their ecology, distribution and reproductive status. These strong women have a very strong work ethic, extremely well-developed collecting skills, strong family values, a commitment to culture and an unflagging motivation to be out together in their country. In an important sense, the opportunity to earn money by selling bushfoods they collect provides a catalyst that encourages them to get out and do the things that they really want to do (p. 35).

Figure 27: Generic central Australian wholesaler supply chain model. (Bryceson, 2008; p. 15)



Morse described how these incomes are seasonal⁵, but can be quite significant, with money often being used to buy food and clothing for the family, and sometimes even white goods, TVs, and vehicles (p. 35). Morse stressed the range of livelihood and well-being benefits that come from bush harvest, including physical, emotional, and spiritual health benefits associated with the increased exercise, the healthy eating and gathering of other non-commercial bushfood plants and animals, the time spent away from the often hectic life in communities, time spent together with kin, and increased opportunities to pass on stories and knowledge to younger generations. Similarly, a study conducted on the creation of a wild harvesting seed collective by the Ngaanyatjarra **Pitjantjatjara Yankunytjatjara (NPY) Women's Council in 2003 emphasised** the importance of a small-scale local focus to ensure opportunities are felt on the ground (NPYWC, 2003).

Of the 68 plant species Morse (2005) identified, 14 were labelled **'best bets' in terms of high** food quality (including taste, appearance, consistency, nutrition, and versatility), and good availability (whether collected from the wild or easily cultivated). To date however, as previously mentioned, most commercial harvest of desert produce has focused on *Acacia* species and *S. centrale*, (accounting for just 6 of the 14 food species Morse identified). Morse reported **that "wattleseed is the most important resource, in terms of volume and value, currently collected in central Australia, making up between 60% and 100% by weight of all material traded in any given year"** (p. 48). Virtually all seed supplied from Central Australia to date has been collected from the local bush and yet most processing occurs outside Central Australia.

Many central Australian Aboriginal women sell their bush-harvested foods and produce into wholesaler supply chain models (see **Figure 27**). Chapter 5 describes how women participating in the Anmatyerr case study often choose to sell their raw and value-added produce into such supply chains - including the sale of bush tomatoes and acacia seeds, which are sometimes sold to independent wholesalers in preference to sales into the *Outback Spirit* model. Individual Aboriginal entrepreneurs based in Alice Springs also regularly buy produce through the local wholesaler supply chain model (see below).

Individual Entrepreneurial Model

There are a small but growing number of Aboriginal people who are personally involved in various stages of the bushfoods value chain, from harvesting and/or processing raw produce through to value-adding foods for retail sale. There are also a number of people involved in

⁵ Indeed, during 2006-2008 the bush harvest was extremely limited/non-existent – due primarily to very dry conditions (lack of rain), but perhaps also due to altered fire management regimes, and/or competition from introduced animal or plant species (cf. Latz, 1995).

development and sales of native plant medicinal rubs, sometimes offering traditional healing massage services alongside products. Unlike the larger bushfood supply chain models, such enterprises are most often focused on local markets, (although some are slowly increasing their sales both nationally and internationally). In Chapter 5, interviews with several bush produce entrepreneurs offer insight into some of the benefits and risks associated with this approach.

4.3 Benefits and risks – a reality check

Despite the growing interest shown in NTFP commercialisation, international studies have shown the positive correlation between NTFP production and trade, and conservation and development remains inconclusive (see Neumann & Hirsch, 2000; Arnold & Ruiz Perez, 2001; Belcher, Ruiz-Perez, & Achdiawan, 2005). Improved conservation of resources has not always occurred (Dove, 1994) and commercial extraction from the wild may lead to increased inequalities between households and to resource depletion if not managed (Kusters *et al.*, 2006).

It is increasingly recognised that benefits of NTFP commercialisation must be weighed against any negative social and cultural costs, and that there may be need to be trade-offs between the preservation of traditions, cultures, and social norms, and the benefits from increased income (Leakey, Tchoundjeu, Schreckenber *et al.*, 2005). Studies tend to conclude that commercialisation can create both “Winners and Losers” (Sullivan & O’Regan, 2003), but positive outcomes can be maximised “if the importance of community involvement is appreciated by external players and if the communities themselves work together and use their own strengths to manage and use their resources effectively” (Leakey *et al.*, 2005; p. 13). The following section details and compares some of the major benefits and risks that have been reported in various international and Australian studies.

4.3.1 Documented benefits of NTFP commercialisation – contributions to livelihood assets

NTFP commercialisation is of immense importance to the sustainable livelihoods of millions of people worldwide. The benefits reportedly experienced from industry involvement are extremely broad and varied.

HEALTH, FOOD SECURITY, DIET AND NUTRITIONAL BENEFITS

Food poverty remains a daily challenge for more than 800 million people, despite great progress with industrialized agriculture. Hunger accompanies increased food productivity. (Pretty, 2002; p. 101)

Many of the NTFP species are valuable sources of nutrition (Leakey, 1999) and some offer nutritional benefits to enhance resilience to epidemics such as HIV/AIDS (Barany, Hammett, Sene, & Amichev, 2001). Many traditional foods meet the major protein-calorie nutritional needs of children, the sick, elderly, expectant and lactating mothers (FAO, 1988). Forest products can also act as safety nets to help mitigate the impacts of poverty and HIV/AIDS by providing natural capital for subsistence and income, as well as providing raw produce for traditional medicines (Shackleton, Kaschula, Twine *et al.*, 2006). Local production activities usually have low barriers to entry and allow producers to work from home and earn an income while caring for ill household members and/or young children (*ibid.*). In this way, natural forests and agroforestry systems can play an important role in rural household coping strategies.

Major causes of death, illness, and disability in the Australian Indigenous population that have diet as a risk factor include: cardiovascular disease; type 2 diabetes; and renal disease (ABS & AIHW, 2005). There have been many studies that point to the nutritional benefits of bushfoods and the health and well-being benefits of living on traditional country (Rowley *et al.*, 2008; Burgess *et al.*, 2005, 2009; McDermott, O'Dea, Rowley *et al.*, 1998; O'Dea, 1984; Morice, 1976). Burgess *et al.* (2005) defined Aboriginal health and well-being as "achieved qualities, developed through relationships of mutual care of kin, non-human affiliations, and observance of ethical conduct described by the law or dreaming that is encoded within the **landscape**" (p. 118). They emphasised how contemporary Indigenous Natural and Cultural Resource Management (INCRM) activities, including subsistence and commercial harvests of bush produce, may help improve the physical, social, and psychological health and well-being of Indigenous Australians.

Such studies highlight the importance of the local market, including active subsistence harvests and/or bushfood sales in community and local stores. Frozen kangaroo tails⁶ are usually widely available and more recently small packets of bush tomatoes have sold steadily in stores on the *Anangu Pitjantjatjara Yankunytjatjara (APY)* Lands of north-west South Australia and in Alice Springs supermarkets. Locally produced bush medicines are also very

⁶ Kangaroos are commercially harvested for meat used for human consumption and pet food, and their skins are tanned to produce leather. Kangaroo tails are supplied to community supermarkets through a kangaroo product supply chain that is primarily controlled and regulated by non-Aboriginal people (Thomsen & Davies, 2007). As Thomsen and Davies (2006; 2007) wrote, Aboriginal people are generally not involved in kangaroo management or in the kangaroo industry, despite kangaroos being of cultural significance to Aboriginal people.

popular with local Aboriginal people, being sold at community stores, outlets in larger towns, and local markets, as well as actively traded between extended kin.

The medicinal properties of bush produce are also receiving increasing media attention - from anti-cancer hopes (Anon., 2001a), to antioxidant claims (Perkins, 2007) – the latter recently proven through RIRDC research by Konczak *et al.* (2009). There is increasing use of **bush produce both in hospitals (e.g., Alice Springs’ bush medicine garden; Royal Darwin’s bushfood menu)** and Aged Care facilities and services. In far western New South Wales, the Meals-on-Wheels Association is in the process of incorporating bushfoods into their program. During consultations with local Aboriginal community members, strong support was shown for the concept of setting up a bush tucker enterprise, with the combined goals of furthering self-determination, generating employment and training opportunities, and assisting with health (Steve England, pers. comm., Oct. 2008). Meanwhile, in the Northern Territory, the Department of Health and Community Services promotes bushfoods not only for the range of nutrients they contain, but also for the important role they play in the healing and spiritual practices of many Aboriginal peoples, as well as the exercise and enjoyment provided during hunting and collection trips (<http://www.health.nt.gov.au>).

CAPACITY BUILDING, EDUCATION, AND EMPOWERMENT OF LOCAL PEOPLE

Shackleton, Wynberg, Sullivan *et al.* (2003) reported that commercialisation of the southern African marula⁷ fruit and kernels has helped build entrepreneurial skills amongst women, **providing them with “independent income and stature” (p. 19).** They reported that money earned is usually invested into education of children. Greig (2006) reported that shea nut production in West Africa is unique, in that it can only be done by women who possess knowledge of the location and history of shea trees, and the timing and process of harvesting nuts (p. 466). Greig (*ibid.*) wrote that this knowledge gives them respect, **authority, and control over resources.** Sullivan and O’Regan (2003) found greater awareness of NTFP values also spurred social networking between different communities – promoting the formation of producer groups.

Walsh, Douglas, and Jones (2006a,b) estimated that 300-500 Aboriginal people are involved in wild harvest throughout Central Australia. Most are middle-aged to senior women who undertake short periods of self-directed work, not imposed by outsiders. Walsh *et al.* reported the women being highly motivated and utilising knowledge on a range of things: seasons, weather, plant growth, geography, and language. They explained that these

⁷ Marula (*Sclerocarya birrea*) is a common species found throughout the semi-arid, deciduous savannas of Sub-Saharan Africa (Coates, 1956; Peters, 1988). It is important in the diet, tradition, and culture of rural communities in southern Africa (Wynberg, 2006).

women traditionally harvested bushfoods solely for customary use, but now also sell their foods on to wholesalers.

In 2005, Walsh *et al.* helped form a central Australian Aboriginal reference group to facilitate the provision of expert information and guidance to their bush harvest research, as well as the dissemination of research results through this group to a wider audience of Aboriginal people (Douglas & Walsh, 2008). Eight Aboriginal women Elders from Central Australia came together to emphasise the cultural importance of bushfoods and to help develop guidelines for industry research and development, particularly in regards to commercial bush harvest. Named *Merne Altyerr-ipenhe* (Food from the Creation Time), the group work to enhance cross-cultural knowledge and respect, as well as providing support and information to bush harvesters throughout Central Australia.

The reference group is based in Alice Springs and now comprises seven members who are senior cultural experts and/or business people from various central Australian language groups who are concerned for the long-term sustainability of the bushfood industry in **Australia and Aboriginal people's** on-going involvement in it (ref. case study 9.1 in Janke, 2009). The reference group members have formulated a sustainable enterprise model, based on the relationship between commercial bush harvesters and wholesalers. Within this model, they identify key elements to a sustainable approach to enterprise development (and subsequent livelihoods enhancement), and stress the interconnected nature of such elements (or assets):

- **Social:** *trusting relationships; direct exchanges; long-term mutual benefits; additional services offered.*
- **Cultural:** *harvester independence; use of existing skills; high degree of expertise and efficiency; recognition of multiple values.*
- **Economic:** *work, not welfare; cash per kg harvested; quality product; different views on pay.*
- **Ecological:** *traditional knowledge is maintained; strategic burning and pruning occurs; harvest impact is low; ecosystem degradation is identified* (Walsh, Douglas, & Jones, 2006b).

It can be seen that this includes most of the elements identified when reviewing SL approaches in Chapter 3. This group has been working on culturally derived guidelines for researchers and others in the commercial bushfood industry, including the development of a code of conduct that recognises Aboriginal intellectual property (Douglas & Walsh, 2008). Twelve protocols form the basis of this code, covering topics such as: respect for Aboriginal people and cultural traditions; equitable benefits and returns; Aboriginal employment, training and learning; Aboriginal cultural education about bush foods; Governance by Aboriginal people; geographic origin; and, restoration of country, ecology, land care and communication (Walsh cited in Janke, 2009, pp. 142-144).

INCREASED ECONOMIC ACTIVITY AND EMPLOYMENT

In some countries, the NTFP sector generates millions of dollars of revenue and employs millions of people [e.g., the sale of honey and beeswax in Tanzania (Mwakatobe & Mlingwa, 2006)]. In many other regions, the economic benefits fuel local-level community governments, providing employment for a limited number of community members [e.g., the Iroquois cranberry growers of Central Ontario, Canada (<http://www.iroquoiscranberries.com>)].

Still, Belcher, Ruiz-Perez, and Achdiawan (2005) criticised a common expectation that commercially traded NTFPs should act as primary income sources. Their research found that traded NTFPs contribute only a portion of household income, and that in the majority of cases, it is a small proportion. Rather, Belcher *et al.* advocated the need to consider NTFPs in terms of economic systems that are used in various ways, but most often in combination with other economic activities, to help spread risk and to modulate the timing of income - e.g., cash for school fees at a time of year when few other income sources are available (Schreckenber *et al.*, 2002). Things like production for direct consumption can make economic sense where the cost of market transactions is high. Belcher *et al.* (2005) also emphasised the changing role of NTFPs over time, according to circumstance and opportunity (*ibid.*; p. 1444). For instance, First Nations people in Saskatchewan, Canada developed wild rice cultivation to help supplement the income from other commercial activities prone to fluctuation, including the harvesting of wild foods such as mushrooms and berries, and fur trapping and commercial fishing (Warwick, 2004).

Most Australian references to economic benefits associated with bush produce industry involvement to date remain hypothetical. In a report written for the RIRDC in 2004, Miers highlighted the need to diversify land use in Central Australia to provide increased opportunities and improve economic viability, thereby increasing economic independence. In particular, he pointed at the bushfoods industry as providing an opportunity to supplement existing incomes, providing industry and employment for small community groups. In his experience, factors helping to maintain enterprise momentum over the longer term included on-going support from the local community, training services, and government agencies, including financial remuneration through the CDEP program.

Similar conclusions and implications were drawn from a more recent northern Australian study by Whitehead *et al.* (2006) which pointed to the need for an extension to the usual criteria used to judge commercial viability. Claiming that support from Government is **required, "at least in the short to medium term", to help overcome constraints** related to remoteness, diseconomies of scale, and lack of infrastructure and financial assets, the

researchers emphasised the need for such support to be offered “incrementally and iteratively” so skills, interest, and infrastructure developed alongside enterprise, to help increase confidence and capacity to engage. To this end, they stressed the need to embrace the legitimacy of a ‘hybrid’ economy where state, market and customary sectors coexist and interlink (Altman, 2001).

The necessity of an alternative approach to entirely market-driven development was again supported in Morse’s 2005 report, where he identified three main areas of potential benefits likely to accrue to Aboriginal people’s livelihoods from involvement in bush produce enterprises. While local, regional, and personal economies constituted one area of benefit, Morse emphasised the strong inter-linkage between this and the other two areas, namely society and culture, and health and nutrition. Accordingly, some of the specific benefits mentioned in his report, (based on the observation and experiences of participants in bush produce enterprises, and other people who had witnessed Aboriginal bush resource collection and/or trade activities), included: provision of opportunities for women to build and maintain social ties and community cohesion, and to learn, use, renew and pass on traditional knowledge in a non-contrived setting; increases in self-esteem and confidence as a result of the valuing of traditional knowledge and skills; personal income earning possibilities that are enhanced by the cultural relevance of the work; as well as significant health benefits from increased consumption (pp. 22-24).

SOCIAL AND CULTURAL BENEFITS

There has been a reported resurgence of traditional cultural worldview and values among many Indigenous peoples involved in NTFP commercialisation. In Canada, traditional ecological knowledge (TEK) has been combined with technology to create new livelihood enterprises for many Indigenous communities, providing a contemporary arena for the validity of traditional knowledge. Such enterprises include: commercial maple syrup operations (Dionne, 2004a); the rearing of domestic and wild herds of wood bison (Parry, 2000); salmon farming (Schreiber, 2002); wild rice farming (Pauls Orthner, 2006) ; berry growing (Iroquis Cranberry Growers, n.d.); peat moss harvesting (Favel, 2004); Aboriginal forestry (Parsons & Prest, 2003); and commercial native flora tea production (Dionne, 2004b). In regards to the latter, Inuit communities in northern Canada reportedly view tea production as an effective way to promote their culture and to help preserve traditional knowledge of their Elders (*ibid.*). Several Inuit communities participate in wild harvests, with profits from tea production mostly reinvested in other cultural projects. Noted local benefits of tea commercialisation include: enjoyment of a traditional beverage; cultural pride; continuance of wild harvest methods; promotion of resource growth; and potential significant economic impacts (*ibid.*) (ref. <http://www.avataq.qc.ca> for an example of the

herbal tea enterprise developed by the Avataq Cultural Institute in 1998 by the Inuit Elders of Nunavik). **In British Columbia, the Wilp Sa Maa'y ('House of Berries') coop was seen to embrace many First Nations' traditional values relating to pre-European commerce, including the re-institution of trade links between coastal and interior First Nations. The cooperative structure was also chosen for its fit with the traditional economic unit of *huwilp* (houses) (see http://www.ainc-inac.gc.ca/pr/re/coo/wilp_e.html).**

Market opportunities emerging for NTFP products in southern Africa have also been found to increase community cohesion within producer communities and prompt something of a **'cultural renaissance' (Welford, 2005)**. **Locally-based products and markets can be particularly important in this respect.** In Namibia, for example, the production process of **beer/wine from marula fruit is a significant social and cultural event: "Women gather under a tree...and make the wine or *omaongo* (beer) while socializing, singing, joking, and gossiping. It's a women's thing... Making *omaongo* is a mechanism for teaching girls how to become women" (den Adel, 2002)**. Shackleton *et al.* (2003) noted the possibility of the cash value obtained from marula trading acting as an incentive to retain traditional knowledge and skills associated with production where there has often been waning interest amongst younger generations in learning such skills. Shackleton *et al.* also highlighted the opportunity to build on these important cultural dimensions of marula in product marketing.

In Australia, Desmond and Rowland (2000) compiled an anthology of eight case studies into **Aboriginal people's experiences in commercial bushfoods horticulture, based on a project supported by the Aboriginal Rural Resources Initiative (ARRI) between 1992 and 1995.** They found that **intergenerational knowledge transfer was a key motivator behind people's initial interest and involvement in such horticultural enterprises** – [this was despite finding in one case that the commoditisation of bushfoods may have limited such transfer (Desmond & Rowland, 2000; p. 28)]. They also reported perceived beneficial effects of bushfoods horticulture involvement on crime rates and alcohol abuse, physical health and nutrition, training and employment opportunities – (often linked to enhanced self-esteem, self-confidence and cultural pride); as well as often disappointing financial return for effort.

Another recent project focussed on bushfoods and Natural Resource Management (NRM) is the *Kuka Kanyini* project in the remote community of Watarru, located in the far west of the APY Lands of north-west South Australia. *Anangu* (the traditional people of this region) are looking after traditional food sources by looking after the country where these plants and animals live – to promote social and cultural well-being and sustainable use. Emphasis to date has been on increasing the quantity and quality of bushfoods for community consumption, rather than for commercial return; however, long-term plans include the sale

of (excess) bush produce (Leanne Liddle, pers. comm., March 2006). Control of feral animals, particularly camels, help with bushfood regeneration in the area, as favoured plant species such as *Mangata* (Quandong - *Santalum acuminatum*) and *Ngalta* (Desert Kurrajong - *Brachychiton gregori*) show browse lines of defoliation and seedlings are scarce (McFarlane, 2005). Approximately 1200 camels have been mustered and sold to date (@ \$50-\$200/head) (*ibid.*). Many of the aims and objectives of the project have been reinforced through art and education, encouraging maximum intergenerational knowledge transfer. The project coordinator, Leanne Liddle, identified certain key factors in the project that she feels accounts for its success, including: the long-term commitment of state government support; the respect given by project staff to *Anangu* knowledge as being of “equal value to their own”; the importance of trust; and, the division of tasks into achievable small goals (*Kuka Kanyini* Pilot Project First Annual Report, 2005).

In 2005, a questionnaire was developed through a collaboratively designed and endorsed process between Watarru community members and the SA Department of Environment and Natural Resources (DENR) [formerly the Department for Environment and Heritage (DEH)] to measure the project’s impacts on people’s health and wellbeing (*Kuka Kanyini* at Watarru Health and Wellbeing Survey Report, 2005). Results from the survey give an insight into possible beneficial outcomes from involvement in natural resource-based projects, (particularly environmental management), including reports of: enhanced self-esteem; a fresh and diverse natural food supply; a sense of autonomy and control; hopes for cultural continuity and social sustainability; increased opportunities for exercise; knowledge sharing with school children and people from outside the community; and school children’s desires that the project provide future opportunities for meaningful employment within the community (*ibid.*). People also reported that they liked working outside or ‘in the bush’ and that the extra income earned (on a weekly basis) helped to buy food and clothing, as well as saving money. These findings relate to the health, education, and social and emotional well-being of people – all of which would ideally also improve through involvement in a commercial bushfoods harvest (ref. also ‘People on Country’ research: May, 2011).

NATURAL CAPITAL BENEFITS

The commercial harvesting and exploitation of some NTFPs actually tends to favour the growth and development of the raw produce. Examples include cardamon (Aubertin, 2004) and Acai palm heart (Anderson & Jardim, 1989). Commercialisation of marula in Namibia and South Africa has reportedly also given people incentive to plant and protect this species, with much interest shown in propagation (Shackleton, den Adel, McHardy & Shackleton, 2002).

Meanwhile, several recent case studies conducted on Aboriginal lands in Australia's Top End have pointed at the unlikely circumstance of confronting problems of over-harvest from the wild (Whitehead *et al.*, 2006; Gorman & Whitehead, 2006), and emphasised the need for local management to minimise risks to customary harvest. These recommendations arose from a participatory research approach during which local Aboriginal people repeatedly stressed the need to maintain and strengthen customary use of plant foods (Gorman & Whitehead, 2006). These studies were conducted in a participatory manner to encourage greater appreciation of the complex socio-cultural role played by wild-harvesting in remote Aboriginal communities, favourably linking enterprises that encourage Aboriginal people to be active on Country with additional environmental benefits, including better management of fire, control of feral animals and weeds, and organised monitoring of conservation status.

PHYSICAL CAPITAL BENEFITS

Shackleton *et al.* (2003) wrote that in regards to marula commercialisation, infrastructure development occurred at the community level, with fruit presses, scales, and storage facilities developed to enhance on-site production and processing. This has allowed local control over the commercialisation process and assisted in maximising local socio-economic returns.

In arid-zone Australia, most community-level infrastructure developed to date has been connected with raw produce cultivation, including irrigation systems and fencing. There is also potential for further on-site infrastructural development through funds from commercial sales, including the Indigenous Australian Foods (IAF) fund and the COLES Indigenous Food Fund (CIFF).

4.3.2 Documented risks of NTFP commercialisation – what happens when a resource changes from being a subsistence resource to a commercial commodity?

Commercialisation can also bring with it a number of threats - for subsistence users, for the resource base, and for traditional cultures and customs (Wynberg, 2006). Belcher and Warner (in Neumann & Hirsch, 2000) warned **that "outsiders who have knowledge, commercial networks, and product concessions commonly capture the greater portion of the benefits of NTFP commercialization"** (p. vii) (see also Dove, 1994).

Commercialisation objectives often underplay the cultural context in which NTFP production and trade occur, ignoring the broader historical and political paradigms. For example, Leakey *et al.* (2005) admitted to **"a negative aspect of domestication" being "the reduction**

of the market share of wild-collected NTFPs – **thereby disadvantaging landless rural people**” (p. 16). Such disadvantage is often seen as justified, due to the number of people benefiting; however, the effects of commercialisation can vary wildly and are a result of the macro-level legislative and policy environment, as much as any meso and micro-level priorities and practices.

THE LEGISLATIVE AND POLICY ENVIRONMENT

Local property and resource rights, ownership, and land tenure

Property rights often constrain the role of local people in the use and conservation of resources. **“Tenure systems provide the rules for governing who gets to harvest a resource, where they can harvest, how much they harvest, and for whose benefit”** (Neumann & Hirsch, 2000; p. 18). Four types of property – state, private, communal, and open access – and four basic kinds of rights – use, transfer, exclusion, and enforcement – influence the access to and use of NTFPs for commercial and subsistence purposes (*ibid.*, 2000).

Evolving Native Title legislation in Australia is allowing many Aboriginal peoples a greater say in the contemporary use of their traditional lands and resources. Different types of land tenure **can either enhance or prevent Aboriginal people’s involvement in and development of** bush produce enterprises. There are four main tenure types that impact on resource access and use in the South Australian and Northern Territory Arid Zone:

- NT Aboriginal Land (land held under the Aboriginal Land Rights (NT) Act 1976 (Cth))
- SA Aboriginal Land (land held under the Aboriginal Lands Trust (SA) Act 1966; and Anangu Pitjantjatjara Yankunytjatjara Land Rights Act 1981)
- Crown Land (National Parks, Conservation Reserves, and Pastoral Leases)
- Non-Aboriginal Freehold

Aboriginal land may be freehold, leasehold, or Crown reserve. In the Northern Territory, exclusive, inalienable title is held by Lands Trusts and administered by Land Councils under the *Aboriginal Land Rights (NT) Act 1976*, which provides traditional owners with unlimited and exclusive use and occupation of Aboriginal land *in accordance with Aboriginal tradition* [section 71(1), emphasis added]. In his 2005 review of opportunities for Aboriginal bush resource enterprises, Morse wrote that the respective functions of and relationship between Land Trusts, Traditional Owners, and Land Councils **“provides more ‘leverage in terms of property and resource rights’ than exists in any other part of the country”** (p. 82). Still, resource use *in accordance with Aboriginal tradition* effectively restricts bush produce harvesting to subsistence/customary use.

In their research on the sustainability of Central Australian bush harvest, Walsh, Douglas, and Jones (2006a,b) reported Aboriginal Lands Trust (ALT) lands to be the most productive – due to ease of access (few fences) and (possibly) on-going active land and resource management. In the Northern Territory, access to Aboriginal land has been mediated by the permit provisions of the *Land Rights Act* and the *NT Aboriginal Land Act*. This system has provided the basis for Aboriginal people to negotiate agreements for access to and use of resources on their land. Over the years, the process of negotiation facilitated by the permit arrangement has usually involved a number of stakeholders who have not always agreed with each other, nor with the complex bureaucratic requirements often associated with access to and use of land. As a result, some projects have taken a great deal of time to get off the ground - (or rather, **“in the ground” in the case of horticulture** and mining!).

In more recent years, this permit system was suspended and changes made to land tenure as a result of the Northern Territory Emergency Response, popularly referred to as **“the Northern Territory Intervention”** or simply **“the Intervention”**.⁸ The permit system was partially reinstated in 2008; however, the Intervention, which involved the removal of the *Racial Discrimination Act 1975* (Cth), has since been declared a breach of human rights (Nicholson, 2010), with external controls imposed without prior consultation (Altman & Hinkson, 2007).

In South Australia, the Aboriginal Lands Trust (SA) holds land in trust “for the economic and cultural benefit of the Aboriginal people of South Australia” (ATNS, 2007; emphasis added). The ALT (SA) is responsible for the administration, management and care of lands made up of former missions, farming properties and lands with Aboriginal heritage and cultural significance. **In the state’s far north-west**, the *Anangu Pitjantjatjara Yankunytjatjara Land Rights Act 1981* enabled land to be transferred to the *Pitjantjatjara Yankunytjatjara* people. This Act stipulates that all *Anangu* have unrestricted rights of access to the lands (Section 18); however, neither the Aboriginal Lands Trust Act nor the APY Land Rights Act specifically mentions the use of land and bush resources based on TEK.

In national parks, conservation reserves, and pastoral leases, Aboriginal peoples have usufructuary rights to **bush resources through the Commonwealth’s *Native Title Act 1993***.

⁸ In June 2007, purportedly in response to a federal report on child abuse entitled *“Ampe Akelyernemane Meke Mekarle: Little Children are Sacred”* (Northern Territory Board of Inquiry into the Protection of Aboriginal Children from Sexual Abuse, 2007), the Federal Government announced a ‘national emergency response to protect Aboriginal children in the Northern Territory’ from sexual abuse and family violence (Brough, 2007). This has become known as the ‘NT intervention’ or the ‘Emergency Response’. In the following months the emergency announcements were developed and formalised into a package of Commonwealth legislation (ref. the *Northern Territory National Emergency Response Act 2007*).

This legislation builds on clauses in the *NT Parks and Wildlife Conservation Act 1980*, the *NT Pastoral Land Act 1992*, and the *SA National Parks and Wildlife Act 1972* that stipulate the right of Aboriginal people to hunt and gather *for traditional subsistence and cultural purposes* [see the *Conservation Act*, section 122; the *Pastoral Land Act*, section 38(2); and the *National Parks and Wildlife Act*, part 5A, division 2]. The *NT Parks and Wildlife Conservation Act 1980* also stipulates the need for a permit when collecting plant products for commercial use (Sections 55-57). Morse (2005) described the process for obtaining a **permit as “convoluted, time-consuming and paper-intensive”** (p. 87), pointing at the incompatibility of a system based on planned yields with the unpredictability of arid-zone harvests. In addition, plants harvested on public and leasehold land can attract a royalty (Section 116) - although, as Cunningham *et al.* (2009) wrote, such royalties are not **currently collected due to “difficulties in enforcement”** (p. 21). South Australia has similar permit requirements in regards to commercial use of wildlife [*National Parks and Wildlife Act (SA) 1972* (Section 49A)].

Further legislation effecting access to and use of resources in the NT is in the Northern Territory's *Biological Resources Act 2006* which requires permits for bioprospecting (referring to the taking of samples *in situ* for research for genetic resources – ref. Section 5). Bioprospecting on Aboriginal lands, on pastoral leases, or in parks or reserves (with underlying Native Title) requires resource-sharing agreement and Traditional Owners must be stakeholders on Aboriginal lands. The Act stipulates that a benefit sharing agreement **“must provide for reasonable benefit-sharing arrangements, including protection for, recognition of and valuing of any Indigenous people’s knowledge to be used...including details of the source of the knowledge...and benefits to be provided or any agreed commitments given in return for the use of the Indigenous people’s knowledge”** [*NT Biological Resources Act 2006*, Section 29(1)]. The federal *Environment Protection and Biodiversity Conservation Act 1999* also legislates for equitable sharing of benefits [Division 6 (301)] and employs an Indigenous Advisory Committee to advise on operation of the Act, **“to take into account the significance of Indigenous peoples’ knowledge of the management of land and the conservation and sustainable use of biodiversity”** (*EPBC Act 1999*, Division 2A). However, the significance of land is (once again) focussed on traditional use - including non-commercial hunting and food-gathering; ceremonial and religious purposes [Division 4 (359A)].

In regards to non-Aboriginal freehold lands, according to the *Native Title Act 1993* native title has been **“completely extinguished” on freehold estates conferring exclusive possession** (Section 23A). This decision, however, does not greatly affect the commercial wild harvest

of bush resources in the Arid Zone, as most harvesting activities occur on Aboriginal Land or Crown Land.

As Morse (2005) concluded, these types of land tenure and their respective provisions in accordance with various Acts, specify a strict distinction between subsistence use – i.e., hunting and collection for own use or non-commercial exchange within family or clan groups – and commercial use or market exchange in the wider community; **distinctions that “in no way favour Aboriginal people’s (economic) interests”** (p. 82). While legislation does exist for the establishment of benefit-sharing agreements with non-Aboriginal parties in relation to resource conservation and use, Land Rights and Native Title legislation focus on traditional customary use of bush resources, and therefore do not support the commercial wild harvest. Additionally, the current royalty-based approach to resource use does not recognise IK/TEK.

External ‘community’ constructs; racism and marginalisation

Aboriginal settlements, particularly those in remote arid regions, are often without a viable economic base, made up of factions, and yet deemed a ‘community’ for socio-political administrative ease and bureaucratic expediency (Hunter, 1993). As Smith (1989) wrote, “many Aboriginal geographic communities/towns are not ‘self-governing social units’, but can often be collections of families, language groups, or clans who can be in competition for resources” (p. 19). Anderson (1989) explained how the primacy of family or ‘mob’ loyalties developed in such settlements when external authoritarian controls were relinquished. Inter-group inequalities consequently grew. In their statewide report, Armstrong Muller (2007) identified an associated risk to sustainable enterprise development from horticultural plots aligned to community, as opposed to individual families or groups, which they saw as potentially altering the individual level of commitment.

There’s not just one generic Aboriginal group. I think research and industry have to get that right. You know, if you’re talking about Akatjura and you think “oh well, there’s some Aboriginal groups in Melbourne or Adelaide farming it and that’s employment and benefits back to the Aboriginal people”, well, it doesn’t cut it. It should be benefits back to the people whose country that Akatjura’s come from. Akatjura doesn’t grow in Adelaide, it doesn’t grow in Melbourne. There’s not just one generic Aboriginal group in Australia where research and industry can kid themselves and think that they’re doing the right thing, when they’ve got no idea what the right thing is. (Anon. Aboriginal informant, pers. comm., May 2009)

The lifetime experience of racism for many Indigenous people is that their individuality is denied as a result of their racial identity (Hunter, 1993). Baum (2007) suggested that the history of racism and marginalisation for Indigenous peoples in Australia has resulted in paucity of social capital – particularly of the bridging and linking kind. Hunter (1993) described how colonisation shattered traditional social and kinship networks while excluding

people from networks that would link them to material and educational benefits. He emphasised the powerlessness and lack of social integration that are still experienced by Indigenous Australians – pointing at the violent history of contact and welfare policies designed to control lives. The idea that the capacity of people to control the circumstances **of their lives has an effect on their health is now called 'the control factor'** (NHMRC, 2000), and empowerment (or disempowerment) has been found to considerably effect physical and mental health (Devitt, Hall & Tsey, 2001; Morrissey, 2006).

By treating bush produce industry development predominantly as a scientific and legalistic concern, **the government and key industry players are effectively limiting Aboriginal people's** input, as there is no adequate means for hearing the cultural, social, spiritual, or ethical aspects (i.e., the broader livelihood-based concerns). To overcome this, Sivak (2006) suggested **we must "acknowledge the cultural foundations of sciences so that boundary maintenance may no longer be rendered invisible"** (p. 295), thus helping to highlight the **"equally-rational" alternatives to economic involvement and industry** development. Her study contains many pertinent observations of the tendency for hegemonic discourse and ethnocentric epistemologies to cast alternative views as **"problems based on ignorance"**. **Hence, education is seen to provide a means by which "inaccurate perceptions" can be** controlled and changed (p. 296). In regards the bushfoods industry, the failure to date to fully engage with the potential industry role of women who harvest bush foods and the inordinate focus on (including funding of) horticultural development, extensive scientific research and endless report writing, stands as an example of this ingrained, unquestioning **faith in the value of 'common'-sense** (Horton, 2000). The risk is the development of an industry that fails to fully engage and collaborate with those whose knowledge and expertise lies at the base of it all.

I don't think the (bushfoods) industry needs to empower people. I think people are empowered themselves and they practice that and do that themselves by doing what they do. When there's seed happening, they're empowered themselves to go out and be part of the industry. It's that whole outsider view of "we're going to empower you, Aboriginal people... We're going to empower you and look after your interests within the bushfood industry", and all that kind of thing... It just drives me crazy because that kind of approach is a whole deficit approach. So, I don't think it's a question of the industry empowering Aboriginal people; I think it's a question of the industry respecting and acknowledging Aboriginal people, ... not empowering. Empower Aboriginal people to do what?

(Anon. Aboriginal informant, pers. comm., May 2009)

Threats to cultural integrity, including incommensurabilities between the IP regime and Indigenous knowledge regimes

In a desire to enhance economic development, many communities view NTFPs as providing income-generating opportunities for community members; however, others have made a

decision against commercialisation, or have accepted it only under certain conditions. In many cultures there are concerns about the appropriateness of the commercial trade of a crop with strong traditional ties. In the Pacific, for example, some communities express concern about the commercial trade of kava (*Paiper methysticum*) – a mild intoxicant sold to relieve stress that traditionally was not harvested for money (Bell, 2000). Similarly, many Indigenous groups in the Amazon are opposed to the patenting of NTFPs that are held sacred and therefore considered inappropriate for individuals to have exclusive rights over any aspect of them (Downes & Laird, 1999). In particular, the healing power of many herbs in helping others is considered by some to be a greater reward than any potential monetary gain (Brigham & Ralph, 2004/05).

Microeconomic theory predicts that as people become more integrated into the cash economy they will specialise in the more valuable forest products and reduce their activities in less valuable subsistence activities (Homma, 1992). However, the exact effects of income on the use of NTFPs depend on the individual resource (Godoy, Brokaw & Wilkie, 1995), and considerable controversy can exist both within and between Indigenous groups in regards to the commercial farming of wild resources. The farming of salmon on the west coast of Canada, for example, remains contentious, with some communities viewing the growing **salmon farm industry as “yet another attempt to assimilate and colonize First Nations people and their lands” (Schreiber, 2002; p. 361). While aquaculture was introduced to provide a reliable supply of salmon, fishing and eating wild fish were found to be “absolutely essential to continued cultural reproduction” (ibid.; p. 368).**

There is some evidence of commercialisation causing increased individualism and selfishness, reducing reciprocity and social interaction (Schackleton & Schackleton, 2002). Den Adel (2002) noted changes resulting from the introduction of a fruit press to villages in Namibia, where people complained that relatively wealthy households who owned many marula trees were pressing their fruits with little involvement from friends and neighbours. **Sullivan and O’Regan (2003) also pointed to the possibility of the fruit’s traditional role in ritual exchanges associated with fertility and harvesting being negatively affected by the sale of marula beer.**

By the same token, studying the horticultural production of plants in southern Africa for increased commercialisation and trade, Botha, Witowski, & Cock (2005) highlighted a criticism often levelled at plant nurseries - **that they are “western interventions that are not appropriate to the needs of the resource users” (p. 7).** However, as Botha *et al.* emphasised, **“people have been cultivating plants on their homesteads for food, medicine, shade, protection from wind, and aesthetic purposes for time immemorial” (p. 7).** They

stressed that cultures are dynamic and societies are continually incorporating new and modern methods into their existing lifestyles to help improve livelihoods and well-being.

A case that exemplifies this is the study by Shackleton *et al.* (2003) which found that domestic consumption of marula fruit and kernels substantially outweighed any commercial trade of the resource - highlighting the multiple importance of marula in non-economic terms. Shackleton *et al.* concluded that such importance helps mitigate any impingements **on domestic requirements, declaring that "respect for traditional non-monetary values is vitally important if the full benefits from monetary markets are to be reaped...if due consideration is not given to these non-financial benefits, commercialisation instead of having the desired effect of enhancing livelihoods, could have negative outcomes and make some people worse off"** (*ibid.*, 2003).

Despite having varied views regarding land and resource use and care, Australian Aboriginal people put a general emphasis on the place of humans in the landscape and their important **roles in 'Country' maintenance.** The variable nature of desert bushfood resources has meant people have had to be extremely opportunistic. Latz (1995) wrote **that "unlike better-watered areas of Australia, there does not appear to be a well-defined group of staple food resources and a traditional diet would vary considerably from season to season"** (p. 27), and explained **that many desert peoples' ceremonies are directly related to the need of ensuring** a continued supply of the plants and animals important to their traditional economy in this uncertain environment (p. 28). Ceremonies are also used to maintain social links with surrounding Aboriginal people who can be relied upon for help in times of hardship (Gould, 1980; p. 105)

Still, "little effort has been made to understand the values that Aboriginal people particularly seek to maintain in the environments for which they accept responsibility" (Whitehead *et al.*, 2006; p. 3; see also Whitehead, Woinarski, Williams *et al.*, 2000). This fact was highlighted in a recent study conducted in north Australia, **where there was an "undeniable mismatch" between the researchers' overall ranking of plant-use options and the expressed interests and preferences of community members** (see Whitehead *et al.*, 2006). The researchers admitted to a possible failure on their part to adequately encompass social and cultural criteria likely to influence overall options. The result of their ranking exercise provides a cogent example of how exterior ideals regarding what bush produce to plant and what could work may well be in direct contrast to the ideas and interests of the local people with whom they are seeking engagement. (See also case studies in Desmond & Rowland, 2000, Alexandra & Stanley, 2007).

In Central Australia, Walsh *et al.* (2006c) also spoke of the varying values inherent in **peoples' understanding of a bushfoods industry, the roles people would like to play, and the returns they would like to receive.** They stressed the multi-faceted value of the plants – emphasising the strong cultural significance of many species which have important ancestral connections to the Dreaming. Throughout the region there remains a strong local market for bush produce, including subsistence foods, beads/seed pods for art and craft, bush tobacco, and ingredients for bush medicines based on traditional family recipes. Knowledge and goods are routinely traded through cross-regional kin networks. Traditional roles of responsibility and Care for Country are usually inherited from ancestors, and for many central Australian Aboriginal peoples, there are distinct and differing roles to be played by **'land owners' and 'land managers'** – two complementary categories of rights and responsibilities to land that are inherited through **one's parents** (Strehlow, 1947). Wild harvests in this region often depend on owners and managers negotiating appropriate and respectful access to Aboriginal Land (Walsh *et al.*, 2006c). Specific Country is affiliated with specific clan groups, with custodianship dependent on kin relations and skin sub-sections (*ibid.*). These relations determine the rights and/or responsibilities people have over bush produce plants - including use rights versus rights over Dreamings associated with the species. The same plants also grow over vast areas, with many different Aboriginal peoples asserting rights over them.

Horner (in Brand & Maggiore, 1992) described the refusal of some Aboriginal peoples to commercially harvest certain seeds and fruits due to the spiritual value of such foods and **the inappropriateness that such foods "be sent away into exile" (p. 70).** Even the idea of consciously managing natural resources to maximise growth and return of raw produce may not be culturally appropriate. As the APY Land Management reported in regards to the burning of Country resulting in increased growth of *kamparapa* (Bush tomato /desert raisin, *S. Centrale*): **"That *kamparapa* grows on *nyaru* (burnt ground) is well known, but this does not necessarily lead to the (apparently obvious) conclusion that burning will promote the growth of *kamparapa*: such a conclusion would subordinate the *Tjukurpa* (Dreaming) to the power of individual action, a situation that is not just counter-intuitive to Aboriginal conceptions of the world, but subtly immoral as well "** (APY Lands Fire Strategy, APYLM, 2004; cited in McFarlene, 2005; p. 38).

Holcombe (2009) stressed the group ownership of customary knowledge and the existence of locally defined protocols in rights to land and ceremony, pointing to the need for researchers and would-be bush produce developers to respect and understand the complex social and cultural affiliations, rights and responsibilities associated with many plants – including Indigenous Cultural and Intellectual Property (ICIP). State government legislation

such as the *NT Biological Resources Act (2006)*, and reports such as *Guidelines for Indigenous Ecological Knowledge Management* (Holcombe, 2009) help in this regard; however, the complexity of affiliations means any benefit-sharing arrangements, including possible remittances (such as royalty payments from products based on Indigenous IP), need to consider exactly who will benefit, from which type of plant produce sales, what type of buyer/producer will be involved, and how will it all be implemented and monitored. As Gupta (2006; p. 2) wrote:

The discourse on indigenous knowledge is also a discourse on politics of attribution and acknowledgement of learning from those who are supposedly good subjects of study but are seldom considered lead producers of knowledge.

As the New Zealand Conservation Authority (1997) wrote, **“there is increasing pressure on the world’s natural resources from researchers and bioprospectors seeking to maximise the potentials for human and economic benefit”** (p. 5). **“Only 1,100 of the earth’s 265,000** species of plants have been thoroughly studied by scientists, but as many as 40,000 may have medicinal or undiscovered nutritional value for humans. Many are already used by **tribal healers”** (Linden, 1991; p. 55). In 1995, the estimated market value of pharmaceutical derivatives from **Indigenous peoples’ traditional medicine was US\$43 billion** worldwide (COURTS Canada, 1995). As Warshofsky (1994) declared, **“creativity in the form of ideas, innovations and inventions, has replaced gold, colonies, and raw materials as the new wealth of nations”** (p. 3). **There is now increasing concern for the protection of** intellectual, cultural, and genetic property rights.

Aubertin (2004) pointed to the genetic threat posed by intensive cultivation to local NTFP varieties, focussing on local varieties of cardamon in Laos which are being replaced with standardised, high-**yielding cultivars**. **Growth of such ‘improved’ varieties can mean risky** changes for producers who rely on coping strategies based on resource flexibility. Additionally, patents and other intellectual property rights (IPRs) designed to protect rights **to such ‘improved’ varieties can create barriers to market entry**. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the World Trade Organization includes IPRs over biological resources, and contains no provisions requiring prior informed consent and benefit sharing.

While it may be true that some patents have contributed to the growth of certain NTFP trade due to helping stimulate research and marketing investment, and promoting the realisation of product benefits (e.g., patents **held over Devil’s Claw, Wynberg 2006**), **“the patent system offers many opportunities to discount the contribution of indigenous knowledge and innovation”** (Bell, 2000; p. 15). In commodifying life, it overlooks the

intrinsic value of biodiversity for local livelihoods - including the provision of a diverse and nutritious diet, food security, medicines, building materials, and spiritual space (*ibid.*, p. 17).

In her case study of *Hoodia* spp.⁹ in South Africa, Wynberg (2006) asked a pertinent **question in regards to the highly ethnocentric nature of patenting regulations, namely: "Why does the patent system disqualify indigenous communities from patenting particular, useful characteristics of a plant known to them on the basis of 'lack of novelty', but allow western scientists to do so in the language of chemistry?" (p. 231).** Leakey *et al.* (2005) concluded that communities harvesting products and domesticating species need assistance and support to guarantee their ownership of germplasm and knowledge, and to ensure they are the beneficiaries of future commercialisation initiatives - **"this approach does require that the farmers are informed about, and understand, their rights and know how to maintain and protect these rights"** (p. 339). **This calls for the acquisition and protection of 'plant breeders rights' on the cultivars created by communities (*ibid.*).** Still, the granting of such rights inevitably prevent local communities from exchanging or commercialising reproductive material without a license, which may have an impact on livelihood benefits from NTFPs (Cunningham *et al.*, 2008).

Aboriginal traditional uses and knowledge represent a very long period of exploration and testing. Over thousands of years Aboriginal people in central Australia have found, experimented with and made appropriate use of everything in their environment that had any utility. Equally their experimentation enabled them to identify what was not useful. This immense body of knowledge, which includes information about where things could be found, the detailed ecology of plants and animals, their productivity in relation to the environment, harvest times, preparation requirements and the full range of skills needed for harvest and processing, represents what today we would term intellectual property. This body of knowledge is our main source of information in relation to the potential commercial use of bush resources. (Morse, 2005; p. 39)

Morse (2005) stressed the lack of serious consideration and recognition being given to the Traditional Knowledge at the basis of the Australian bushfoods industry. He described this **issue as "a fundamental question of values... a significant blind spot that has never really been addressed adequately by the industry as a whole"** (p. 79). As far as many industry participants are concerned, the knowledge is already out there (for example in books like *Bushfires and Bushtucker* by P. Latz, published in 1995). Still, this knowledge has played a key role in identifying plants of potential economic worth (Clarke, 2007). Aboriginal people also have custodial ownership of plants and therefore should be engaged in IP agreements (Fiona Walsh, pers. comm., June 2006).

⁹ Succulent plants indigenous to southern Africa which have a long history of use to stave off hunger and thirst by the San indigenous peoples of southern Africa (White & Sloane, 1937).

The Intellectual Property Rights structure in Australia has not afforded special legal protection for either Aboriginal knowledge or resources (Whitehead *et al.*, 2006). In contrast, international agreements, such as the UN DRIP 2007 (Articles 31 and 11) and the Convention of Biological Diversity 1992 (Article 8j), **acknowledge Indigenous peoples' rights** and the value of their knowledge, **lending substantial weight to indigenous peoples' bargaining power** in negotiating ABS agreements; however, these agreements are based on property-centric understandings of creative products, rather than being tied to the context and manner in which TEK/IK is produced and how it is shared within communities (Natural Justice, n.d.). In addition, the **protection of these rights is "subject to national legislation"** (Article 8j, CBD, 1992)¹⁰. The Conference of the Parties to the CBD adopted the *Nagoya Protocol on Access and Benefit Sharing* in October 2010, which has been described as **"a high-water mark in international jurisprudence"** (Jonas, Bavikatte, & Shrumm, 2010), establishing a number of important biocultural rights (ref. Article 5: <http://www.cbd.int/abs/text>). The Protocol clarifies the role of the State as facilitating the rights of indigenous peoples, and in doing so reaches a new level in the recognition of community rights to self-determination (Jonas *et al.*, 2010). This is significant, as **respect and support for biocultural diversity at the local level is dependent on communities' rights** being enshrined in international and national laws (Maffi & Woodley, 2010).

However, policy and practice can differ (Siegele, Roe, Giuliano, & Winer 2009), and viewing legislation based on ABS and Intellectual Property Rights (IPRs) in light of (traditional and contemporary) Australian Aboriginal societies and cultures, the following constraints become apparent:

- ABS forces communities to be defined; whereas, communities may define themselves in a number of different ways, in a number of different contexts
- IPRs are individually-based; whereas, most Aboriginal rights are socially-based, extending to the broader community, and customary knowledge is held by groups of people
- IPRs only protect information that comes from a specific historic act of invention; **however, the 'invention' of new plant varieties or ideas** in TEK is extremely difficult/virtually impossible to trace back to the original source
- IPRs solely recognise goods that are valuable for the western market; so, things like spiritual, aesthetic, cultural and customary **'value' tend to be ignored**

¹⁰ Article 8j of the Convention on Biological Diversity 1992 states: "Each contracting Party shall, as far as possible and as appropriate: subject to national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices." (source: <http://www.biodiv.org/convention/articles.asp?lg=0&a=cbd-08>)

- IPRs are transferable, usually for economic returns; while, Aboriginal cultural and intellectual property is transmitted, based on cultural qualifications
- ABS agreements and patents require legal fees and specific expertise in order to be obtained and developed
- IPRs express only entitlements, leaving out the responsibilities and obligations that a bio-cultural perspective regards as intrinsically connected to such entitlements (see also Janke, 1998)

Moving beyond the binary of open-access versus appropriation often reflected in commercially-focussed ABS negotiations, legal empowerment and endogenous development offer a new area of possibility regarding the ethical support and management of local traditions and biocultural resources. Biocultural community protocols (BCPs) offer a rights-based approach that can help communities engage with other stakeholders in accordance with locally defined priorities and procedures (*Natural Justice*, n.d.). Based on the principle of self-determination, which is reflected in international law (UN DRIP, 2007; Art. 3), this approach makes use of legally recognised rights and obligations to help articulate community norms and values to non-community stakeholders, to assist communities to engage with ABS by facilitating more constructive and collaborative management of biocultural heritage (Robinson, 2010). While it is important to note that not all international laws are legally binding, including the UN DRIP (2007), the opportunities and challenges of **'Traditional Knowledge Commons'** are being increasingly examined as an alternative model offering a way to honour the bioculturally cohesive nature of TK (Abrell, 2009).

In northern Australia, Whitehead *et al.* (2006) reported extensive queries from Aboriginal groups in regards to measures to ensure more equitable involvement and benefits from industry involvement – including intellectual property rights, certification of goods, cooperative approaches to marketing, and permit use to promote sustainability. Their findings also highlighted various constraints to future enterprise development due to present legislation often aimed at preventing access to native species, with no consideration given to customary use and/or other novel approaches to resource use. Ethnocentric epistemologies informing current legislation, specifically the *Plant Breeder's Rights Act 1994*, whereby support is geared towards large corporations with the scientific and legal expertise to take advantage of it, are seen as a disincentive for Indigenous Australians to participate in bush produce industries. In contrast, Whitehead *et al.* (*ibid.*) advocated locally relevant solutions to help ensure culturally appropriate commercial viability.

While there is evidence from northern Australia of private organisations and the state actively avoiding engaging Aboriginal people in the collection and testing process of plants

for bioprospecting (Watson, 2002), the *Biological Resources Act 2006 (NT)* aims to promote equitable benefit-sharing arrangements through the recognition of the “special knowledge held by Indigenous persons” (Section 3). The Act stipulates the need for “adequate time” to ensure consultation and informed consent with “relevant people” – including the Traditional Owners for the land in areas that are Aboriginal Land (Section 28), and the development of benefit-sharing agreements “including protection for, recognition of and valuing of any Indigenous people’s knowledge to be used” (Section 29). Still, there is a need for an expansion of states’ and federal recognition of Indigenous customary laws as legitimately arising from their right to self-determination (Natural Justice, n.d.).

In response to their findings, Whitehead *et al.* (2006) warned **against the “tortuous progress”** of IP provisions through international-level organisations like WIPO (World Intellectual Property Organization) and instead stressed the benefits and protection currently offered by the marketing of connection with Aboriginal culture as a way to ensure market dependence on authentication. They wrote, “...we do not argue that efforts to achieve improved legislation and policy should cease, but rather that opportunities that genuinely link culture and product can be taken up now. Risk can be minimised by thoughtful systems of authentication; these do not need not be centralised to be effective and add value to the works” (p. 47) (note the similarities with Drahos, 2004).

Alternative approaches to Indigenous IP protection and equitable benefit sharing include (regional) trademarking and branding practices (Rimmer, 2004), Fair Trade (Spencer & Hardie, 2011) and ‘People’s Biodiversity Registers’ (PBRs) (Gadgil, 2000). An example from across the Tasman in New Zealand is *toi iho*TM. A registered trademark, designed to aid the conservation and preservation of traditional Māori arts/crafts by providing protection to producers and guarantees to consumers, the system distinguishes and promotes three types of creative process: Māori -made; mainly Māori -made; and Māori co-production in collaboration with non-Māori (see <http://www.toiho.com>). Still, such labelling initiatives must be adequately financed and look to global markets to ensure long-term sustainability (Wiseman, 2001), to build a caring consumer base sensitive to certification resulting in premium prices (Cunningham, Garnett, & Gorman, 2008).

MESO AND MICRO-LEVEL PRIORITIES, PRACTICES, AND FEARS

Concerns regarding gender-specific effects

In many cases, women are the primary harvesters, processors, and marketers of forest products (Falconer, 1990; Terry & Cunningham, 1993; Wynberg, 2006). They often use income generated from NTFP sales to pay for things like school fees, clothing, food and household goods (Wynberg, Laird, Botha *et al.*, 2002). If women are primarily responsible

for their families' nutrition, partners and producers need to ensure that the development of NTFP commercial activity does not over-ride household needs. Rather, industry **development needs to be sensitive to women's social and cultural roles, and to their** responsibilities in the informal economy (Greig, 2006).

In one case study community in Cameroon, Schreckenberg *et al.* (2002) found divisions of labour and income between men and women resulting from intense NTFP trade tended to favour women – giving them full control of any profits made through retail sale. Schreckenberg *et al.* concluded that interventions designed to help women maintain control of the marketing of such NTFPs (against competition from external traders) may be the most important way to **ensure women's incomes do not suffer from more intensive** harvesting or planting (p. 33). In particular, there is a risk of mechanised systems impacting negatively on the value of local traditional knowledge - which is often passed through generations of female producers (Greig, 2006). Indeed, although precise impacts will vary according to resource, use, and local circumstances, commercialisation may also lead to displacement of women by men (Tewari & Campbell, 1996). In a review and analysis of research conducted on NTFPs from the mid 1980s through to the year 2000, Neumann and Hirsch (2000) reported that none of the studies reviewed provided evidence of women retaining or gaining income with the introduction of new NTFP processing technologies.

Despite such findings, Neumann and Hirsch found a general interest among women in a variety of settings to become more involved in commercial NTFP production and marketing. Consequently, they pointed to the importance of institutions and/or organisations in helping **increase women's political power and mediate any negative economic and social** consequences for women due to NTFP commercialisation (p. 32). In southern Africa, for **example, women's cooperatives play a positive role in building confidence, negotiation skills,** and bargaining power of women involved in the commercialisation of marula (Shackleton *et al.*, 2003). **'Commercialisation' in this region** is predominantly based on a range of local cultural activities that are aimed at local sale of fruits and seeds; rather than an externally controlled and driven process.

Walsh *et al.* (2006a,b) are currently undertaking collaborative research with Aboriginal women commercially harvesting bush tomatoes/desert raisins and wattleseeds in the arid zone of Central Australia. They explain how wild harvest is a sustainable micro-enterprise because it is based on traditional cultural and social assets. Much of the knowledge-base for these assets is held and practised by women. At a conference on Indigenous Sustainable Economic Development in Perth (2006), Indigenous researcher Josie Douglas emphasised

the TEK and harvesting link according to season, weather, plant and Country knowledge, preparation, plant spatial distribution, planning and acting (e.g., cool burns on Country for harvest return). She asked whether with a shift to horticultural enterprises there would not be a corresponding shift of benefits (particularly away from Aboriginal women involved in commercial harvests), and subsequently stressed the need for a balance to be found between cultural value and commercial value (Douglas, Walsh, & Jones, 2006).

Gorman and Whitehead's north Australian study (2006) also highlighted the essential bias of commercial bushfood harvest activities towards women, and the commitment by women to making customary foods more available to their communities for health reasons. During a three-day workshop, in which Aboriginal participants developed some guiding principles for enterprise development involving plant use, Traditional Owners and custodians pressed for community leaders to provide cultural and operational guidance for any enterprise activities, to facilitate the inter-generational transfer of cultural and biological knowledge (p. 25).

(Such guiding principles could form the basis of a broader BCP, as previously mentioned.)

The gender bias of varying modes of Australian bush produce involvement are perhaps best exemplified in the ARRI case studies (Desmond & Rowland, 2000), where wild-harvest ventures were undertaken almost exclusively by women, and horticultural pursuits mostly by men. The exception was in one community where women were in charge of maintaining a horticultural plot until the men had time and returned from other activities and pursuits to harvest it. In the future, the women in this community planned to undertake horticultural courses to be able to take a more active and varied role in the plot (Desmond and Rowland, 2000; case study 8).

Environmental factors: climate and environmental change, sporadic resource supply, unsustainable harvest and resource depletion

Desert climates in Australia have high variability in their seasonality. Horner (in Brand & Maggiore, 1992) wrote that bush tomatoes (*Solanum centrale*) flower in response to rain and so usually have fruit in early winter, after seasonal summer rains. However, Morse (2005) described how productive years are not common, citing some eight years between times of high production in the past. He said that a congruence of favourable rains and suitable burning regimes can lead to an outstanding crop; however, suitable storage facilities are needed in this situation, which means high capital costs to maintain supply. International studies have found such high variability of annual production, leading to financial insecurity, can be a disincentive to collection (Pauls Orthner, 2006; Boffa, Yameogo, Nikiema *et. al.*, 1996).

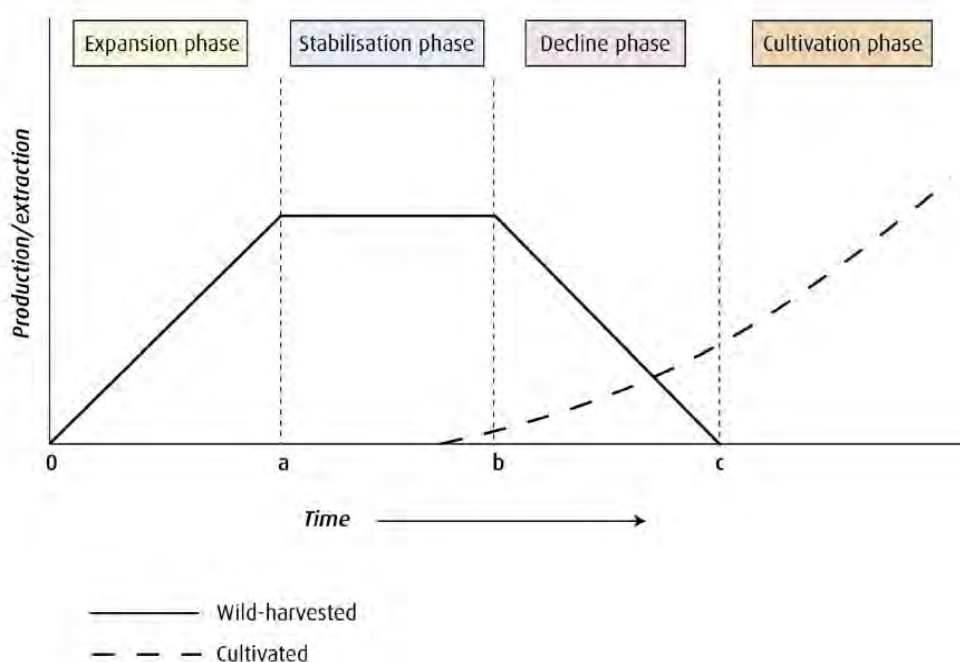
Chris Mara (CIFF) explained that, like most fresh produce, the supply chain for bushfoods is subject to climatic conditions and to overproduction or shortages. An oversupply will see prices for bushfoods crash and any shortages, like with bush tomatoes during droughts in 2008/2009, means processed bushfood products don't get produced in the volumes the market needs. Such disruptions to supply result in products being depleted and consumers quickly switch to alternatives. **"This is leading to a shift in focus from reliance on wild harvest to more planned commercial plantings and harvesting"** (Chris Mara, pers. comm., July 2009).

In 1992, Brazilian agronomist Alfredo Homma applied concepts relating to the laws of market supply and demand to the development of a model showing the economic dynamics of forest product extraction in Amazonia (see **Figure 28**). Using this model he described four phases considered to characterise the **"natural progression" or development of NTFP** trade and use – expansion, stabilisation, decline, and cultivation. Commercial wild harvest increases in the expansion stage until supply meets demand and prices begin to rise in the stabilisation phase. The decline phase is usually caused by depletion of the resource base and the increased cost of harvest, leading to the gradual failure of extraction from the wild. Domestication usually begins during the stabilisation phase, as long as technology for cultivation is available, substitutes do not yet exist, and prices remain high. According to this model, there are four main factors contributing to the decline of commercial wild harvest, including: the inelastic supply of forest products; harvest rates that exceed regeneration rates; forest product domestication; and industrial substitution for the product (Neumann & Hirsch, 2000; pp. 57-58).

Homma's (1992) theory proposes that increasing commercialisation will inevitably result in over-exploitation of wild populations. On the surface, there is much evidence to support this - pointing at the dangers of resource depletion associated with a rapid rise in demand on the international market (Hanson, 1992; Clay, 1997). A combination of ill-defined land tenure, open-access to resources, and weak enforcement of regulations have been linked to over-harvesting (see Clay, 1997). However, specific ecological effects, causes of and responses to depletion remain varied.

Figure 28: Historical cycles of NTFP production and extraction.

(Source: Wynberg, 2006; adapted from Homma, 1992)



Neumann and Hirsch (2000) reviewed the empirical evidence related to this model and its underlying assumptions – (namely that supply curves are steep and that their shapes are more important in determining production dynamics than the shapes of demand curves). Through reviewing literature focussed predominantly on the tropical regions of South America, South and South-East Asia, as well as parts of Africa, Neumann and Hirsch (2000) found that a great degree of variability exists in the depletion, substitution, and domestication processes, and that market imperfections can greatly alter the phases of the model. They concluded **that “questions about the relationship between supply and demand and resource depletion cannot be answered theoretically through an ideal model of the economic dynamics of NTFPs” (p. 58). Rather, they advocated** empirical studies to demonstrate the range of ways NTFP commercialisation can unfold. Even Homma (1992) admitted **that in practice the prediction that “product substitution leads to the devalorization of the remaining stocks of the natural product” is not always valid, as the natural product is** often important to the continued development and/or replacement of the substitute (p. 29). Still, the model does provide a base framework that can be helpful in interpreting empirical findings (see Wynberg, 2006).

While Neumann and Hirsch’s (2000) literature review found a majority of field studies reported generally negative ecological impacts from commercial wild harvesting (about 66%), the researchers cautioned against drawing any general conclusions from such findings, pointing out that studies demonstrating the presence of negative impacts are far easier to design than those showing their absence (p. 102). In their review, Neumann and

Hirsch found that while rising NTFP prices could cause changes in resource quantity and quality, they would rarely cause extinction – rather, people responded to NTFP resource depletion in a range of ways, including cultivation, domestication, and geographic relocation (p. 63). Similarly, while a United Nations Environment Programme (UNEP) study conducted in Mexico and Bolivia between 2000 and 2005 found natural resource depletion to be true for 75% of the 16 value chains they investigated, it was found that as a result of initial depletion, 35% of the case studies subsequently improved their resource management techniques to develop a sustainable harvesting method (Schreckenberg, Marshall, Newton *et al.*, 2006).

Meanwhile, in Australia, studies have primarily focused on potential detrimental environmental impacts of commercial wild-harvesting – including: loss of species due to over-harvest; damage to non-target vegetation; introduction of pathogens and weeds; damage to soil and vegetation by vehicular access; and possible effects on fauna populations in the vicinity (Christensen & Beal, 1998). In 1998, Dyer listed certain rare, endangered and vulnerable species of the Australian native food industry, and pushed for more sustainable harvesting methods to be employed – specifically cultivation of plants. He listed various approaches that could be taken – including: polyculture, permaculture, organic and **monoculture**. **Although his report was entitled “Promoting Australian Native Foods for Community Change”, there was scant reference to Indigenous peoples’ involvement in the industry. Rather, his focus was on the need to “phase out” the wild-harvest as an industry, in favour of a “more sustainable” harvesting method** – this, despite no empirical evidence to date that the current level of bush food harvest is not sustainable.

Interestingly, in contrast, it appears that wild-harvesting of some species may be essential to maximising the cultural and/or nutritional value sought by consumers [e.g., wild ginseng roots preferred for their characteristic shape, symbolizing vitality and potency (Robbins, 1998) and traditional medicinal practitioners preferring the power of plants collected from the wild (Cunningham, 1994)]. Australian native foods chef and researcher, Vic Cherikoff (2000) commented on cultivation trials of the *Gubinge* or Kakadu Plum (*Terminalia ferdinandiana*), which discovered that agriculture resulted in lowering the high level of vitamin C for which the plant is so renowned. Such findings, combined with the extent of socio-cultural returns gained from bush harvests (Douglas *et al.*, 2006) point to a continuing role for wild harvested resources in bush produce enterprises. Schippmann, Leaman, and Cunningham (2006) suggested there is therefore a need to recognise and strengthen the role of local people in resource monitoring and impact assessment processes. This is happening with increasing Care for Country and ranger programs, particularly in northern Australia. In addition, Schippmann *et al.* (2006) wrote that certification standards can play a

role in assuring products meet certain standards of sustainability – including social certification (e.g., FairTrade Federation FTF) and organic certification (e.g., International Federation of Organic Agriculture Movement IFOAM).

Unequal wealth distribution; inequalities in NTFP value chains; inadequate knowledge of potential markets, and under-developed markets

In their NTFP literature review, Neumann and Hirsch (2000) found ample evidence, particularly in situations of chronic debt, to show that involvement in NTFP extraction “perpetuates rural poverty” (p. 43). While agreeing that NTFPs are extremely critical for the poor as a livelihood strategy, Neumann and Hirsch found they rarely provide the means of socio-economic advancement. Profit shares tend to increase with increased processing, resulting in greater net financial returns as products move along value chains towards consumers (*ibid.*). Dove (1994) highlighted the way in which central economic and political interests often assume control of forest resources after they have been developed for the market by local peoples. Dove pointed to a tendency for less valuable forest resources to be left to forest dwellers, while forest products of greater interest to broader society (and therefore of more monetary worth) tend to be controlled by elites. Importantly, Dove’s focus stressed the way in which the sources of impoverishment of forest dwellers are also outside the forest, based in national and international political and economic systems.

Wynberg (2006) reported raw produce harvesters of Devil’s Claw (*Harpagophytum spp.*), an African medicinal plant, in 2002 received between 0.2-1.0 percent of the value of the final product, depending on price per kilo. This compared to 68 percent of the value of the final price being captured by processors, extractors, and manufacturers (p. 92). She noted the skewed power relations between corporate organisations and local harvesters/producers - drawing attention to the multi-million dollar turnovers of such companies and the below-the-poverty-line existence of most local collectors, questioning a rather patriarchal commercialisation approach based on ‘trickle down’ benefits rather than community-based enterprise ownership. Wynberg spoke of “the path of greatest ease” (p. 73) that is taken by industry researchers and developers – i.e., taking the control out of the locals’ hands and putting it into those of the “experts”. She found high competition and secrecy between attempts to cultivate, with most attempts excluding local research and local communities, noting subsequent shifts from wild-harvest to cultivation, local livelihoods to agribusiness, and marginalised small-farmers to commercial farmers (p. 73).

In Australia, Morse (2005) described high levels of individualism and lack of trust between bush produce industry players, with a few medium to large companies and very many micro businesses “doing their own thing” (p. 78). Similarly, Bryceson (2008) found “information

hoarding” to be a serious underlying issue for the bushfoods industry and cited lack of trust across the supply chain, problems to do with payment of suppliers, lack of best practice management principles, and formal accreditation needs in relation to implementing food safety and traceability requirements as major governance issues in need of attention. There are current attempts to develop an over-arching industry strategy, policy forum, and a coherent industry voice through the Australian Native Foods Industry Ltd. (ANFIL) organisation; however, this is an association of private industry members. The question remains whether there is enough impartiality in such an organisation where everyone presumably wants the best for their own product/approach.

Again at the international level, Neumann and Hirsch (2000) reviewed the economic relationships between producers and traders, citing the common assumption in much of the NTFP literature that such relationships are generally exploitative. Their research highlighted four key conditions often conducive to exploitation: when intermediaries are also creditors to collectors; when intermediaries have a monopoly on transport; when intermediaries have a monopoly on information; and, when the intermediary adds little or no value to the product (p. 69). However, their research also highlighted the numerous risks often faced by intermediaries – including poverty, long working days, and debt. They cited studies pointing to the important functions provided by middlemen, like transport and storage, and the inherent costs. Neumann and Hirsch concluded that while exploitative relationships often occurred, **“the elimination of middlemen does not appear to be economically beneficial to producers in all cases” (p. 69), and stated that** efforts to reduce such exploitation have often been negative for the producer (p. 71). Research in Nigeria supports this, where Jagun, Heeks and Whalley (2007) pointed at the continuing importance of intermediaries in promoting understanding and communication between buyers and producers who are culturally and geographically distant – (despite advances in mobile telephony). In Central Australia, Walsh *et al.* (2006b) similarly emphasised the importance of bush harvest traders/wholesalers in bridging cultural and geographic divides.

In the ARRI study, Desmond (2000) recorded people’s concern regarding inequitable wages, with pay rates often varying among bush garden workers as a result of differentials between CDEP and non-CDEP funded positions. Research participants also spoke of limited marketing opportunities, changing project objectives, and financial difficulties in Aboriginal organisations as affecting the long-term viability of bush produce enterprises.

Many NTFPs reach a threshold of commercial value, where efforts to cultivate the species become widespread and generally switch into the hands of the larger-scale producers. Examples from the (South African) region include Rooibos tea¹¹, and increasingly Devil's Claw. (Wynberg *et al.*, 2002; p. 38)

In her study of southern African NTFP commercialisation, Wynberg (2006) found the primary **stimuli for domestication initiatives to be “the desire for increased quality control, intellectual property protection, and greater control over the supply chain”** (p. 280). This contrasts with Homma’s (1992) ‘natural progression’ model of NTFP trade and use from commercial to cultivation based primarily on a theory of resource depletion. Rather, Wynberg warned that unless concerted efforts are made to include local producers as cultivation activities increase, large-scale cultivation efforts run the risk of marginalising such producers from sustainable NTFP industry involvement, including any associated livelihood and well-being benefits. For although cultivation can offer substantial economic incentives and returns (Schippmann, Leaman & Cunningham, 2002; Ruiz-Perez, Belcher, Achdiawan *et al.*, 2004), there is also a risk that increasing commercialisation will lead to monopolisation of the resource, with trade captured by particular households, individuals or organisations.

Wynberg (2006) reported that there was negligible involvement of the original holders of knowledge about Rooibos tea in the pioneering development of tea enterprises in South Africa – due to colonial and later apartheid laws and attitudes limiting the ability of people to acquire land and create economic opportunities (p. 162). Wynberg also wrote of negative environmental impacts due to Rooibos tea production, including: reliance on a single variety and narrow genetic base which has caused problems with fungal infections; land clearances of biologically diverse ecosystems in order to plant monocultures; widespread pesticide and herbicide use; and unsustainable wild harvests due to harvesting pressures resulting from increased international market demand offering premium prices for wild produce (pp. 164-165). Homewood (2004) also documented negative environmental impacts from increased privatisation of communal rangelands in Kenya and their conversion to commercial monoculture, causing drastic land cover and wildlife declines as commercial cultivation displaces local people.

Another problem associated with increasing commercialisation is that large-scale cultivation of many NTFPs is often reported to take place outside of the region of plant origin and is developed by producers who do not participate in wild harvesting (Homma, 1992; Wynberg, 2006). Wynberg (2006) commented on how to date most cultivation initiatives in southern Africa have drawn upon foreign scientists and been located in the lands of commercial white

¹¹ “Rooibos tea is one of South Africa’s oldest and most successful indigenous plant products. The industry is based upon *Aspalathus linearis* R. Dahlgr. (Fabaceae), a leguminous plant endemic to western parts of South Africa” (Wynberg, 2006; p. 155).

farmers in South Africa or Namibia, “underscoring the involvement of rural communities in the establishment and ongoing maintenance of projects” (p. 73). Wynberg also described a high level of competition among NTFP cultivation projects in southern Africa. She reported an absence of collaboration and a lack of published information regarding the technical aspects of domestication, coupled with increasing involvement by the private sector (including pharmaceutical companies) in sponsoring and initiating cultivation projects. Relationships between harvesters, local traders, and exporters were often found to be fickle in this instance, with high levels of exploitation common among harvesters due to lack of information and poorly organised **community and institutional structures (see ‘the corporate model’ in Wynberg, 2006; Ch. 3)**. In contrast, in areas where cultivation did proceed near areas of extraction, Homma (1992) reported the domestication process supported wild harvest activities. However, this was only for a short period, with a tendency for product prices to decline as a result of increasing domestication, exacerbating what Homma regarded as the “inevitable decline” of commercial wild harvest (p. 29).

In terms of analysing community-based cultivation initiatives, Botha, Witkowski, and Cock (2005; 2006) provided a synopsis of the experience of developing ‘outreach nurseries’ in South Africa. These are nurseries that are not centrally managed by an implementing agency, but rather are developed with local stakeholders to improve the livelihoods of community members through natural resource use. Botha *et al.* (2006) reported that there have been many negative experiences associated with such nurseries, and many initiatives are struggling to survive or have failed (p. 734). Identified causes of difficulties or failure were many and varied, ranging from climate or weather conditions and biophysical problems such as lack of water, to lack of customer base, distance from market and lack of transportation. Insecure land tenure and unfavourable government policies made progress difficult and often meant inadequate timeframes were set for meeting objectives. Poor service delivery and lack of continuity from stakeholders led to a lack of interest from many community members, leading to loss of key people and labour shortages. Differing objectives between institutions and project participants were also cited as a major cause of project failure.

In South Australia, the Department of Primary Industries and Resources of South Australia advocated the selection of ‘best bet’ bushfood crops with identified potential for commercial cultivation which have been based on the following core characteristics (PIRSA, 2006):

- o good taste
- o ease of harvest, handling, transport and storage
- o ease of process
- o an existing, or likely potential, market demand
- o relative ease of propagation
- o likely agronomy is reasonably well-understood

But, how does this compare with an Indigenous understanding of “best bet” crops? – i.e., the native foods that Aboriginal people would like to increase production of? RIRDC reports claim that cultivation of native foods is also aimed at assisting Aboriginal communities to develop greater economic independence by using native foods “which are a part of Aboriginal culture” (Ryder & Latham, 2005; p. vii). However, ‘culture’ and ‘horticulture’ are not the same. Are Aboriginal people really interested in developing a horticulturally-based industry around their non-horticulturally-based culture? Rarely do we find these sorts of questions answered in the extant literature. Notable exceptions include the ARRI study (Desmond, 2000; Desmond & Rowland, 2000) that reported that although interest may exist, contextual factors often inhibit enterprise development, including limited access to land and bio-climatic conditions (p. 49).

Clearly, as international experience shows, cultivation needs much more than just market demand to offer a sustainable livelihoods strategy to local people. Rather, it requires a sweep of conducive contextual variables, including: tenure security “so that investments in planting and managing long-lived species can be recouped” (Belcher and Kusters, 2004; p. 9); on-going education and technical support for participants; adequate and appropriate physical infrastructure; and perhaps most importantly interest and motivation from the people involved.

In northern Australia, Whitehead *et al.* (2006) found lack of information relating to potential demand and price, as well as the elasticity of price with variation in supply and demand presented a significant constraint to communities thinking about investing financial and social assets in bush produce enterprises. They recommended continued government support during enterprise development, to help overcome the “tyranny of distance” and the difficulties of remote locations. Their study indicated that financial returns may be too low to support more than marginal operations - given cost disadvantages (handling and transport) of operating from such locations. This was also found in the ARRI case studies (Desmond & Rowland, 2000), with under-developed markets also hampering success (ref. case study 5: Ceduna emu farm project). Encouragingly, more recently there has been some evidence of increasing legal recognition and protection of bush harvesters’ rights. Wholesaler/ merchant laws introduced in July 2007 stipulated there are to be no split payments (i.e., some money now, some later, at on-sell of produce). However, more still needs to be done.

Differing values; differing enterprise models

While Western science conceives of fish as a resource to be managed sustainably, Bininj (Aboriginal people) view such produce and its harvest not only as a significant source of food, but also as part of a wider system of interconnected socio-political relationships and identification. (Palmer, 2004; p. 74)

Although Palmer was referring specifically to the management of fish within the Kakadu region of northern Australia, her comment is equally valid for bush produce more generally. **Head, Trigger and Mulcock (2005) have termed these differing values “diverse cultures of nature”, and they need to be realised** to ensure dialogue and action is fully cognisant and collaborative. Aboriginal researcher, Josie Douglas, also spoke of a kind of dynamic, rich entrepreneurial spirit in many remote communities that is not generally recognised from the non-Aboriginal perspective. She explained how all too often people briefly look and judge situations from the perspective of how whitefella enterprises run and operate. This ethnocentric approach effectively blinds people to what is really happening. In contrast, Douglas warned that non-Aboriginal people need to take the time to really understand the local constructs and ideas that are already in place. The risk of not doing so is broad-scale disengagement (pers. comm., Oct. 2008).

Encouragingly, Alexandra and Stanley (2007) recently highlighted the need for targeted research and development to help inform the alternative multi-enterprise models that already exist in many Aboriginal communities. They pointed at the need for sustained funding, capacity building and mentoring, robust commercial structures, and sound business models in the quest for sustainable bush produce enterprises that support integrated community development and better understand Aboriginal enterprise models that are usually based on small-scale, diverse, labour-intensive production.

A unique and innovative example of an employment and enterprise venture developed to recognise, respect, and work with local cultural values and talent comes from the Aboriginal art world. *Better World Arts* was established by Carolyn Wilson in the mid 1990s as a cross-cultural project aimed at **“celebrating, promoting, and sustaining the skills of artists and artisans from Australia and across the globe”** (*Better World Arts*, n.d.). The project initiated links between Aboriginal artists and artisans in India, whereby Aboriginal fine art designs have been applied by Kashmiri artisans to make rugs, cushions, and ornamental lacquer boxes. Wilson spoke of supporting local communities in both regions in a culturally and economically sustainable way by recognising and bringing together their ‘diversity of talents’. For example, rather than imposing an externally-based enterprise construct on Aboriginal people and their communities, Wilson focussed on wedding the manufacturing tradition of the Kashmiri people with the more spontaneous, seasonally-based culture of Aboriginal Australia. A royalty-based system determined by design usage means the Aboriginal artists receive both immediate payment for their designs then on-going financial returns for their work. Meanwhile, produce supply is guaranteed through the commissioning of products sporting the designs from the Kashmiri artisans.

In this way, Wilson explained how variations in production rates and amounts can be accommodated and yet demand is still met. The feedback she has received from Aboriginal people involved in the project has been very positive – including, increased self-esteem and increased artist profiles. The main limitation now remains the low prices on end products, due to the large range of competing products and consumer lack of understanding regarding the true cultural and artistic value of the completed works (pers. comm., Sept. 2008).

The success of Aboriginal art has depended on value creation processes that are both internal and external to Aboriginal society. ... Add value (to the industry) by acknowledging the strength of Indigenous art as an indigenous cultural activity and try and build on it. ... Use the arts industry as a model for other kinds of industry.
(Morphy, 2006)

The Aboriginal Art industry is seen by some as offering a likely template for the bush produce industry development. Developing from a cottage industry with sporadic income, to become a key driver in Central Australian business, it provides some important learnings for the burgeoning development of the bush produce industries. The Aboriginal Arts movement took 40 years to develop into a form that the government then acknowledged in terms of its Aboriginal ownership. It began in 1934 with Rex Batterbee teaching Albert Namatjira, but it was not until 1972 that Geoffrey Barton was supported by the government in his work to **develop recognition of this emerging art form. In reading Batterbee's old diary entries, Gayle (Batterbee's daughter) and Mike Quarmby developed a** process of engagement with bushfoods that they thought had parallels with the art industry. In developing *Outback Pride*, they initially thought the bushfoods industry would develop more swiftly than the arts movement, as a result of prior learnings. However, they now feel a lack of consistent support from government is holding progress back. They describe art as an economic tool driving Aboriginal rights back in the 1960s and ask whether there are not parallels between the role of arts officers and a need for bushtucker officers. Arts officers play an important role in mediating between two domains of value creation – the Indigenous sphere and the outside market. In regards bushfoods, it is the wholesaler of bush harvested produce who takes on this role. There is a need to recognise the multi-sided, inter-cultural nature of such jobs/positions and their importance to the overall quality of production and local livelihood returns.

Another aspect of the art industry worth researching and perhaps replicating in the broader bush produce industries is the role of professional associations in representing artists. In Central Australia, *Desart* is a representative body for artists in community-owned art centres, representing 42 art centres, 3000 artists, and turning over around \$12 million/year

(Oster, 2006). *Desart* provides professional development, IT resources, industry and market development, and advocacy, and is currently involved in the development of a national regulation process for art centres to help ensure a fair and equitable industry prevails. Still, there are significant differences between the art and bush produce industries that would need to be considered. These include issues of explicit customary rights to paint certain Dreamings versus the complexity of rights and responsibilities regarding the care and harvesting of plants (Walsh *et al.*, 2006a,b,c), in addition to varying infrastructure needs.

Fisher (2006) identified four key factors crucial to successful livelihoods development based on his work with an NGO in India: 1. confidence; 2. motivation; 3. family support; and 4. courage. The development of these factors requires integration of Indigenous values of **community and reinforcement of people's identities (Morgan, 2006)**. **Māori scholar, Kepa Morgan, speaks of "the historic deconstruction of people" being antithetical to long-term sustainability**; rather, he advocates the need to respect and work with Indigenous understandings. When speaking of the SL approach to development for instance, Morgan suggested looking for a local image that perhaps encapsulates the livelihoods concept (unpacked) – **e.g., a traditional Māori house used to present interconnected elements of Māori livelihoods (Morgan, 2006)**.

On-going traditional use of NTFPs needs to be respected and supported where there is a risk that commercial activities may negatively impact on such traditional household use. Many NTFPs are primarily harvested for subsistence needs, with only surplus yields sold outside the immediate household (see Shackleton *et al.*, 2003; Neumann & Hirsch, 2000). If demand increases, there is often a risk that household needs may suffer (see Nguyen Thi Yen *et al.*, 1994). For raw produce that is processed in several different ways to produce a range of products, household needs may be easier met. For example, in the case of the southern African marula tree, commercial production of oil from fruit kernels allows for the fruit to remain in households for consumption, beer/wine production and local trade, thus minimising any detrimental effects due to commoditisation to broader livelihood assets and well-being (see Wynberg, 2006). However, introduced technology (such as fruit presses) can threaten the commercial/subsistence balance. Organisational and/or political support may be needed to ensure the well-being and livelihoods benefits from TEK are on-going.

Entrepreneurs and intermediaries can help bridge information gaps, identify new market niches, provide training and information to ensure product quality, help gain physical access to markets, and advance capital to ensure consistent product supply (Schreckenberg *et al.*, 2006). In this way, entrepreneurs can be key to spreading success throughout value chains, particularly where markets and consumers are physically distant from collectors (Te Velde,

Rushton, Schreckenberg *et al.*, 2006), and particularly during the early stages of producer organisational development (Wynberg, 2006). Wynberg (2006) found that once established, organisational capacity and confidence were generally better utilised in a more direct trading relationship (p. 194). Still, she also admitted to direct trade models involving greater risk, and advised the development of a diversified client base to help mitigate this.

4.4 Strategies to mitigate risk and vulnerabilities, to build on strengths and improve local benefits of NTFP commercialisation

...it is inevitable that commercialisation will influence and possibly change the way in which a resource is used and perceived, and trade-offs are inevitable in the real world. (However) the challenge is to find a balance between providing such options and maintaining traditional systems of resource use, local culture and social cohesion.
(Shackleton *et al.*, 2002; p. 46).

Through this extensive review we have seen a large range of livelihoods benefits to come from the commercialisation of non-timber forest products, but we have also seen several risks and issues associated with such commercialisation (ref. **Table 3**).

Table 3: An overview of some of the benefits and risks associated with NTFP commercialisation, as discussed in the literature.

BENEFITS	RISKS
Health, food security, nutritional benefits	Less local subsistence use of produce
Education, income and employment	Ignorance of local ways of knowing and doing; unequal wealth distribution and value-chain inequity
Promotion and support of local culture	Conflict between traditional and ceremonial use of produce, and increasing commercialisation
Incentive to plant and protect species	Unsustainable harvest and resource depletion
Local infrastructure development and improvement	Land degradation and local food security risks due to large scale monoculture
Cultivar development to encourage market growth	Marginalisation of local producers as production moves off-site
Empowerment of women	Displacement of women by men as mechanised systems are introduced
Use of Traditional Knowledge	Disregard for TEK, Indigenous Knowledge and innovation; patenting of 'improved' varieties

Presented as they are, in table format, the benefits and risks appear clear cut; however, this is far from the case. The question must be asked: "Benefits and risks for whom?" It then becomes apparent that many of the 'benefits' could equally be risks for TEK/IK holders. To overcome or mitigate the risks in order to gain the benefits, a combination of strategies is

needed: at all levels. These range from various activities carried out at the local, producer level, through to collaborative arrangements with individuals and organisations working at the meso and macro levels of regional, national, and international trade; from personal relationships based on trust and respect, through to the provision for IP protection under certain international laws and agreements.

What follows is a discussion on various strategies highlighted in the literature that have specifically affected the benefit:risk ratio associated with NTFP commoditisation.

4.4.1 The value of local institutions, cooperative working groups, and external partnerships

...Specialization and localized learning may lead to the development of new tailor-made institutions, which in their turn enhance local capabilities. The need for broadening the local institutional base is one of the central messages on local economic development... (Helmsing, 2003; p. 75)

Parlee *et al.* (2006) studied the interrelationships between ecosystem dynamics and local **institutions governing subsistence berry harvesting in the Gwich'in region of the Northwest Territories, Canada**. They found local knowledge generation and common property rules helped shape a resource utilisation model far more responsive to ecological change than that offered by government or other centralised **resource management agencies**. **Gwich'in** harvesting practices are an example of management strategies adapted for life in the boreal subarctic - providing flexibility in access to harvest sites according to berry abundance; promoting sharing of produce, particularly with immediate family members, Elders, and people in poor health; and encouraging trade and resource sharing among extended family groups. In a surprisingly similar way, Aboriginal people of Arid Zone Australia have adapted their subsistence bushfood harvesting techniques and rules for life in the desert.

Local institutions and ways of doing are often pivotal to maximising beneficial livelihood returns, particularly at the local level (Botha *et al.*, 2005; Neumann and Hirsch, 2000). The advice of African arid-zone agroforestry practitioners, Rinaudo and Abasse (2006), was to recognise the need for humility, to recognise and respect the wisdom of others, and to work with this wisdom through the local social organisation. Often social organisation formed from within communities – including responsibility, authority, and community representation – needs only to be encouraged and supported through facilitation of collaboration between stakeholders (*ibid.*).

Co-operative working groups can allow members to: engage in production on a larger scale, saving time and reducing individual labour burdens, enabling people (often women) to participate in technical and literacy training, providing them with valuable skills for the export market (Harsch, 2001); help share costs and benefits of collective investments in things like storage, processing, and transportation, thereby improving access to credit and better bargaining power through collective negotiation (Wynberg, 2006). However, connection from local institutions to the broader market often requires the assistance of external organisations. For example, **Wynberg's southern African study (2006) found that** partnerships between producer communities, NGOs and the private sector helped catalyse a demand and expansion in the overall market for products.

Locally-based NGO and/or private sector connection has often been found to be crucial in allowing enterprise to be owned and driven by rural producers, with collaboration usually based on long-standing social relations conducive to the valuing of local ways of knowing and being (Botha *et al.*, 2006). In contrast, cooperatives established by the state or distant development organisations have often been judged ineffective in increasing benefits to producers, due to factors like excessive bureaucratisation, inappropriate price-setting, and 'development fatigue' (Neumann and Hirsch, 2000; Hedge, Suryaprakash, Achoth *et al.*, 1996). Over the past decade, Aboriginal communities based on Cape York Peninsula in far north Queensland have entered into partnerships with corporate and philanthropic organisations. Indigenous Enterprise Partnerships, **(formally named 'Jawun' in 2010, meaning 'strong friendship' in the Kuku Yalanji language of North Queensland)**, have enabled local leaders to take action without being dependent on government authorisation and funding approval; to research, develop, and trial social innovations (Jawun, 2010).

This is not to say that the government should not play a key role in supporting and facilitating the development of local cooperatives, encouraging joint ventures and trading relationships. In this way, many problems associated with initial enterprise and market development can be potentially dealt with before they have a chance to threaten the viability of cooperatives and/or their businesses. For example, lack of external support was a **prime factor in the collapse of the Wilp Sa Maa'y Harvesting Co-operative** in northwestern British Columbia, Canada. A community-based co-operative, it was established by community members to support sustainable harvesting, processing, and marketing of wild berries and other forest products indigenous to the region, while providing supplemental income (especially to First Nations people) in an area of high unemployment. However, the coop is no longer in existence. Reasons for its demise were varied, including: distance from markets and associated transportation costs; lack of financial capital to establish the enterprise; the inability to offer people any kind of permanent employment – (i.e., berries

were picked for approximately one month/year); and lack of product variation (due to lack of funds) leading to local market saturation (Carla Burton, pers. comm., Jan. 2007). These barriers to success may have been altered if collaborative arrangements had been developed with more external partners.

Few studies to date have taken the people-centred approach ultimately required to provide a more accurate understanding of NTFP industry involvement and development. Notable exceptions include a study by Marshall *et al.* (2003) which concluded that successful NTFP commercialisation, defined as increasing all five SL capital assets, is difficult to achieve in practice. They developed a decision-support tool (DST) based on the SL approach to help predict the success of NTFP commercialisation, using socio-economic surveys at community and household level to identify 66 factors critical to overall commercialisation success (see: www.unep-wcmc.org/forest/ntfp). In response to a perceived need for more consistent terms and definitions to describe and collate information across individual case studies, Belcher and Ruiz-Perez (2001) developed a matrix of variables to help identify 'types' of cases amenable to development interventions (i.e., "good investments"), basing their conclusions on expert judgment. However, Marshall *et al.* (2003) questioned the role of 'expert judgment' in defining NTFP commercialisation 'success'. Rather, they stressed *the need to incorporate the actual opinions of community members* and suggested a greater focus on the individual processes involved in commercialisation – e.g., production, collection, processing, storage, transport, marketing, and sale – to help with identification of key factors either promoting or limiting NTFP commercialisation (see also Kusters, Belcher, Ruiz-Perez *et al.*, 2005).

In a study conducted with vegetable farmers and their preferred trading partners in the southern Philippines, 'trust' was cited as the critical determinant of a good buyer-seller relationship (Batt, Concepcion, Hualda *et al.*, 2006), with factors such as familiarity and personal relationships, communication and information exchange effecting perceptions of reliability. Indeed, many NTFP business relationships are based on family relations and ethnicity (Belcher, 1998). Van de Kop, Alam, and de Steenhuijsen Piters (2005) reported that public-private collaborations based on trust can help establish conditions conducive for supply chain development. Studying the evolution of a public-private partnership aimed at the development of a sustainable medicinal-plant chain in India, Van de Kop *et al.* (*ibid.*) found a tripartite agreement between the farmers, the company, and the research institute helped remove some of the risks involved in commercialisation. By providing farmers with an assured market, a pre-agreed price, planting material, technical support and training this collaboration eased some of the vulnerabilities impacting on this livelihood strategy (see also Lawrence, 2007).

Identifying social institutions based on trust and reciprocity, and agreed norms and rules for behaviour, Pretty and Ward (2001) stressed the role of external agents in encouraging intra and inter-group connections and networks to facilitate sustainable and equitable solutions to natural resource management. In particular, they emphasised the changing nature of groups over time – identifying three key stages that typify the evolution of social and human capital manifested within them. According to their understandings, group dynamics generally change from a dependency on external solutions and facilitators, and an inherent fear of change, through a realisation of new emerging capabilities as trust grows and information flow increases, to a stage of maturity where interdependency encourages new ways of thinking that help shape new realities (p. 219). Based on this analysis, Pretty and Ward (2001) pointed at the importance of helping groups form and mature to ensure on-going benefits to livelihoods and natural environments, and therefore highlighted the need for long-term project support from external facilitators, including government, NGOs, and/or voluntary services.

4.4.2 The involvement of agreements and protocols that encourage fair and equitable ABS

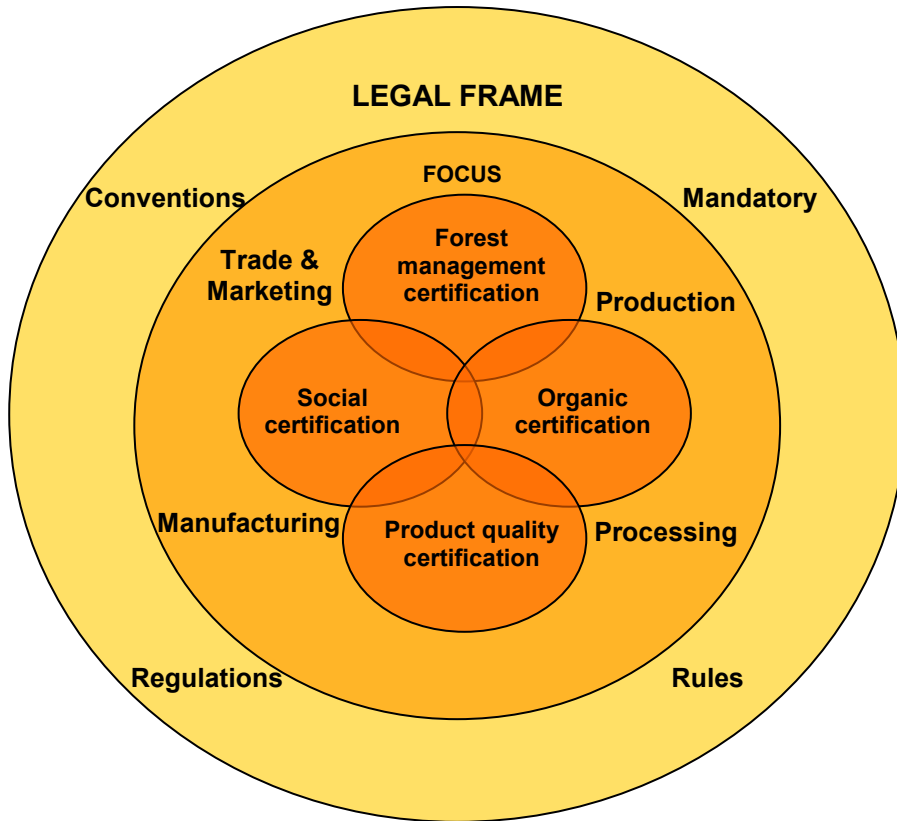
Playing a brokerage/mentoring role, trade associations can help facilitate and support stable trading relationships, offer business and technical advice, and assist members to attain Fair Trade and Organic certification – which can help producers receive higher, more stable prices. *ApiTrade Africa*, for example, is a newly formed association for African honey traders **created “to promote African honey widely, break down barriers hindering access to global markets - (including what they experience as somewhat inflexible entry standards to Fairtrade certification – see below) - and ultimately unlock the potential of the apiculture industry for the good of poor people in Africa” (Bees for Development, 2006; p. 5).**

Innovative approaches adopted towards IP protection have also involved partnerships between trading associations with developmental goals and private sector investment in product, market, and supply chain research and development. In 2005, *PhytoTrade Africa* partnered with French cosmetic company *Aldivia* to launch *Maruline* [®], **the world’s first** patented active botanical ingredient developed through scientific collaboration between resource users and a specialised research and development company (Aldivia & Phytotrade Africa, 2005). Co-ownership of patents offers potential for developing ways in which TEK/IK may be better protected, and IIPRs recognised and upheld (Wynberg, 2006).

Certification is defined by the International Organization for Standardization as a procedure by which assurance is given that a product, process, or service is in conformity with certain

standards (ISO/IEC, 1996). Types of certification relevant for the use of and trade in NTFPs can focus on forest management, social (fair and ethical) trade, organic certification, and product quality (Walter, Cole, Kathe *et al.*, 2003) (see **Figure 29**).

Figure 29: Overview of relevant certification schemes in the field of NTFPs. (Walter, 2006)



Certification and intellectual property rights (IPRs) can play both a potentially positive and negative role in protecting the interests of primary producers. Fair Trade, for example, is a conformity assessment program, encompassing verification, certification, and accreditation of a product or service which meets specified requirements, such as those aimed at achieving better prices, alongside decent working conditions, sustainability at a local level, and fair terms of trade for workers in developing countries (FTA, 2010). This system has opened up trade opportunities in difficult market environments (e.g., local honey production and trade – *Bees for Development*, 2006). Walter *et al.* (2003) found certification led to higher prices for producers of brazil nuts (between 15-35% higher compared to the price paid for non-certified products) and that certification promoted the establishment of a functioning monitoring system. They reported possible additional benefits of improved tenure rights and local empowerment, however adding that any environmental impacts of certification would depend very much on the nature of the resource used (see also Forest Stewardship Council (FSC) standards and policies, 2001).

Walter *et al.* (*ibid.*) also investigated the certification of devil's claw and found that although organic certification caused a price increase of 150% for producers, a proposal from **Germany (the main importer of devil's claw) in the year 2000 to register the medicinal NTFP** on the endangered species list of CITES could have impacted negatively on the livelihoods of the poorest harvesters. As a **document prepared by the Devil's Claw Range State Working Group (2004)** stated, "...the formal listing criteria make no provision for the consideration of **livelihood issues**" (p. 4). Unfortunately, commercial bilateral biodiversity transactions often regard biodiversity as merely a marketable commodity, ignoring and potentially undermining the crucial role that it plays in sustaining local livelihood systems (Bell, 2000; Wynberg, 2006). Similarly, Plant Breeders Rights, copyright, and patents aimed at rewarding investments in innovation can prevent local communities from using material that has been **'improved' by commercial breeders** (Wynberg *et al.*, 2002), and trademark registration can also threaten small producers and industry development by blocking access to certain **markets (e.g., 1994 registration of the name 'rooibos' by an American company** – cited in Wynberg, 2006; p. 199). Thus, systems increasingly need to be developed to protect community-based cultivars that do not involve monopoly rights (Wynberg *et al.*, 2002).

Many developing countries are concerned that certification will reduce market place access for their producers because certification does not come cheaply and may need larger domestic and international markets to ensure benefits outweigh costs (Wynberg, 2006). To realise positive effects, communities therefore need substantial support, both financial and technical, to help counter limited markets and low volumes of much Fairtrade/Organic produce (Nel, Binns & Bek, 2007). Some local enterprises do not fit existing certifiable business standards due to their focus on buying from individuals and small informal groups (*Bees for Development*, 2006). There may also be difficulties in establishing a monitoring system due to the dispersion of collectors (Walter *et al.*, 2003). However, as consumers become more discerning about the choices they make, preferring ethical products that give the environment and people a better deal, certification makes increasingly good business sense to all involved in NTFP market development.

Substantial opportunities do exist to add value through the use of intellectual property tools such as geographical indicators and/or trademarks¹². As Wynberg (2006) wrote, words,

¹² Geographical indications are defined under the Trade-Related Intellectual Property Rights (TRIPs) Agreement as "indications which identify a good as originating in the territory of a [World Trade Organisation (WTO)] member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographic origin" (TRIPs Agreement, 1994; Article 22.1). A trademark is "a form of intellectual property right that protects a distinctive symbol, design, word, or series of words, typically placed on a product label or advertisement of a firm that owns the right to use the mark. Trademarks serve as marketing tools that highlight a producer's claim to authentic or distinctive products or services" (Downes & Laird, 1999; p. 13).

phrases, symbols, and iconic emblems that point to the geographic origin of produce may offer a suitable form of protection for species with long histories of traditional use and management, **because “unlike other forms of intellectual property rights, they protect communal, shared knowledge and practices, and knowledge remains in the public domain”** (p. 152). Such indications also suit the emphasis Indigenous and local communities typically place on the inter-connectedness of culture, ancestral lands, and resources (Downes & Laird, 1999). Still, Drahos (2004) warned against concentrating solely on this one form of IP, emphasising the need to understand the connections between TEK/IK and labelling in the context of certification more broadly, to avoid potentially divisive effects of geographical indicators.

Locally situated, decentralised **initiatives are increasingly framed as “counter movements** that challenge the control of corporations and other national and global institutions... affirming a shared political agenda to create .. systems that are eminently sustainable, economically viable, **and socially just”** (Allen, Fitzsimmons, Goodman *et al.*, 2003). In Australia, a scoping study completed in early 2011 by the RIRDC (Spencer & Hardie, 2011) found that a labelling and certification program with the potential to be part of the international fair trade system could provide an opportunity to address social justice issues based on the recognition of Indigenous Intellectual Property/heritage rights (Janke, 1998). Through allowing Aboriginal people the opportunity to define areas of economic activity consistent with their culture and traditions, a voluntary certification system could help rebuild self-esteem, confidence and connection to Country (Drahos, 2004). Although certification is not a substitute for the full recognition of Aboriginal rights (Collier, Parfitt & Woollard, 2002), there is hope that a unique Australian approach to IP law, a local model (Palombi, 2008), may help restore trust between Indigenous and non-Indigenous Australians and improve ABS arrangements. As previously mentioned, the role of BCPs as community-based tools are currently being researched for their potential role in facilitating the interface between communities and users of TEK/IK, to promote more equitable, culturally safe ABS models (Natural Justice, n.d.; Bavikatte, Jonas, and von Braun, 2009). In Australia, a new innovative approach to IP law is needed to recognise the intangible and communal aspects of Indigenous Intellectual Property.

In addition to formal certification systems, diversification in species used, products produced, markets traded, and players involved are important strategies to minimise risks and increase absolute incomes (Shackleton *et al.*, 2003). Local buying stations help people cope with distance-related issues of fresh produce delivery (e.g., *Northern Lights Foods* in Canada buy wild-harvested mushrooms from the expansive northern boreal forests) and virtual retailers help to market products to a distant clientele. Still, producers need to be

kept informed of market opportunities and trends through effective information channels based on networks of people. Non-Governmental Organisations (NGOs) have been found to be very helpful with information dissemination, local value-adding activities, and marketing assistance, as well as facilitation of agreements with alternative trade organisations - to help bring cooperatives into the global arena (ref. various case studies in Wynberg, 2006; Nel, Binns & Bek, 2007).

In her case study of Rooibos tea commercialisation, Wynberg (2006) found local value-adding through packaging resulted in a value to the producing nation, South Africa, of up to 43 percent of the retail price (p. 191). In comparison, she stated **that “up to 93 percent of the final retail price is captured by foreign players in cases where value-adding occurs outside of South Africa, by fair trade and conventional players alike” (pp. 191-192).**

However, Wynberg (*ibid.*) warned that while locally-based value-adding can help increase financial returns for those engaged in collecting and selling NTFPs, when monetary return is calculated on the basis of time and effort required, the additional income does not necessarily earn greater profits than the trade of raw produce (p. 149). Quantity and quality issues relating to exported produce mean on-site value-adding may contain too much risk for local producers (see du Plessis, Lombard & den Adel, 2002). Additionally, seasonality of harvest and production, short shelf-life of value-added products, and an increase in the number of people entering the trade were all found to be limiting factors on financial returns (see also Shackleton, 2004). Still, benefits can accrue especially at the local level for some value-added products. In southern Africa, for example, marula beer traders can earn greater income per hour at local markets than suppliers of marula fruits and kernels to other markets (Leakey *et al.*, 2005).

Domestic and regional markets are often overlooked in the rush to export goods. However, local markets often provide good opportunities for NTFP sales. The African Honey Trade Workshop held in Uganda in 2006 emphasised the advantages of selling locally – including lower marketing and transaction costs, less stringent quality criteria and certification requirements, and the greater acceptance of small volumes and erratic supplies (*Bees for Development*, 2006). The workshop also detailed some of the difficulties faced at the international level where honey buyers are increasingly looking for Fairtrade certification to increase marketability. The workshop explained how in order to comply with Fairtrade regulations, beekeepers must be organised into formal producer associations, rather than selling to traders individually, and meet considerable annual costs associated with certification. Cooperative set-ups can help in this respect, aiding community-level profit distribution (Nel, Binns & Bek, 2007).

4.4.3 Support from a conducive legislative and policy environment

While self-reliance and voluntary action should be promoted, the problems of the Third World cannot be solved at the local level. Local people do not have the resources...nor should the poor be denied the resources made available by other groups. ...It is the art of manipulating the benefits of the state that should be taught rather than the rejection of state support and the avoidance of all contact with the agencies of government. (Midgley, 1986; pp. 158-159)

The extensive involvement of the state in community participation and social development is undeniable and warrants serious attention (Midgley, 1986). Governments have access to a multitude of resources as well as the power to mobilise and redistribute them. Communities therefore ideally need to engage with the state, so consultation with local people becomes an integral part of government decision-making (*ibid.*). Local and state governments in particular can play an important facilitating role in NTFP industry development – creating a favourable business environment and infrastructure conditions (Helmsing, 2003). Helmsing (2003) emphasised the role to be played by local economic development (LED) - defined as **“a process in which partnerships between local governments, community and civic groups and the private sector are established to manage existing resources, develop new institutions and local systems through dialogue and strategic actions”** (p. 69). Still, Sullivan and O’Regan (2003) pointed to there being a number of stages involved in the creation of an enabling policy environment for NTFP commercialisation, based on first raising awareness among extension officers and in different government departments of the value of NTFPs to livelihoods.

New institutional forms combining state and local community structures have been found to improve ecological conditions (Singh, Datta, Bakshi *et al.*, 1997; Pretty and Ward, 2001). Government regulations can help promote sustainable harvests and trade through the stipulation of harvesting seasons and permit systems (Wynberg, 2006). In Canada, provincial policies exist for allocating the harvest of forest land resources, several of which relate favourably to Indigenous harvests – including licensing measures for wild rice harvesting, where hand-picking is also supported (NAFA, 2002), and crop insurance support to help ensure a more stable form of income (Pauls Orthner, 2006). In some countries, state marketing institutions have effectively eliminated the need for middlemen in an attempt to maximise economic returns to collectors and producers [e.g., the *Insect Farming and Trading Agency* (IFTA) in Papua New Guinea and the *Botswanacraft Marketing Company* in Botswana (Neumann & Hirsch, 2000)] (see also Mwakatobe & Mlingwa, 2006; Kambirigi, 2004).

Yet, as Neumann and Hirsch (2000) found, many state efforts have had negative impacts on producers, failing to either provide them a greater share of NTFP profits or to protect them from middlemen, due to high levels of bureaucratisation, inappropriate price setting, and

rent seeking by state officials (p. 71) (see also Van de Kop *et al.*, 2005). Clearly, the broader socio-cultural and historical-political environment plays a major role in determining outcomes from such intervention. Still, there are working examples of frameworks providing legal and administrative support to sustainable and tradition-based NTFP production. The International Kava Executive Council (IKEC), for example, was established in 2003. This international non-profit organisation operates in close cooperation with governments of the South Pacific to help ensure kava trade between the kava-producing South Pacific Island states and Europe delivers benefits to all stakeholders, but particularly the local kava producers and traders.

Other national-level legislation focused specifically on traditional and/or Indigenous knowledge rights has been developed in some countries, including the Philippines [refer to the *Indigenous Peoples' Rights Act (IPRA)*, 1997]. The Indian government set up NIF (National Innovation Foundation) in March 2000 in recognition of the need to provide an **"institutional window of opportunity" to grassroots innovations and Traditional Knowledge** through the Department of Science and Technology (Gupta, 2006). By institutionalising a civil society initiative aimed at network formation and knowledge documentation, (known as the *Honey Bee Network*), the government has built an effective model for blending informal and formal science that it is now recommending to other countries. Such a model has real potential to give increasing recognition to the epistemologies and ontologies that are generated internally within cultural communities, also helping affirm and progress the **fundamental importance of indigenous peoples'** right to self-determination (UNDRIP, Art. 3).

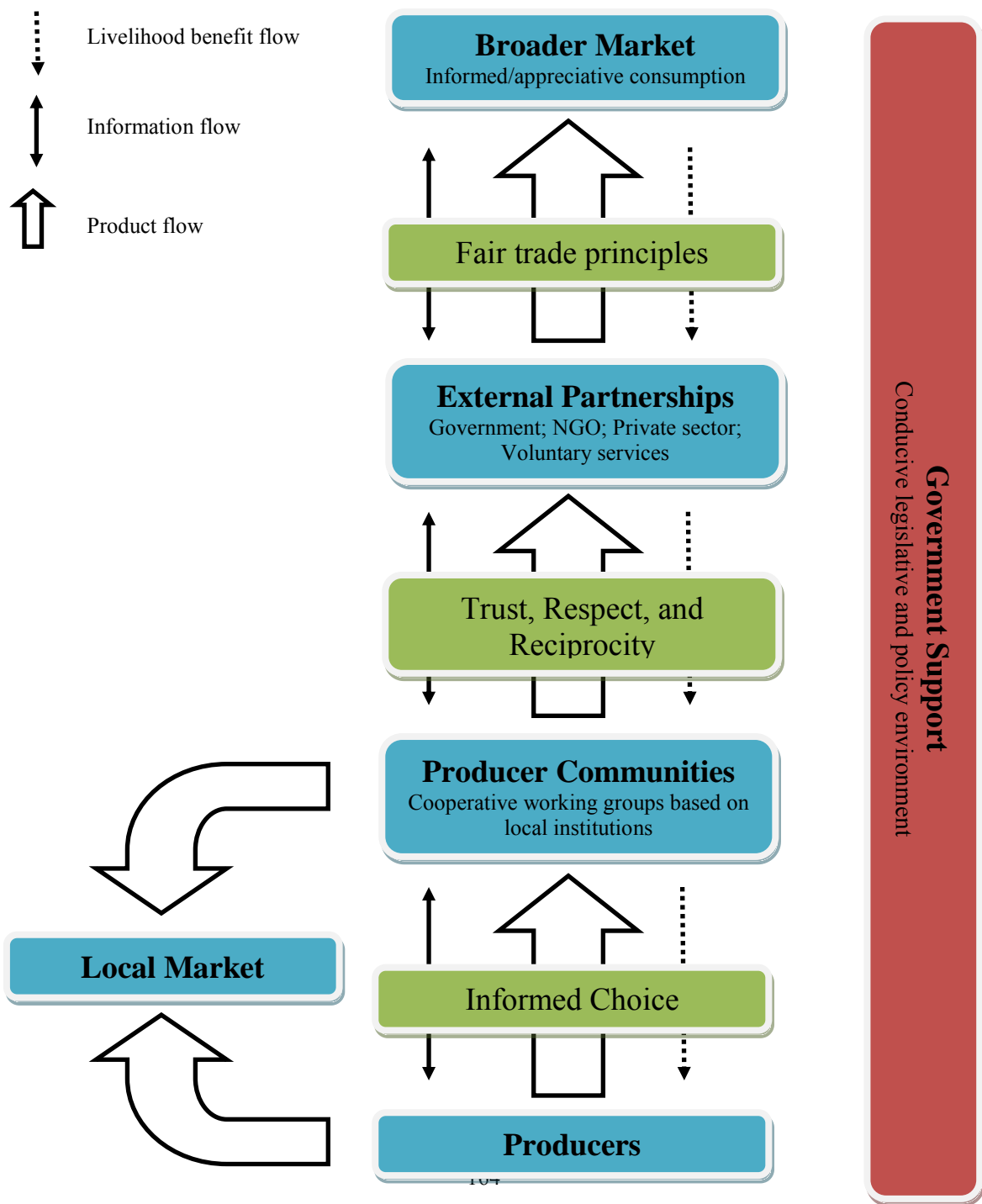
4.5 Summary

The commercial extraction and trade of bush produce has an extensive history worldwide. Harvesting of native plant and animal produce, from the wild as well as through a variety of modes of controlled and intensified growth, have formed the basis of livelihood strategies for many generations of people, particularly Indigenous peoples. Most commercial plant and animal industries have evolved from subsistence use, with surplus goods being increasingly utilised in exchange and sale. Reasons for the contemporary promotion of commercial native produce industries are varied; however, most are focused around issues relating to natural resource conservation and sustainable use, the enhancement of the national economy, and/or the promotion of beneficial livelihood returns at the local level. Complex chains and networks have evolved to link producers to consumers, to aid sustainable industry development. Power balance and benefit flows between and amongst the numerous stakeholders vary greatly and ultimately influence the rights, responsibilities, and incentives experienced by individuals, groups, and organisations. Differing modes of industry

engagement have developed to help mitigate the contextual risks and maximise the rewards for an increasing number of people interested in bush produce commercialisation – (attracted by both the potential financial rewards as well as a variety of broader livelihood and well-being benefits). Many of these approaches rely on collaborative support structures and social relationships built on trust.

Findings from the international experience of bush produce industry development provide important insights into and lessons for the current evolution of bush produce industries in Australia – particularly in regards to ways in which to mitigate risks and maximise benefit flows (see **Figure 30**).

Figure 30: Key elements to beneficial local livelihood returns, as identified in the literature.



In order to maximise benefits to local livelihoods, the following elements are key:



Potential benefits include: increased bargaining power; time/labour saving; increased access to training opportunities; costs and investments shared (incl. storage, processing, transportation needs); easier to comply with Fair Trade regulations and costs; aids community-level profit distribution; resource usage responsive to ecological change/acutely adapted to and knowledgeable about local landscape and livelihood needs; responsibility, authority, and community representation based on local social organisation and wisdom; collaboration based on long-standing social relations conducive to the valuing of local ways of knowing and being; flexibility of the system to adapt to/work with local opportunities (including seasonality).



Potential benefits include: a demand and expansion in overall market for products; links to an assured market, providing a pre-agreed price; increased access to planting materials, technical support/training; intra/inter-group connections and networks encouraged, to facilitate sustainable/equitable solutions to INCRM; increasing opportunities/development of new realities; a growing interdependence between producers and partners that promotes livelihood returns; communication/information exchange and dissemination; local value-adding activities; marketing assistance; collaboratively agreed norms and rules; increased perceptions of reliability, based on familiarity and personal relationships.



Potential benefits include: greater value-chain equity and monetary return to producers; enterprises built on an increasingly informed and growing Fair Trade industry and clientele; agreements and protocols developed, encouraging fair and equitable ABS arrangements; increasing acknowledgement, understanding, and respect for local knowledge and IK/TEK; good opportunity for local market sales involving lower marketing and transaction costs, less stringent/costly certification requirements; increased local health and nutrition.

Still, these benefits may only be realised with:

Government Support
Conducive legislative and policy environment

Potential benefits include: regulations that help promote harvests and trade through stipulation of harvesting seasons and permit systems; the creation of a favourable business environment and infrastructure conditions; increased financial capital, particularly during establishment stage; funding of product variation and development initiatives (including research) to help broaden market and overcome local market saturation; protection and support for Indigenous harvests, hand-harvesting, IK/TEK; crop insurance and subsidies to help stabilise income, again particularly during establishment stage.

While it may be impossible to predict the exact economic, socio-cultural, and environmental dynamics of any bush produce commercialisation venture, it is clear that greater awareness and support of a number of key contextual variables as they apply to local situations and circumstances can help minimise the risks of negative impacts and instead maximise the positive effects of industry involvement, particularly at the local level. Discussions with stakeholders involved at all levels can help identify these key variables; however, ultimately, government policies are needed to help redress issues impeding equitable livelihood outcomes, to support a sustainable industry that is socio-culturally just.

In the following Chapter 5, the respective field sites are introduced and the current effects of bush produce use and industry involvement on each of the livelihood assets is discussed. In addition, some of the key contextual factors influencing such involvement are presented and examined. These factors are again discussed in Chapter 6, where the cross-site matrix is used to compare and consolidate field data.

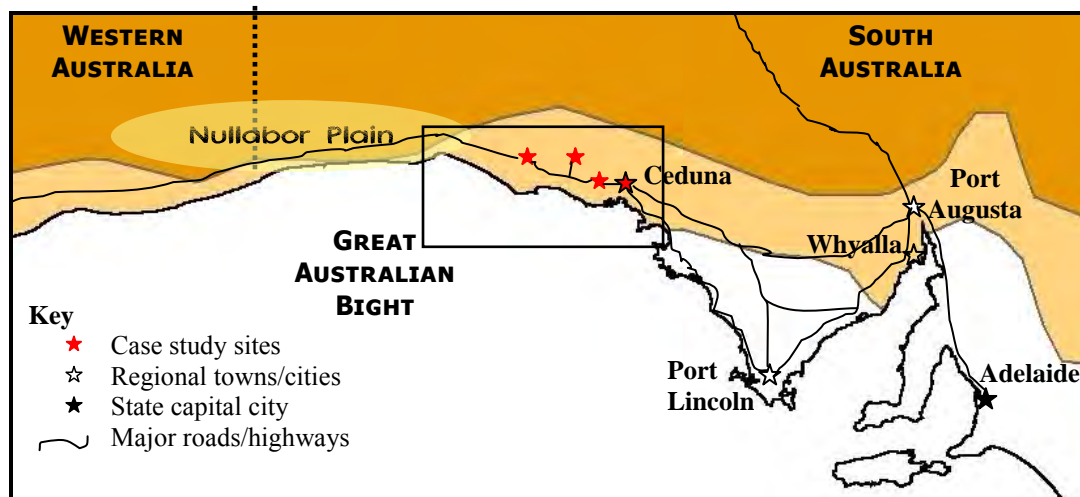
Chapter 5: THE CASE STUDIES

The following case studies provide empirical evidence of the varying types of Arid Zone bush produce industry activities in which Aboriginal people are currently involved, and the livelihood and well-being effects experienced to date. The research focuses on four geographically and ethno-linguistically diverse regions located in Central and South Australia. Within each region, there are stories told by individuals and groups of their personal experiences in creating sustainable livelihoods based on their Traditional Knowledge. These stories, seldom heard and/or documented previously, contain information that may help to develop a socio-culturally appropriate industry capable of delivering desired outcomes for all.

5.1 Stories from the Far West Coast, South Australia

5.1.1 Research setting

Figure 31a: Far West Coast, South Australia.

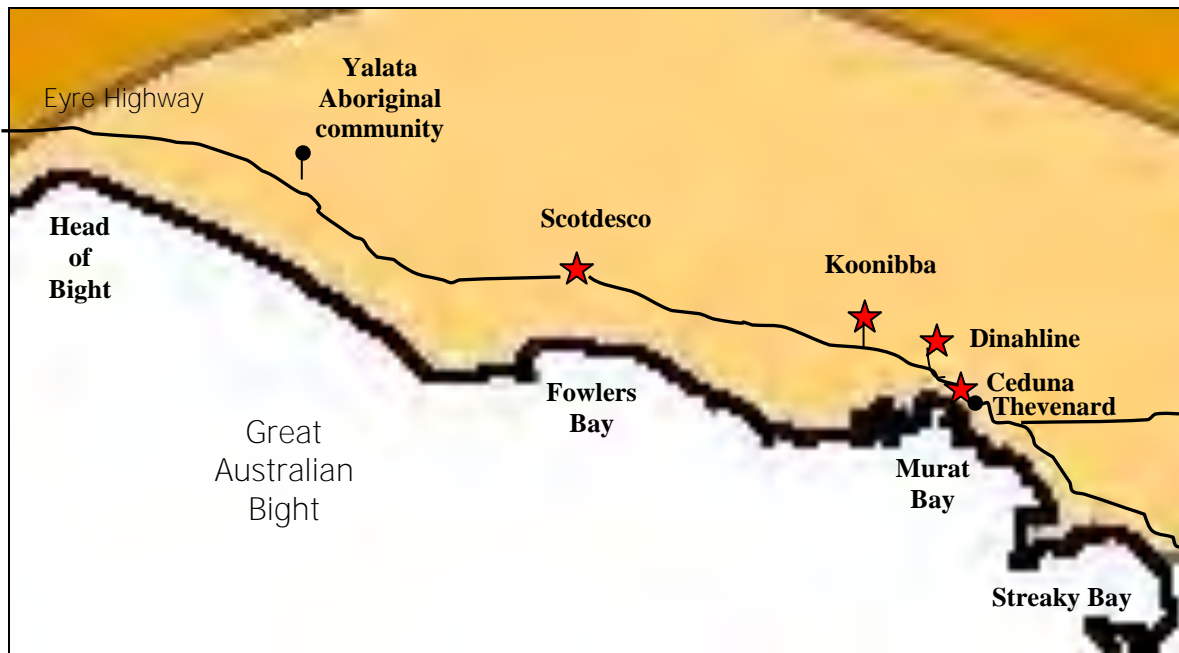


HISTORY, SOCIETY, AND CULTURE

Aboriginal people of the Far West Coast trace traditional ownership rights to lands on the Eyre Peninsula, West Coast, and the Nullarbor plain from their Wirangu, Mirning, Gogatha (Kokatha), and Pangkala (Banggarla) ancestors (Davies, 1991) (see **Figure 31a**). Dutch explorers charted some of the coastline as early as 1627 during their sea explorations. First descriptions of the interior country date from 1839 when Edward John Eyre described a landscape lacking water. Despite this, early European settlers in the area leased land to run sheep. In 1860, Yalata pastoral station was established at Fowlers Bay and extended over the following three years from the Head of the Bight to Streaky Bay. For these settlers, wild dogs, isolation, and lack of water remained problems (Faull, 1988). Aboriginal people worked as kangaroo hunters, scrub cutters, and shepherds along the Nullarbor, and from

1888 land on the West Coast began to be sub-divided and cleared for agriculture (Davies, 1991), with the ensuing division of land intruding into the ritual and economic practices of Aboriginal people living in the area.

Figure 31b: Murat Bay and surrounds.



While many Aboriginal people now live in Ceduna, other major Aboriginal communities in the region include Koonibba and Yalata, and there are a number of smaller homeland communities whose inhabitants use Ceduna as a base for services (including Scotdesco and Dinahline) (see **Figure 31b**). The Ceduna region experienced what was commonly called **the 'urban homelands' movement in the 1990s, after negotiations began for a small land-holding a few kilometres west of the town.** The movement gained momentum and by 1995, seven further family-based Aboriginal corporations owned land (small allotments close to the town, or larger holdings located up to 120 km from the town). Since 1995, several other groups have acquired land through the Indigenous Land Corporation (ILC).

Presently, between 300 and 400 people are situated on homelands near Ceduna. Over the years, the local Indigenous community has reportedly experienced extreme levels of stress due to high levels of unemployment, breakdown in the social, cultural, and economic structure of its people, and dislocation within families and the community related to a long period of welfare dependence, and many have reportedly moved away from Ceduna in an attempt to give their children better life opportunities (Schubert & Grant, 2002).

POPULATION, ECONOMY AND INFRASTRUCTURE

In 2006, the local government area was reported to have a population of 3,574 people, with the Aboriginal population comprising approximately 24% (860 people) (ABS 2006). The town of Ceduna is the main service centre for the region and surrounding towns. It is approximately 800kms north-west of Adelaide on the shores of Murat Bay on the Great Australian Bight. The main industries of the region are agriculture (wheat, barley, oats), sheep and wool, aquaculture (oyster farming), and mining. Tourism and fishing are also growth industries. The deep water port of Thevenard lies on a headland jutting into Murat Bay and handles grain, gypsum, and salt.

BUSH PRODUCE INDUSTRY DEVELOPMENT AND INVOLVEMENT IN THE REGION

In the 1880s, Aboriginal people were employed in kangaroo hunts, to track and shoot them. Skins were sent to Adelaide and then shipped to America (Faull, 1988). This was an early form of bush produce enterprise involvement. The history of arid-zone bush produce artefact making and enterprise development dates from early sales during the 1920s-30s on the Nullabor Plain. Missionaries initially encouraged *punu* making (i.e., objects made of wood) for sale on railway sidings of the trans-continental railway. At this early stage of enterprise development, attempts were made by the state government to limit sales and stifle enterprise by: 1) rescheduling the train so it arrived near Ooldea (the major point of sale) at night, and 2) publishing information in newspapers about the risk of infection that could be gained through the wood (Tom Gara, pers. comm., Dec. 2007).

To further curb local direct sales, bush produce was bought in Hermannsburg, Central Australia, and then sold to train travellers and tourists in Kalgoorlie and at other major stops. Yet, people travelling on the train still preferred to buy direct, and local people from Ooldea reportedly continued to travel north to Cook to sell to passengers, using the money to buy goods from the store, and offal from the butchers (Artlett, 1933-37). This attempt to capture and control local markets and profits was an early form of meso and macro level interference that is still played out in some of the contemporary policies influencing native plant and animal use and production.

The Aboriginal people of the Ceduna region are still very active in the use of local bush resources for both medicinal and food purposes. People seasonally travel throughout the region to collect plants and seeds for personal use, and hunt *wardu* (wombat) and *gulda* (sleepy lizard) for meals with friends and family. There is a history of local trade and kin-based sharing of medicinal rubs and home-made jams and chutneys, with a recent interest in expanding production and sale to a broader customer base. Such interest in the commercial production of value-added products led to the development of a community-

based and community-owned initiative known as **'West CAN'** – West Coast Aboriginal Enterprise Network.

The West CAN network was established by and consists of members from five Aboriginal groups/communities spread throughout the Far West Coast region, spanning approximately 100kms in distance. The network has been developing since September 2004, and has 26 members who are interested in developing their business ideas – including individuals, family groups, community Elders, and people living in and around Ceduna, as well as on surrounding homelands. It is a representative decision-making structure, whereby the members cooperate with and support each other in enterprise development initiatives based around native plants and Aboriginal knowledge (Lumbu report, 2006).

Many members are currently using their own livelihood assets and strengths to develop bush produce enterprises. Some are using their own knowledge of plants to collect seeds and grow local native plants for sale and use in landscaped gardens. Others are selling medicinal rubs and healing massages, based on knowledge passed down from their grandparents. The network was established to help improve access to the resources necessary to establish a sustainable business. A steering committee meets regularly to discuss and plan further network **development and individual member's ideas and thoughts. The network's motto is *Healthy Plants, Healthy People, Healthy Business, Healthy Food, Healthy Community*** and is also aimed at increasing the social stability of remote communities (Gibbs & Fernando, 2006).

The West CAN network was initially established on the basis of external grants and assistance from the University of South Australia and Desert Knowledge CRC. These two organisations have provided an important ongoing link to a variety of leveraging activities (including training and education, trade shows, and marketing opportunities), investments, and resources outside the community (see *Human Capital* section below). Although continuing their association with both external agencies, the network applied to become an incorporated body in order to be able to apply for funding directly and to assist with long term financial independence.

Unique amongst network members, the Dinahline homeland has a further external body of support from a private enterprise that initiated and helped develop the large bushfoods garden on-site. Mike and Gayle Quarmby have worked with Dinahline residents for six years to build a commercially-focused garden that regularly supplies raw produce to the **Quarmby's brand of value-added produce called *Outback Pride***. This external link has allowed for horticultural training and further insight into the industry, as well as guaranteeing a wholesale market for all produce picked (see *Socio-cultural and Human*

Capital sections below; for more information on the *Outback Pride* cooperative structure, see Chapter 4).

Network members who took part in the present research for this thesis reside and work in four different communities on the Far West Coast: Scotdesco, Dinahline, Koonibba, and Ceduna. These communities are briefly described below with further information detailed in the following section - whereby the livelihoods framework is used to help distinguish and analyse local livelihood capital/assets, as well as to outline key contextual factors influencing local livelihood strategies and outcomes.

Scotdesco

Scotdesco is a community of approximately 55 people living on a property located between Penong and Fowlers Bay in an area known as Bookabie, 94kms west of Ceduna. Scotdesco was incorporated in 1992 and the farm was acquired in 1994 through the ATSIC Land Acquisition Fund. Scotdesco is the business name and refers to the descendants of Jimmy and Myrtle Scott, many of whom now reside, work, and manage the farm. Scotdesco owns 25,000 acres of land, 7000 of which is arable. This is marginal cropping with wheat being **the main cereal planted. There are also approx. 3000 sheep. The property name is 'Tjilkaba' which means 'prickle' in the local Wirangu language** (Wangkawilurrara, 2004).

On the first field visit in early August, 2006, there were a small number of people involved in bushfoods horticulture. The lack of monetary return at this stage was thought to be a disincentive to participation. The lack of financial return also inhibited greater community financial input (i.e., from Scotdesco Inc.), although small contributions were made (e.g., use of car/fuel for study trip to Adelaide/Coorong). On-site CDEP management encouraged extra CDEP workers to participate in the garden when needed. At this initial stage, participants were keen to develop plants for food, essential oils, and traditional medicines, and the first financial return was anticipated to be from lavender oil distillation as there was access to a mobile distillation unit. Value-added sauces and chutneys, as well as medicinal rubs were also sold locally through the Ceduna Aboriginal Arts and Culture Centre, on local festival days, at trade fair opportunities further afield (e.g., in Adelaide), as well as to family and friends. Value was also being added to raw bush produce through services such as landscape gardening and tourism development.

Dinahline

The community is located approximately 10kms north of Ceduna. The land consists of 300 acres of scrubland and 1400 acres of arable land. There are 10 houses where 9 families reside. The CDEP program is coordinated off-site by Tjutjunaku Worka Tjuta Inc. (TWT) in Ceduna.

During the first field visit in early August, 2006, it was noted that extensive plots of various bushfood plants were supported by the Reedy Creek Nursery private enterprise (*Outback Pride* brand). This site had been in operation since 2001. The number of people involved at the time was five; however, there had been up to ten people working on the plots over the years. The current frustration was that there was no on-site CDEP, so people were allocated to the plots from a broader Ceduna-based CDEP management. People felt this had led to a lack of workers (i.e., too few for current activities). A vegetable garden supplying fruit and vegetables to residents suffered from frost just prior to my visit. However, none of the bush plants were affected as they were not fruiting at this time.

Koonibba

A strong German Lutheran community settled the Far West Coast region in the late 1800s. In 1898, at a time when Aboriginal people were increasingly competing for resources and coming into conflict with local authorities as their traditional lands were increasingly converted into agricultural blocks, the Lutheran church was granted 16,000 acres of land to establish a mission and farm around Koonibba rockhole. The mission assumed the job of distributing government rations, with Aboriginal people initially staying for short periods in the Aboriginal camp and largely maintaining their own cultural and social organisation, while undertaking farm work in exchange for rations (Brock, 1993). However, in 1913, the mission **opened a Children's Home** which removed Aboriginal children from the camp, institutionalised them, and educated them as Christians (Davies, 1991). Over the following years, children were often sent from the Home to work as indentured domestic labourers in Lutheran households, in Adelaide and further afield (Raynes, 2009)

Prior to 1922, cattle and wheat farming employed everyone on the mission, but after 1922, employment opportunities slowly diminished as cattle stations were replaced with sheep farms and then finally share-farming was introduced in 1933. Many people then had to move to get work. In 1963, the South Australian Government took over and introduced assimilationist policies and ideals (Faull, 1988). Koonibba Aboriginal Council was formed in 1965 and government control handed over to Koonibba Aboriginal Community Council (KACC) Inc. in 1976 (*ibid.*, p. 335). The Lutheran church owned the farmlands until 1988,

after which they were bought by the Aboriginal Development Commission (ADC) (which later became ATSIC) for the Koonibba Aboriginal Community Council (Davies, 1991).

Koonibba is now a community of approximately 300 people, located 42 kms north-west of Ceduna. There are 40 houses, a school, church, community hall, TAFE building, and a **women's centre, surrounded by 6,130 acres of crops** (wheat) on land leased by non-Aboriginal farmers. When I first visited in early August, 2006, five to seven men were working on a community garden plot, growing vegetables for the community. They were also beginning to grow native trees and shrubs from seeds collected from the surrounding bush. Several of the men had studied horticulture at TAFE and planned to develop a native plant and landscaping business.

Ceduna

Surveyed in 1900, Ceduna is the major town and service centre for the Far West Coast farming communities and the Aboriginal communities of Koonibba, Yalata, Oak Valley, as well as several homelands (including Scottdesco and Dinahline). The word 'Ceduna' is believed to have come from an Aboriginal word meaning "a place of rest" (Wangkawilurrara, 2004).

In early August, 2006, several individuals were developing value-added bush produce. Local medicinal plants had been processed and bottled for sale as bush rubs and oils, with one woman developing a business based on her healing abilities – linking product development with a healing massage service.

5.1.2 Livelihood assets of the Far West Coast – in relation to bush produce involvement and enterprise development: workshop and follow-up interviews

In July, 2006 the Lumbu Indigenous Community Foundation ran a one-day asset identification workshop in Ceduna with eight members of the WestCAN network. The purpose of the workshop was to identify and map the assets and strengths of the network and associated Aboriginal communities. The SL framework was used to stimulate discussion (Lumbu Report, 2006).

Building on the work of the Lumbu Foundation, and wishing to gain a more in-depth insight into current effects of bush produce industry involvement on such individual and community assets, I began talks with the network chairperson about the possibility of running another workshop. Together we decided on a two-week period at the end of September/early October 2007, in which I would be able to conduct individual interviews and we could coordinate and facilitate a two-day workshop towards the end of my stay.

The following section details the forms of livelihood capital/assets that were identified by network members during the research workshop, as well as comments made during one-on-one interviews conducted over the two-week period. The focus was on the current effects of industry involvement on identified livelihood capital and desired future effects of involvement, as well as any frustrations, constraints, or worries in regards to industry development and engagement, and possible solutions to such concerns.

A sample of the workshop outcomes are presented in matrix format in **Appendix 5**, detailing each type of livelihood capital as participants recorded their ideas and views on the day, verbatim. What follows below is a discussion of major points and observations made during the workshop, complemented by comments made in individual interviews – both with local network members as well as key informants involved in local bush produce industry development at the broader meso and macro levels. Although the assets have been analysed here as distinct entities, their essentially interdependent nature is evident in the comments made during the workshop and in interviews.

SOCIO-CULTURAL CAPITAL

Various socio-cultural assets were identified by WestCAN members during the research workshop as being important in the development of bush produce enterprises (ref. **Appendix 5**). These assets facilitate the cooperation and communication necessary for enterprise development, and are based on trust and respect.

The following discussion of workshop outcomes is organised around three types of socio-cultural capital identified by the WestCAN chairperson and research workshop facilitator and co-researcher as essential to a sustainable Aboriginal business enterprise model:

1. **Cultural support** from Elders and community-level strength and support; from traditional Law and knowledge
2. **Emotional support** from peer and family support networks (informal networks); from WestCAN membership (local organisational networks)
3. **Professional support** from external individuals, organisations, and networks influencing local livelihood assets

(Note: these subsections of socio-cultural capital are also distinguished in the other case studies.)

Cultural support¹³

Janelle: *What makes bush tucker good for you?*

Edwin: *Where it comes from – it's more healthy for us. It's got no chemicals...and it's just our feed. Come from the bush, you've always been eating from the bush.*

Janelle: *When you say 'our' feed, what do you mean?*

Edwin: *Our people. We grew up eating it.*

Janelle: *Who taught you about what plants to eat, and stuff like that?*

Edwin: *Our parents. We'll eat it every time we go for it...if they're around, if they're ripe, we'll eat them.*

Janelle: *How do you know if they're ripe?*

Edwin: *We just know.*

Kym: *We just know. Our grandfather taught us...and parents. It's been passed down from parents.*

(Interview with Edwin Carbine and Kym Mundy; Koonibba, Oct. 2007)

Network members reported the ongoing role to be played by community Elders in regards Traditional Ecological Knowledge transfer as crucial. They emphasised the importance of recognising the knowledge of the Elders as key to a socio-culturally appropriate and sustainable bush produce industry, pointing at the importance of a continuing connection to the bush, especially for young people – a connection that this industry should naturally promote. They expressed some concern that opportunities for the teaching and learning of responsibilities for the care of cultural and natural environments may be by-passed in the emphasis placed on horticultural production of plants. There was a corresponding fear that an increasing interest in the propagation of plants leaves the way open to loss of Intellectual Property:

Ruby: *I don't know. It's just... it's ours, you know? That's the food we eat, that's how we grew up, you know. Our family taught us that. And whenever we come together and we go out as a family, we eat what we can. We don't bring it back home, and then we come back home. That's what we got taught. Um...I don't agree with it (the bushfoods industry). It's just like our... That's going to be taken away from us, you know?! We grew up with that when we were little kids. You know, look at us now – we're adults. We now need to pass it down to the younger generation. Like, we don't put it in books...*

Janelle: *It's that sort of thought that you're saying about the food being something that is really personal or family-oriented, and it's that sort of thing...*

Ruby: *...that is getting exploited all over the world. Like, they could come to us, they can taste it, we'll go and show them, but to be in jars, in bottles, you know, it's different. Yeah.*

(Interview with Ruby Saunders; Ceduna, Oct. 2007)

Although not discussed in detail with community and/or network members, the common property nature of customary rights over bush resources has reportedly caused some dispute and division amongst local families involved in bush produce enterprises (Brian Cheers, pers. comm., Nov. 2007). "Who owns what plants" is a question that arises from a Western enterprise/industry framework, which is difficult to adapt to a socio-cultural

¹³ It is worth reminding readers at this point that any name used means that the person has given permission for their name to be included.

framework based on Aboriginal Law, whereby an intricate mix of communal resource use and responsibilities combines with traditional obligations, understandings, care, and respect for the environment as a whole.

At the same time, people felt that the bush produce industries have helped increase respect and recognition of Aboriginal culture by non-Aboriginal people – in particular, local people who may not have formerly realised the range and extent of skills present amongst their fellow community members. Network members were especially keen to learn more about the development and use of trademarks and logos to help identify and broadcast the particular place and peoples behind each product – to continue the traditional connection to land, culture, and people. Several members felt that along with the continuing commodification of bushfoods, there is a corresponding lack of Aboriginal control or influence over industry development, heralding a loss of ownership, identity, and knowledge. They advocated Aboriginal organisational representation at higher levels of the industry for “greater Aboriginal control of our own foods”:

Ruby: *They (Aboriginal people) should be the top of that industry. They should be up there dictating everything to people.* (Ceduna, Oct. 2007)

Janelle: *Do you see any main issues with Aboriginal peoples’ involvement in the bushfoods industry? Any frustrations? ...about the way the foods are being promoted both here and overseas?*

Peter: *They take our knowledge.*

Edwin: *That’s the only thing that...all the Aboriginal mob, they’re just the growers, you know, instead of moving them up to...*

Peter: *...the next level.*

Edwin: *Instead of being just a grower...*

Janelle: *Value-adding, or...?*

Peter: *Marketing, markets...*

Janelle: *But how to get to that next level. (For example) you said Mike (Quarmby) was open to it, but there wasn’t the interest.*

Edwin: *Yep, that’s it.*

Janelle: *Do you like the idea that bushfoods are in sauces, etc. and on the shelves of Coles, Woolworths, etc.?*

Edwin: *Yes. It’s promoting our bush tucker, our feed. Sharing it with the whitefella.* (Koonibba, Oct. 2007)

Those network members who produce and sell value-added products reported a greater sense of ownership than those people involved in the wholesale production of raw produce for value-adding off-site. There is a local market for bush products - including food, medicine, and related services such as healing massage and native plant propagation and landscaping. Many people know the ingredients from their own childhood, and there is a lot of cultural and personal pride attached to promoting and selling products locally. Elder, Joy Haynes, spoke of the importance of showing the worth of the Elders, having their role and input seen and appreciated. She spoke also of the potential nutritional and financial benefits

to be gained from bush enterprise involvement. During the local *Oysterfest* festival, an interest in and appreciation of the knowledge and skills involved was evident amongst local and international visitors (ref. *Diary entry* below)

Diary of a PhD

29.09.2007 – 30.09.2007

Oysterfest in Ceduna! The ladies set up an attractive display of traditional rubbing ointments and massages, teas, homemade chutneys, and containers of seedlings from the Koonibba nursery. There were many visitors to the stall – both locals and people from further afield; Aboriginal and non-Aboriginal. People were interested and impressed to learn more about what the ladies have been doing. A Japanese couple compared the interest shown in eating wild foods in their home country to the bushfoods of Australia, querying why many non-Aboriginal people do not seem to have a great yearning for eating the native produce of this country, like they do in Japan. Chinese and French visitors were also intrigued by the stories of bush medicine and foods – stopping by to apply some of the bush oil and to taste the local Quandong – “Yum!”

Emotional support

For most network members, family members provide an important source of encouragement and motivation. Many help in the production of bush produce and/or buy and distribute the value-added products. All network members were keen for their bush produce enterprises to be developed for future generations – to become self-sustaining and ultimately offer full or part-time employment:

Janelle: *What do your family and friends think about what you're doing?*

Ruby: *Oh, they think it's great!*

Janelle: *Do they give you support?*

Ruby: *Yes, they do. ...Yes, yes, they do! (laughs)*

Janelle: *How do they give you support?*

Ruby: *Um...they're there. They come around... you know, they're there to help me to prepare everything. They help me to get things... to help me prepare it, or help me go shopping, ... Like I said, you know, 9 to 5 here working, um... Like I did, I got them to help me for the three days that I was cooking at home.*

Janelle: *OK, so you're already passing on some of that information 'cause they're already taking part.*

Ruby: *Yep. Yeah. ...I don't know whether they'll take it on...they might.*

Janelle: *At the moment, are you thinking of that...building what you're doing for them, or is it more for you?*

Ruby: *No, it's for them. Not for me. Then it's for their kids. If I'm thinking of taking it on like a full-time (job)... that's where I'd be looking at, is family.*

Janelle: *Passing it on to family.*

Ruby: *Yep. Not for myself, but family.*

(Ceduna, Oct. 2007)

Broader community acknowledgement, interest, and support of individual enterprises were also important to network members. They put considerable emphasis on being part of a collaborative approach to local Aboriginal economic development based on the sharing of skills and the building of increased employment opportunities for youth. Enterprises that manage to bring community members together help lessen any feelings of jealousy and rivalry that may disrupt the long term sustainability of businesses. There was a hope that local bush produce enterprises may help re-establish a broader sense of community pride and spirit that some feel has tended to wane in the years since the homelands movement began. However, this requires community-level organisational support which to date has often fluctuated. To this end, people were eager to establish a local organisational network that would help provide important support structures for those seeking to develop their own business enterprises:

Edwin: *Changes at community level made me feel like giving up!* (Dinahline)

Kym: *People in the office don't fully support our work.* (Koonibba)

Glenette: *Scotdesco Inc. – they help around with implements and things that we need for the garden. They provide heaps of stuff. CDEP mob come and help. It's a community thing, you know, when things are going.* (Scotdesco) (Oct. 2007)

The members of WestCAN spoke of a strong element of trust between members that encourages peer-learning and communication. The network chairperson described the increased confidence, pride, and sense of self-worth she has witnessed in members over the two year period she has been involved. Members were increasingly coming together to work on projects, to help provide a range of expertise and to increase the size and scope of work undertaken. Landscaping contracts, for example, were tendered based on the collaboration of network members who have propagation and horticultural skills, and landscaping expertise. People enjoyed working together in groups – socialising, motivating each other:

Janelle: *Involvement in WestCAN – How has that ... What are the benefits of being involved with that network?*

Glenette: *Well, if you need any help from anybody, you can ask anyone for anything at all. When you need help, someone will know something about something and ... just working together.*

(Interview with Glenette Miller; Scotdesco, Oct, 2007)

Janelle: *The connection between Dinahline and Koonibba through the WestCAN network. How important is that?*

Edwin: *That's real important too.*

Kym: *Very important.*

Edwin: *'Cause we can help each other. It's good that we can help each other and we're going to start to help each other (i.e., through the collaboration on a potential landscaping project).*

Kym: *They (Koonibba) have the bushfoods and we have the trees. That mob can help us.* (Koonibba, Oct. 2007)

Ruby: *All I can do is talk about our region. Like, with WestCAN, as a group. Because Aboriginal people always are in a group. Family **orientated, in a group. Like, we're Wirangu people. If WestCAN can be the mother for this area – not just me saying my point, (rather) like a group. Not just young people, you have Elder people too, as a group. ...It's always family-orientated. With the bushfoods, with the bushes, with the animals, ... it's family-orientated.***

Janelle: *To have that control in some sort of way, like the network here, that has maybe more of a say?*

Ruby: *That's right, yes. Within this region. Like WestCAN is trying to bring everybody back together like a big family again. Like Poverty Flat* – that was just a big family of the community working together.*

Janelle: *So, the network seems to be a crucial element.*

Ruby: *It is for this area, because after the homelands came through, it just broke everybody up. Families were arguing with each other over stupid little things, you know "I'm better than you" kind of thing, you know, ...it's just silly!*

Janelle: *And that's the non-Aboriginal sense of individuals, and that's that entrepreneurial model that's "you take it and you go".*

Ruby: *That's right, yes.*

Janelle: *But you've seen that actually destroy something that was more cooperative.*

Ruby: *That's right, yep. And it's so sad, it is. Because everybody was together, and now everybody just went their own ways. They're all at their own communities, but they live in their own houses, you know, kind of thing... You know, they don't visit people... Not like it used to be.*

Janelle: *Sounds like what you've got up and running with this network is the beginning of something that may just pull people back together.*

Ruby: *Yes, that's right...and that's what we're hoping! That's what we're hoping to do!*
(Ceduna, Oct. 2007)

*Poverty Flat was an organic vegetable garden where around 20 people worked in two CDEP gangs. Planning and decision-making was reportedly a collaborative process involving CDEP supervisors and workers (Davies, 1991).

There was talk of the possibility of sharing information and enterprise visions with broader members of the respective communities in a forum conducive to such knowledge exchange. Elder, Joy Haynes, said "you have to share your vision to be able to keep it alive". Joy thought information would help encourage extra workers – with community role-models providing motivation from within. Jealousy is a risk factor and may affect people coming on board; trust is important in helping allay fears.

Professional support

Janelle: *The alternatives to the WestCAN network are the government business structures that you can go and try and source information from...*

Ruby: *That's right.*

Janelle: *What's different between those sorts of approaches and what you've got here with the network that you've formed yourselves?*

Ruby: *We're going to approach them (the government) (laughs)...you know, for their assistance. We're going to try, so we can go to the next level.*

Janelle: *But in this case, like you've said, you're not an individual now, ...*

Ruby: *No, we're a group.*
(Ceduna, Oct. 2007)

The trust and respect embedded in the WestCAN network helped members expand their access to wider institutions and opportunities for professional development, as well as helping lift the profile of individual enterprises to attract a broader customer base. (See the *Human Capital* section below for details of training and business skills development.) The network chairperson, in particular, was a key person in forging such links – researching ideas and opportunities often raised by individual network members, contacting external agents, then presenting information back to the group for discussion and final decision.

The network is the result of a long term commitment to provide professional support that was established on the basis of social capital. Professor Brian Cheers from the University of **South Australia's Centre for Rural Health and Community Development** described how his **prior research and work in the region had built "credibility, trust, and good relationships with people", so that when he approached the chairperson** of the local Aboriginal organisation TWT, she was willing to hear more and initiated meetings. Cheers and his Aboriginal colleague, Ian Gentle, met with the chairperson and explained how funding from the Desert Knowledge Cooperative Research Centre (DK-CRC) was available for the purpose of working with the Aboriginal people in the community to use their knowledge of native plants to develop an enterprise. Cheers recalled:

It took time for people to really understand that it was really up to them as to how they could interpret this, develop ideas. The process took about 8-9 months until people really started engaging with it – until people trusted that the project was really up to them. (Cheers, pers. comm., Nov. 2007)

Cheers and Gentle travelled out to Ceduna 2-3 days/month to initiate the interest – walking **through the town, meeting people, and 'yarning'**. The interest grew very quickly – Cheers said he was surprised at how fast it grew. He believed **the WestCAN chairperson's** enthusiasm and ability to contact people was a major factor in the swift growth in interest, **along with the connection to plants and people's motivation to get** into business. He explained:

The Network evolved through [the chairperson's] active organisation during the first year of the project. She made a conscious effort to involve people from all families and made certain to involve the Elders. The development of a network was not in the original concept – but the whole idea was for a concept to develop from the people themselves – which it evidently did! The interest in plants was bringing people together – connecting people and helping lessen age-old family-based tensions. (Cheers, pers. comm., Nov. 2007)

Cheers said that from his perspective the network structure has provided people with an environment of mutual support and confidence, which facilitates knowledge exchange, respects spiritual connection to culture and ancestors, and breeds hope. Cheers also stressed the pivotal role played by the network coordinator, explaining her importance in

terms of her role in community development, mentoring, and strategic planning. He explained how she provided an important point of connection and mediation between community people and outsiders (including researchers) (Cheers, pers. comm., Feb. 2008)

DK-CRC also provided positive encouragement to the network - through organising trade show opportunities, funding network members' **attendance at conferences**, collaborative development of IP agreements, and running several plant-based production workshops. Dr. Joan Gibbs, Plant Ecologist and Lecturer at the Centre for Natural and Built Environments, University of South Australia, was a project leader on the DK-CRC Aboriginal Enterprise Development research project. She built a professional relationship with network members over a period of three years, often taking on the role of an agent in attracting and informing potential customers of the products and services available. Gibbs ran a seed collection and wattleseed production workshop at Scotdesco. After, members became interested in the production of nitre bush (native grape) jam, and making wattleseed coffee.

Other professional support and enterprise mentoring has come from the private sector. Mike and Gayle Quarmby of Reedy Creek Nursery advocate a social enterprise approach to industry development. They developed a process which they believe affords the structural security that Aboriginal people are looking for when entering a business and developing an enterprise. They believe the independent setting up of enterprise is not possible in most places, due to a lack of finance and skills. They therefore **established 'Outback Pride' as a cooperative-style enterprise to help in this regard – "to provide a structure in which people are given choices, rather than being left to work things out for themselves"** (Quarmbys, pers. comm., Aug. 2006):

Edwin: *We put all of it up. When we first put that new garden in, Mike was here. He brought all the stuff with him, all that we needed, and he planted some of the plants for the garden, and we just went ahead and done it then.*

Janelle: *Did people have a say in how the garden would be set out?*

Edwin: *We helped him (Mike). He asked us.*

Janelle: *So, were people pretty happy when it began?*

Edwin: *Yep. Everybody was.* (Koonibba, Oct. 2007)

Working with Dinahline, the Quarmbys have helped develop one of the largest bushfood gardens in Australia. Importantly, they have earned the respect and the trust from community members based on the amount of time and effort they have put into the project for over seven years:

Janelle: *What's your relationship to Reedy Creek based on?*

Edwin: *A contract. They're good, them two. They (Mike and Gayle) have helped put our community on the map.*

Janelle: *How important is it that these people are good people?*

Edwin: *It's very important, because if they were no good, they would be ripping us off. But, they're not, they're trying to help us.* (Koonibba, Oct. 2007)

Community members are now starting to think of new ideas about how they might be able to label and market their own produce, instead of sending the raw produce off-site to be value-added elsewhere. **These new ideas are being 'fuelled'/helped by** the broader WestCAN network members currently involved in their own product development.

Despite the extensive professional support supplied to date, the Quarmbys believe the systems they currently have in place are not self-sustaining. They said that for years they have been calling for the role(s) of people at a coordinating level to be supported and financed by the (state) government; however, they said that government-based infrastructural support is severely lacking. (See the following section on *Structures and Processes* affecting industry development.)

Further comments relating to socio-cultural benefits currently experienced and supports needed to facilitate cultural, emotional and professional support, made in groups during the 2-day workshop, Ceduna Oct. 2007:

In relation to TEK intergenerational transfer, cultural maintenance and strengthening:
"Elders having knowledge about bushfoods and plants and passing it on to others by doing things together; the knowledge of 'good food' / 'bad food' - (i.e., what not to eat and what can be eaten); education of children, the passing on of wisdom and knowledge; by sharing information we are revisiting not only cultural responsibilities, but also knowledge of plants, birds, and animals; memories from childhood; people travelling to traditional country, yarning - holistic experience / learning passed on **orally.**"

In relation to family and broader community involvement:

"Supportive families (are crucial); connections through family members to broader markets; family members helping with product development and marketing."

"Opportunity for future business enterprises to leave for future generations as a way of self-supporting themselves in the future."

"People in community see what you do and it makes them think 'I'd like to do something like that' - they want to help, get involved, ask questions, and learn; teaching others (old or young) who don't know about plants and how to grow them; giving something back to community with vegetables (promoting healthy eating); getting respect, support, and acknowledgement from community; working to get others involved."

In relation to WestCAN and effective community organisation:

"Group support is really necessary. The role of the Elders is important. The enterprise network (WestCAN) provides support. ...People (are) working together, learning from each other and helping each other; the community is supportive of each others' productions/enterprises; having a network of people to call on for support when you need them is good; a barter system of help; easier ability to talk and communicate both within and outside the group/network; a new group of people to socialise with and to get to know better; trust (is key) between people in the business network."

HUMAN CAPITAL (HEALTH AND WELL-BEING)

Janelle: *How about, have you had training from your involvement with...I guess in particular with the network and perhaps some of the benefits from that? ...Some of the training things that you've been to?*

Ruby: *We've been to a few. Um, we went to uni (in Adelaide), we met the professor. The workshop at Taoundi (Aboriginal College).*

Janelle: *How have you been finding those sorts of things? Have they been helpful to your business development, to ideas??... that sort of thing...*

Ruby: *Yeah, it has. It has. It's opened my eyes. I guess it's laid back here, you don't have to rush yourself, but in Adelaide you see everything's there! Yeah, it's just opened my eyes.* (Ceduna, Oct. 2007)

Like socio-cultural capital, human capital is central to building capability. Human capital is "the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives" (DFID, 1999-2001, Section 2.3.1). Education and training, access to information, employment opportunities, and the health and well-being of people all affect the development of this asset. During the two-day workshop, participants worked as co-researchers to examine the main effects to date that the bushfoods industry has been having on such development (ref. **Appendix 5**).

Access to information, technical skills, training, and education

Janelle: *What are some of the benefits you've had from growing plants – either for food or for the nursery?*

Kym: *Training. Horticultural TAFE courses. (Kym is still completing the course)*

Peter: *Phil Landless ran the course.*

(Kym and Peter are now passing on their skills to the younger men)

Janelle: *How about training at Dinahline?*

Edwin: *We had to do different training though TAFE in Adelaide. With Nicola (Samson). Special training for bushfoods that you do over the phone. (Edwin has a certificate from this course)*

Janelle: *Have you had training provided from other sources, apart from TAFE?*

Edwin: *No. Mike just comes down and visits us every now and then.*

Janelle: *Would you like to receive any more training?*

Edwin: *I'd like them to get some other young fellas to train them how to do the cooking side of it, so we don't have to sell our produce to him (Mike). We can do it ourselves and make our own money.*

(The guys explain how they know about what to collect based on the knowledge given to them from family; but how to prepare & treat the seeds comes from knowledge from TAFE courses. They only commercially buy vegetable seeds; all other native seeds are sourced from the bush.) (Koonibba, Oct. 2007)

Four network members took advantage of horticultural training available through TAFE and have received certification for their skills. One member completed a specialised course in bushfoods horticulture, while the others completed mainstream horticultural and land management studies.

Phil Landless, horticultural lecturer at the Ceduna campus of TAFE SA, recalled some of the early interest in training. He said that prior to 2003, there was a Land Management (Aboriginal Ranger training) program, that allowed for negotiated planning. Landless explained how a student initially approached the TAFE, wanting to set up a bush tucker garden. After talking with his community about the idea, it was decided to establish a community food garden and so a garden plot was set up by Mike Quarmby at the Emu Farm in Ceduna, as well as sites out at Koonibba and Dinahline.

Landless delivered a training package to students in the region from 2003 that was designed around the Conservation and Land Management Cert. II. His work in delivering the course was focused on the nursery at Koonibba – setting it up for plants for revegetation, beautification, and direct seeding for windbreaks. Bush medicine plants were also grown there. Landless explained that women living in Koonibba decided to establish a medicinal plants garden for their own use as they felt that women from communities further afield **often took the Koonibba women's plants from the roadside off the main road as they passed** by the area on their way into Ceduna (Landless, pers. comm., Nov. 2007).

Landless spoke of the enthusiasm for revegetation which has continued with the nursery at Koonibba. However, since mid 2006 there has been no TAFE presence on-site. Despite a current waiting list of people from Koonibba interested in training, Landless said the interest in horticultural courses had been cyclic. Student numbers dwindled in the past when people moved away from the area; still, Landless told of one former student who recently moved to take up employment in the Western Australian national park service where he will utilise his horticultural skills. While courses were often delivered from Adelaide via distance education, Landless provided important on-site academic support, centred on career and study awareness. He spoke of the crucial elements of trust and respect that he had built up amongst the Aboriginal people of the region. Network members spoke highly of him and his help in training them over the years; the long-term personal contact particularly valued in gaining feedback and advice.

Scotdesco Aboriginal community member, Glenette Miller had horticultural qualifications prior to involvement in the enterprise network. She saw membership of the network and the possibility of building a bush produce enterprise as an opportunity to utilise some of the skills she had already developed. Her knowledge has allowed her to establish and propagate new plants on the Scotdesco homeland, including: saltbush; *bra* (quandong); acacia; sandalwood; lavender; as well as non-commercial citrus plants and *eramofla exfoliai* (used to make bush medicine). Information has also been sourced from the internet with the help of TAFE teachers on-site in Scotdesco community and also through the WestCAN network

chairperson, assisting in internet-based searches and networking. Towards the end of 2007, Glenette had further help and technical assistance from external volunteers who offered their horticultural skills to help with further development of infrastructure and garden set-up. Glenette explained how the volunteers were willing to take her lead on everything, respecting her skills and expertise and yet willing to share their professional knowledge when sought and/or appropriate. The presence of volunteers in the community was organised by the network chairperson and has allowed for an exchange and further development of horticultural skills in the face of a lack of more official training choices.

Volunteers also recently visited Koonibba, offering their labour and experience to further establish the community nursery. Two community members also travelled to the Central Australian Desert Park in early 2008 to gain greater insight into Arid Zone horticultural techniques. This trip was financially supported by the DK-CRC in its attempts to support the development of sustainable environments and communities in arid regions. Ceduna-based network members and others developing value-added products have also received assistance through DK-CRC to attend workshops for soap-making, Intellectual Property concerns, and conferences on active research methodologies. Comments from network members who have participated in such training and information sessions have been very positive – based around the expanding of ideas and opportunities (ref. interview quote at the beginning of this *Human Capital* section).

Dinahline has received additional technical assistance through their association with the Quarmbys. Community members are able to contact Mike and Gayle at any time with queries regarding the plants. If, for example, a particular bug has been noticed on the plants, community members are encouraged to contact the Quarmbys for identification and possible organic-style plant treatments. **In the Quarmbys' experience, the TAFE's** involvement has provided a focussing mechanism that encourages people to come back and obtain educational qualifications. Without such incentive, the Quarmbys have found that there is often a higher turnover of people involved. Still, as is the case with Dinahline, the number of people involved still fluctuates, as people move in and out of the region.

(The garden is about a year old and Glenette has been developing her ideas for about two years)

Janelle: *In that time, how do you feel things have been progressing?*

Glenette: *It's grown heaps in this one year since we started. Everything I planned is up-to-date. I've done everything according to the (business) plan that I've written out. Everything worked to that business plan – right on.*

Janelle: *How did you formulate the business plan – did you get help from someone?*

Glenette: *Help from Debbie (WestCAN chairperson) and Michelle (TAFE).*

Janelle: *Have you done any courses in business? How are you finding that side of things?*

Glenette: *It's OK I suppose, but if I really wanted to know about business, I'd be in it...like, in writing things, but I don't like writing, so ... You can get a business going and that's when you get a secretary so they can do all the work for you!* (laughs)
(Scotdesco, Oct. 2007)

The network chairperson organised network members to attend small business development training early on and has since provided ongoing support for entrepreneurial pursuits. Arranging on-the-spot training through direct sales at local festivals and encouraging network members to pursue landscaping contracts, the chairperson has played an extremely important business liaison, support, and mentoring role that has attracted and built external links with learning opportunities. Not all network members were completely confident in dealing with cash sales, handling money, and budgeting. The chairperson again mentored by personally providing or seeking advice.

Development work in rural communities, if it is to be successful, requires a balance of strong and weak relationship ties. (Brian Cheers, pers. comm., April 2007)

Individuals with weak ties within the community, but strong ties outside of it, are important because they can help build new relationships, thereby altering patterns of interaction and adding resources that may be needed for development.
(Taylor, 2004; p. 49)

Access to information is key to a sustainable livelihood. In terms of Aboriginal people's

involvement in bush produce enterprise development, both formal and informal knowledge networks need to combine to strengthen the decision-making capacity of individuals (Duncombe, 2006). Indigenous knowledge¹⁴ serves to strengthen socio-cultural capital in particular, but it is often the knowledge mediated through structures and processes (the institutional and organisational environment) which most effects the other assets. Meso-level organisations that interface directly with Aboriginal people, such as TAFE SA and DK-CRC, must therefore acknowledge, respect and combine local Indigenous knowledge with broader technical and market information to help reduce risk and lessen vulnerability. On the Far West Coast of South Australia, the WestCAN network offers a unique community-developed and community-based framework for aiding the exchange and enhancement of varying types of information and knowledges.

Employment and the proportion of benefits received

All network members are currently involved in bush produce enterprises on a part-time basis. Most receive a basic wage through the Government CDEP program (from \$240/week), working 2-4 days/week, supplementing this wage with intermittent sales of value-added produce and/or landscaping services. People involved in the Dinahline

¹⁴ Davenport and Prusak (1998) define *indigenous* knowledge as “a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers” (p. 5).

enterprise receive additional seasonal payments per kilogram for raw produce picked and sent off-site for value-adding. One member with fulltime employment in Ceduna earns extra cash by helping out family at harvest time. Other network members sell bush medicinal rubs in the Arts Centre and at community fairs.

To date, only one network member has worked full-time in developing a bush produce enterprise. Supported by family, Patricia Gunter, has developed a business based around a number of different products and services, including medicinal oils, soaps, rubs, and healing massages. Relying mostly on word-of-mouth to spread knowledge of her products and services, Patricia still supplements her bush produce work with interpreting and translation work.

During the research workshop, everyone expressed interest in salaried employment, whether on a part-time or full-time basis, and all bemoaned the current lack of financial incentive to work in the gardens. Workshop participants reported that the monetary benefits received to date are not in proportion to expenses incurred in the upkeep of gardens and equipment, thereby minimising any financial benefits likely to be experienced. In addition, people expressed dissatisfaction with the financial return offered in exchange for effort – i.e., the hot, hard work of planting, pruning, picking, and packing is worth more than CDEP payments and/or current rates paid for picked produce sent off-site [i.e., approx. \$20/hour for picked produce, paid by Quarmbys – based on \$20/kg of bush tomatoes, which take approx. one hour to pick (CSIRO, 2006)].¹⁵ In order to increase the ratio of effort:return, workshop participants suggested product diversification and the selling of seeds may help to increase profits, coupled with alternative marketing ideas – including the use of the internet to promote sales. In general, those people involved in value-adding activities are more satisfied with the proportion of monetary incentive they receive in return for their effort. The people working at Dinahline have been observing this and are increasingly speaking about how they hope to move into value-adding on-site too. They also emphasised the need for labels indicating the geographic and cultural context of their produce – to help with the sharing of information and the gaining of pride.

(Talking about how the people in Dinahline were firstly very enthusiastic about the garden, but over time the number of people involved has dwindled):

Edwin: *Ahh, I don't know. I don't know why they gave up. It's hard to keep growing it. The work is not hard, ...it just gets you down sometimes. You bust your gut for so long and then it's not going anywhere, you know, just staying at the one place.*

Janelle: *Over the five years, is it now at a level that you're happy with?*

¹⁵ Mike and Gayle Quarmby paid \$20/kg to individuals for harvested bush tomatoes, plus an additional \$20/kg into a community fund to help with plot up-keep and expenses (pers. comm., Nov. 2008).

Edwin: *No.*

Janelle: *What would you like to change?*

Edwin: *Well we can get a lot more fruit off it but we haven't got the people and the time to do things. We can make it grow a lot better, but it's just not enough people and not enough time.*

Janelle: *How many people are involved in the garden?*

Edwin: *Well, there was four...five, but they all went their separate ways so now there's only... (Now) there's a different gang altogether again than when I started. When I started, we had a different gang, and they all cut and left me there myself. And now we've got Paula and another bloke working there.*

Janelle: *So, three of you currently.*

Edwin: *Yeah, but it's too hard for us...way too hard.*

Janelle: *I've seen the size of the garden – it's huge for three people.*

Edwin: *Yeah. Plus, only on two days CDEP, so it just can't run properly.*

Janelle: *So, you get CDEP for working there (Edwin agrees), and do you get any extra money out of it?*

Edwin: *No.*

Janelle: *What about harvest time?*

Edwin: *Well, at the moment, when we harvest, it only just pays for our costs.*

Janelle: *So, you mean the costs of getting there and...*

Edwin: *We haven't had decent rain for... so most of it we pay for water.*

Janelle: *So, it's actually going back into the maintenance of the whole thing.*

Edwin: *Yeah.*

Christina Schubert works as a 'solutions broker' for the Department of Education, Employment and Workplace Relations (otherwise known as DEEWR). Her job is to aid the process of engagement with the commercial bush produce industry by Indigenous organisations or groups with organisational support. In the Far West Region, she works together with an on-site Indigenous Employment Officer, whom she explained is well known, respected by, and in regular contact with Aboriginal people throughout the Eyre Peninsular/Far West Coast region. Schubert said that this partnered approach allows the department to respond to local needs and concerns, facilitating beneficial links between government bodies and private individuals (Christina Schubert, pers. comm., March 2009). Wangka Willurarra Regional Council was the elected body in this role prior to the disbanding of ATSIC in 2004¹⁶, acting as a buffer between the various government agencies and the communities. However, since the demise of ATSIC, the role of the council has been spread

¹⁶ The Aboriginal and Torres Strait Islander Commission (ATSIC) was a Commonwealth statutory authority established through the *ATSIC Act 1989*, comprising a group of elected individuals to: ensure maximum participation of Aboriginal and Torres Strait Islander people in government policy formulation and implementation; promote Indigenous self-management and self-sufficiency; further Indigenous economic, social, and cultural development; and, ensure co-ordination of Commonwealth, state, territory, and local government policy affecting Indigenous people (*Aboriginal and Torres Strait Islander Commission Act 1989*: Section 3). The majority of ATSIC's budget was spent on economic development programs, including the CDEP scheme, and in 2003 funding and administrative decisions were transferred to a new executive agency known as the Aboriginal and Torres Strait Islander Services (ATSIS). However, ATSIC/ATSIS was abolished in 2005, with funding and responsibility for Indigenous programs returned to mainstream Commonwealth departments and agencies, and a network of Indigenous Coordination Centres (ICCs) replaced ATSIC regional offices. The policy and coordination role is now the responsibility of the Office of Indigenous Policy Coordination in the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA). (ref. Pratt & Bennett, 2004)

across various federal, state, and local government departments, often resulting in local-level confusion in regards to which organisations are responsible for what (ref. comments by Koonibba CEO, John Thomas, at the end of this case study).

Like the WestCAN members, Schubert believed the CDEP/Centrelink structure to be constraining bush produce enterprise development, as working hours are restricted and little incentive is gained from the base rate of \$240/week for 15 hours. Additionally, she recognised that the CDEP structure is often changing, and on-site supervisors/managers regularly come and go, often affecting project interest, completion and individual motivation. Instead, she advocated a labour-hire approach, (within which CDEP labour could also be used), whereby people are hired on a contractual basis and paid award wages. Pushing a contractual mentoring approach aimed at building a dedicated local team of growers/producers (perhaps made up of (extended) family groups and/or small partnerships), Schubert believed this could help build mutual respect, commitment and responsibility, conducive to future cooperative development based on specific site interests, but overseen by a state-wide (or national) network (*ibid.*). However, the question remains as to who would pay the award wages – local council? private enterprise? Additionally, if the work is seasonal, how do people earn a living when not harvesting?

As things stand, a general lack of workers in the three communities outside of Ceduna has meant people working in the gardens often feel overwhelmed and their motivation wanes. People have reportedly moved in and out of employment in the gardens for various reasons over the years, including: movement away from the area and/or inter-state; gaining full-time employment in Ceduna (which is within commutable distance for Dinahline residents); training and employment in mining (see the *Influencing Structures and Processes* section below for comments on regional and state-based economic development focus); and, a lack of practical infrastructural support, including basic occupational health and safety measures (see *Physical Capital* section below for further comments). At this stage, for these people, **the state government's 'partnering approach' doesn't appear to be effectively** changing the situation:

Janelle: *So, you're not making much out of it (i.e., being involved in bush produce enterprise).*

Edwin: *No. But if we had a proper gang who would work five days a week, ... 'cause there's a lot more things we could do to it to make it grow better and produce more fruit. But the way it is now, we just can't do it.*

Janelle: *So you really need more people?*

Edwin: *Yep. Five days a week.*

Janelle: *Like a salary or something.*

Edwin: *Yep. 'Cause when we first started, it was like everybody wanted to get on board, you know. But then, as the years passed, everybody just nearly forgot about it. We've been on CDEP for the last couple of years, with a gang to work five days.*

When we first started, we worked for nothing. We'd do our two days CDEP, then work the rest of the week for nothing...just to get it going.

(...then, speaking about the large Koonibba plot of bushfoods currently not being tended):

Edwin: *You can't work it...see, you'd need to work all week.*

Kym: *Yeah, right through the whole full week, not two days. It can't work for two days. Makes it hard for us.*

Ceduna resident and WestCAN member, Ruby Saunders, spoke of the many young people she had spoken to and worked with who were interested in the gardens as an opportunity to work on-site (i.e., to not have to move away), and to continue learning from the Elders:

Ruby: *There's a lot of young people that want to work on Dinahline. Um, and that's the only area at the moment for them to learn...as opposed to coming into town to work. Um, they wanted to work at their...at the Dinahline community and the garden.*

Janelle: *So they can work on-site.*

Ruby: *Yeah, yep.*

Janelle: *'Cause I guess their choices apart from the garden...there's not great amount of choice of what to do there as a job.*

Ruby: *That's right, yeah. ...And plus, it's family too. It's um... young ones are family, and they're learning from the Elders, from their family.*

Is it primarily the lack of financial return which discourages these youths to be involved in the gardens? Or is it the lack of a definite role for Elders in horticulture that fails to attract the family-based learning incentive mentioned by Ruby? The youngest member of the Koonibba garden gang (aged 20), spoke of his interest in learning from the older men with whom he works – whether collecting seed from the wild, propagating, or working in the garden. His motivation is the exchange of cultural knowledge that occurs while he works. Meanwhile, Edwin Carbine spoke of what he sees as a lack of monetary return causing young people in the Dinahline community to lose vital interest and momentum in the early stages of bush produce development:

Edwin: *First we wanted to scheme on an enterprise that would end up picking our own fruit and making the chutneys and everything. We were scheming on that...but then everybody just fell off the bandwagon.*

Janelle: *Was it because you didn't have the number of people to help that you couldn't go on your own?*

Edwin: *Yep. Well, he (Mike Quarmby) was going to help us. He was the one who suggested it, you know. He thought it was a good idea. But then we couldn't get people to work...they only wanted to work for two days. But (they would've needed to) work for five days and get paid for two days...(!)*

In regards to developing greater financial incentive to bush produce industry involvement, mining companies and local development organisations offer potential sources of employment and income. ILUKA, a multinational mineral sands mining company, has recently moved into the Ceduna region and is conducting extensive exploration along the west coast region, as far as Yalata. The company is currently employing local Aboriginal

people for land rehabilitation and track maintenance, and has employed an Indigenous liaison officer to help facilitate local community engagement (Richard Mills, pers. comm., Nov. 2007). To date, ILUKA has utilised the local TWT Aboriginal organisation as an employment agency, as they are constantly in contact with people and know when people are looking for or available for work.

There would appear to be potential for the nursery and landscaping services offered by WestCAN network members to be of value in developing a more ecologically sustainable and appropriate approach to mining and rehabilitation in the region, with communication between the Indigenous liaison officer and the WestCAN chairperson key to the fulfilment of such possibilities. Recent housing estate development in and around Ceduna also offers potential employment through contracts for landscaping of native gardens. Once again, **communication is key to network members' involvement and the chairperson plays a crucial role in the liaison.** (Initial talks about such landscaping possibilities began in late 2007 when housing estate developers visited the WestCAN stall at the regional *Oysterfest* to learn more about the Koonibba nursery).

Health and nutritional status, well-being, pride, and motivation

The raw produce picked at Dinahline is mostly packaged and sent off-site for value-adding. Bush bananas (*Marsdenia australis*) and bush tomatoes/desert raisins (*Solanum centrale*) are the two main crops. Edwin Carbine explained how these foods are not found growing in the immediate region and are therefore not usually eaten by the local community. Edwin and his family eat some fruits while harvesting; however, most produce is sent off-site and does not return to the region. Some raw produce from Dinahline is packaged at Reedy Creek Nursery (*Outback Pride* brand) near Kingston and is then sent to community stores in the APY Lands.

In contrast, the Dinahline community enjoy the produce from a conventional vegetable garden located beside the bushfoods garden on the homeland. Traditional bushfoods and meats are hunted and collected from the bush when in season – including *wardu* (wombat), *gulda* (sleepy lizard), *bra* (quandongs), and native grapes (nitre bush; *Nitraria billardieri*). These foods are non-commercial and are usually shared between family members. Similarly, Koonibba has a community-owned vegetable patch where produce is shared between community members. Seasonal bush harvest activities not only provide important nutritional supplement to store-bought foods, but also provide exercise and a chance to connect with kin and Country.

There are several women living at Scottdesco and also in Ceduna who are involved in the bush harvesting of medicinal plants. There is a history of local trade between family and

community members of the medicinal rubs and ointments made from these plants. Many people know of the healing properties of the plants and use the topical creams on a regular basis. The act of giving health to others is also considered to be beneficial to the giver. Rubs, ointments, soaps, and healing massages are locally available through the arts centre, at local festivals, and through direct contact with the producers. Healing masseuse, Patricia Gunter, spoke **of the act of healing being "in my blood", with benefits of strength to both** the giver and the receiver, the establishment of energising relationships, and the growth of trust between clients and herself. She said people who are in need of help often find their own way to her, but she also knows the importance of connections to really let people know what services she offers. This requires confidence and self-belief, and the support of a networking structure like WestCAN can be invaluable here (pers. comm., Feb. 2009). Elder, Joy Haynes, agreed, saying the group provides an important platform for her to talk about any worries, concerns, or issues (pers. comm., Oct. 2007).

Comments relating to well-being, pride, and motivation made in groups during the 2-day workshop, exemplifying the need for local community support and involvement (Aboriginal and non-Aboriginal):

"Set up garden with growing and selling trees, sharing vegies with the community, started feeling good - proud of what we achieved, knowing others may want to be involved."

"Now we have people who want our plants we have a sense of pride wherever we go. Self-satisfaction; self-esteem; up-lifting; making your own money; confidence to know that the enterprise is economically viable; self-respect and respect for **associates' and clients' views.**"

" **Self**-pride and pride of family and others; a chance to educate the younger generation to follow a positive way of life; self-satisfaction and self-**worth.**"

"**Lost some workers, found it hard to maintain the garden – too much work; too few people. (This) started to get to me. Just did what we could. Felt down.**"

"**Get stressed out when hard work is put into plants to beautify surrounds and kids then pull them out and parents don't sort the kids out. ...(Although),** things are starting to get back on track and people are feeling a lot better because the majority of people still support what we do – **(we) feel a lot better.**"

"**Helping farmers and others to put back trees where needed** - revegetation; people didn't know about us before - now they're asking for our help for revegetation; getting respect from people outside community, in towns; acknowledgement and appreciation of people and their skills; demand for the products and Aboriginal culture bring back respect and pride to us as a group of **Aboriginal people.**"

Pride, motivation, positive self-image, self-respect, financial independence, a reason for being - all these effects are currently being felt by network members in relation to their involvement in bush produce enterprises. They speak of such worth also fluctuating

according to community support; however, the continued existence of community vegetable gardens and the emphasis on local trade of bush medicines point at the interest people have in work and activities that involve looking after their family and community. It would therefore seem that to increase benefits to individual and community health and well-being, there needs to be a conscious effort made to ensure the local community an ongoing role. Network member, Jean Carbine, confirmed this, saying that high motivation has a positive correlation with the number of people available to work (pers. comm., Feb. 2009).

NATURAL CAPITAL

The traditional lands of the West Coast Aboriginal peoples have been developed for agriculture and grazing, leaving only 38% of the original vegetation of low open woodland and mallee scrub (Davies, 1991). Surface water is scarce and groundwater sources are from shallow subsurface aquifers. WestCAN members identified several natural capital effects and frustrations affecting their bush produce involvement:

Water resources and access

The only problem is water. There's water but they'd rather use it on our bodies and sheep and that, you know...like for the household thing. It's not really enough water to put on the garden. (Glenette Miller, pers. comm., Oct. 2007)

Janelle: *Have you had any feedback from the community about what you're growing?*

Glenette: *Oh, they said it's good, but all they're saying is about the water...it's the only thing they're really saying about it. It's the main thing is the water – it's all they talk about. They say "oh, you're going to grow all this here and all that there, but where's the water going to come from?" That's what they all say. They say it every single time.* (Scotdesco, Oct. 2007)

Gathering of bush-harvested plants and fruits depends on seasonal availability. Recent drought conditions in the region ensure that water is a precious natural resource often in short supply. With rain water scarce, bore water and commercially-bought water are increasingly used, adding to costs, and the use of scarce community-based water resources for horticulture can be contentious.

A desalination unit at Scotdesco initially aided in the watering of the horticultural plot; however, the unit was unreliable, and constantly breaking down, with state government funding withdrawn (MLCS, 2008). Glenette explained some of her frustrations relating to these water issues:

Glenette: *There's a water tank there but it's not enough water to...because the desal(ination unit) has been playing up.*

Janelle: *Was that (desal) previously feeding the plants that you've got there?*

Glenette: *Yeah... and it keeps on breaking down and they've got to move water from one area to the next, like for the sheep and that, but they wouldn't worry about me, because I'm not important....like the garden thing. You know, they do the sheep and then the household, any household needs (water)...*

Janelle: *Is that from the community perspective?*

Glenette: *Yeah, that's what I think anyway.*

Janelle: *Have you asked more about access to water?*

Glenette: *Yeah, and you know,... it doesn't look like it's going to rain soon, does it, you know? You know what I mean? ...Yeah, there's water there but not enough of it. Like watering the plants and that – they still need more water. ...Everything's still growing, but it's just the water, we still need more water to grow heaps of stuff.*

Janelle: *Has the community ever had to buy in water?*

Glenette: *It did, a couple of times. If it comes down to it, I could buy water for the garden... You can try to buy water here and there, but it's still going to cost an arm and a leg..*



TAFE lecturer hand-watering young plants

Resource supply, access, selection, and management

People have noticed a recent drop in the availability of bush-harvested foods, in particular the quandong. Although this could be due to lack of rain or other reasons associated with plant growth and physiology, Nicola Samson (TAFE SA lecturer) hinted at another possible reason why resource supply may be decreasing. She described how while working for the SA government Department for Environment and Heritage (DEH) she used to log the amount of native seed leaving the state. She said that there was tonnage leaving all the time, and despite her pointing this out to the department, and emphasising the fact that they were

losing their wild genetic stock, Samson claimed the DEH deemed it **'hard to police'** and lacked a coordinated approach to adequately control the amount leaving the state, and that while a permit system existed this did not address illegal collecting, and that this was the real problem (Nicola Samson, pers. comm, Nov. 2007).

South Australia does have permit requirements in regards to commercial use of wildlife (see *National Parks and Wildlife Act (SA) 1972*). The permit process is meant to be focused on keeping track of the bush produce harvest – i.e., looking at the quantity of produce harvested and the methods used, rather than a direct focus on why the plants are being collected, with the aim being to promote an ecologically sustainable harvest (Diana Koch, pers. comm., May 2009). However, during the two-day workshop, the community co-researchers expressed concern over people from outside the local Aboriginal community accessing and (over)harvesting native plant resources that local Aboriginal people traditionally harvest with their families. To help combat this perceived risk, they spoke of increasing community control and access through encouraging plant growth nearer communities – perhaps through managed bush harvest and selective breeding.

Wild resource genetic material has developed through the natural selection of high-yielding forms/plants. Plant breeding, on the other hand, requires changes to the genetic structure through manipulation – this can lead to patents. People feared the garden at Dinahline contains genetically modified food plants, developed as a result of a desire to increase raw produce quantity and quality. **However, Mike Quarmby said all the plant IP "belongs to the Aboriginal people", as his is a "natural breeding process based on Aboriginal knowledge",** with all produce coming from the best plants/clonal varieties grown in the gardens. Mike signs an MOU with each community with which he works, stating that he will not take up any Plant Breeders Rights (PBRs) (pers. comm., Mike Quarmby, April 2006). Rather, he would like to see DNA finger-printing for new clones. Still, Samson emphasised the enormous issue of trust in such relationships and the lack of any real control Aboriginal people currently have over their bush resources and produce development (pers. comm., Nov. 2007).

Workshop participants emphasised the continuing importance of teaching traditional harvesting methods in maximising resource use and growth; contrasting this with the broad-scale bush resource management and development most often controlled by various government departments and/or non-Aboriginal organisations. They feared such approaches too often involved a lack of respect for Aboriginal people and permissions; aimed at accessing land to utilise natural resources for financial gain, without really understanding, acknowledging, or supporting the underlying cultural authority. As far as the sustainability of

medicinal plants and their usage is concerned, Patricia Gunter has been wild-harvesting medicinal plants for over four years and says she has only seen the plants get thicker over that time, which she believes to be a direct result of the pruning effect of her gathering technique (pers. comm., Feb. 2009).

PHYSICAL CAPITAL

During the workshop, people spoke mainly about the improvements to infrastructure relating to horticultural plots as well as varying access to communications technology needed to improve information flow. Tanks, bores, and irrigation systems have been established; hot-houses and shade houses are used for propagation and seeding. However, community-level **politics and 'gate-keeper mentalities' of office staff were identified as causing anxiety and** discouraging people from seeking assistance, often blocking communication needs and access to physical resources. People spoke about situations and changes at the community level making them feel like "giving up": "People in the office don't fully support our work – we've got no vehicle to cart plants and water, to do work" (group-recorded frustrations during 2-day workshop, Oct. 2007). Workshop participants explained the need for more ready access to vehicles and/or fuel in order to travel to bush-harvesting and seed-gathering sites, with access to community-owned vehicles sometimes controlled and restricted according to office-staff attitudes and/or limited vehicle availability. There has also been some vandalism of the Koonibba garden by young people in the community, which the garden workers find difficult to address:

Janelle: *Do you get a lot of community support for the garden?*

Peter: *The women's group – when they get sick of painting and sitting down all the time, they come for a walk. Gives them something else to do.*

Kym: *All the parents have to keep the kids away.*

(There have been incidents of kids disturbing the plants and garden set-up.)

Janelle: *Did the community do anything about that? Did they punish them, or...?*

Kym: *When the kids are confronted, they say, "no, he didn't do it". (i.e., it's difficult to really pin-point who exactly.)*

Janelle: *And any similar problems at Dinahline?*

Edwin: *No. We only have about 10 kids, but they know they're not allowed to go and muck around in our garden. We told them.*

Kym: *We told the mob around here (Koonibba)...straight through one ear, and out the other!*

(About 11 families live in Dinahline vs. Koonibba community of about 300 people.)
(Koonibba, Oct., 2007)

Meanwhile, on the more positive side, information and samples relating to glass jars and labels used in value-adding produce have been increasingly introduced to the network through connection with the University of South Australia and the Desert Knowledge CRC. Ideas on how to market bush medicines, native teas, and jams have subsequently expanded, and displays of produce at festivals and regional shows have benefited accordingly.



Irrigation, weed mats, trellises, sheds, water tanks

FINANCIAL CAPITAL

Individual and family income level

Business development has been small scale to date, with little economic return. Access to markets has been predominantly through direct cash sales at festivals and research seminars, art centre retail outlets (30% commission), and through word-of-mouth/repeat sales to family and friends. People would like to develop more contract work with 'big-players' – e.g., council; housing estate developers. Marketing and market development concerns are spurring people to attend festivals and other symposiums to help spread the knowledge of their enterprises both within and beyond the local community.

The long term aim of most network members is to become financially independent through their enterprises. As enterprises develop, other income sources help increase personal and family-based financial capital, including fulltime employment in town (Ceduna) for some people living either in town or within a commutable distance (<15kms). Those people who live further out often receive CDEP payments for 2-4 days/week. To date, those people involved in horticulture and supply of raw produce to external wholesalers (including Reedy Creek) have reported the least monetary reward for their labour. In comparison, greater control over the production process and ownership of value-added products has helped maximise financial returns for those involved in product development and service delivery (e.g., massage oil and healing massage services; nursery production and landscaping services). To help attract and fulfil contracts and increase financial rewards, network members also pool resources and share returns between them, both intra- and inter-community:

Janelle: *When you work in the gardens, do you work alone or in a group?*

Edwin: *In a gang. It's boring working alone.*

Janelle: *When you are harvesting in a gang, do you weigh and get paid for the kilo collectively? Or separately?*

Edwin: *We have a bucket each, we fill them up and put it all into a box.*

Janelle: *Then payment is split between you all?*

Edwin: *Well, what we've got to pay goes out first and then we'll have something. It doesn't matter who picked it. If somebody picks more than the other person, it doesn't matter.*

(Edwin explains how he is a lot younger than the other two workers, and that it does not worry him if he picks more than them. The Koonibba men say they also share their financial returns between them.) (Koonibba, Oct. 2007)

Community resources (funds) and equitable access

Community-level financial support seems to often be contingent upon good personal relations between administrators (often non-Aboriginal) and community members. Apart from seasonal community funds paid to Dinahline by the Quarmbys, financial return to community organisations has been non-existent to date, and network members spoke of **people "waiting to see what happens" as to whether financial support** is forthcoming. There is potential for community-level support and involvement to increase once financial returns become apparent.

Future financial return to the broader community may help to lessen any tensions between community members that are based on jealousies relating to money earned by individuals and families involved in the enterprises. In the meantime, network members are keen to involve community members in their activities, to help spread information and understanding of what they are doing so people more readily accept what they are doing.

Comments relating to income and financial returns made in groups during the 2-day workshop, Ceduna Oct. 2007:

"Some people don't receive \$\$ return for their effort, so there is no monetary incentive for the hard work done."

" Payment in the community gardens is primarily through CDEP; additional income is possible during harvest periods (\$20/kg for *Solanum centrale*); however, all extra money earned during the harvest is spent on running costs (incl. water), so people feel the financial return is not enough for the effort they put in. In comparison, those who market and sell value-added products directly to (primarily local) customers rather than through agents/wholesalers (e.g., at local markets, festivals, and sales made through friends and family) are generally happier with their financial return."

"Some people have experienced feelings of jealousy and power struggles from other (Aboriginal) community members as a result of their involvement in bush produce enterprise development."

INSTITUTIONAL CAPITAL

Although Institutional Capital was not formally discussed during the workshop, information was gleaned during discussions and interviews with network members on the various effects of different organisations and institutions on livelihoods and the development of individual enterprises:

- **WestCAN** – provides socio-culturally appropriate support through a mentoring-style approach aimed at building confidence, knowledge, and experience in business in a **safe and encouraging environment. The emphasis is on furthering the network’s role** in attracting independent funding so decisions and control can be maximised at the local level.
- **University of South Australia and Desert Knowledge CRC** – provide advice, and facilitate broader contacts and links to help with specific product and business development; help develop networking opportunities; give financial support (for network members to attend conferences and workshops); fund collaborative research on socio-culturally sustainable enterprise development.
- **CDEP** – provides a base wage for those network members working in horticulture. CDEP management (including individual managers) varies between sites with on-site management reportedly allowing for more immediate response to needs (e.g., at Scotdesco). Off-site CDEP management has reportedly caused labour shortages and equipment shortfalls in the past.
- **TAFE SA** – provides training and advice in horticultural methods. Recent changes to local programs (including increased literacy and numeracy courses) have focused on skilling-up people for mining jobs in particular. As young people move out of the area to work on mine sites further afield, this may have detrimental effects on horticultural set-ups already short on manpower.
- **Reedy Creek Nursery / Outback Pride brand** – provides ongoing training and advice in horticultural methods; has developed a value-adding training package to help encourage people to move into their own production - however, limited (no) up-take to date; provides a guaranteed market for produce grown on-site; invests a percentage of profits back into participating communities for on-site maintenance.

5.1.3 Key contextual factors effecting Aboriginal people's involvement in commercial bush produce industries and benefits to livelihoods and well-being in the Far West

It is not only people's assets that will determine what livelihood strategies they employ. As well, the contextual environment plays a large role in shaping people's motivations, choices, and opportunities that ultimately effect the development and flow of such assets. The SL framework reviewed in Chapter 3 recognised a range of factors that routinely combine to influence and shape livelihoods, ranging from institutions, organisations, policies, and legislation (labelled *structures and processes*), to population, economics, resources, technology, employment opportunities, and climate (*vulnerability context*). Added to these socio-cultural, socio-economic, and socio-ecological factors are the historical backgrounds and political economy of people, their families, and communities.

Not meant to be an exhaustive list, the following factors identified during the research outlined from the Far West Coast provide an enhanced understanding of some of the key influences on local people's lives and is helpful in identifying ways in which people may best be assisted by a range of stakeholders to achieve their desired livelihood outcomes:

INFLUENCING STRUCTURES AND PROCESSES

Local resource rights and ownership, land tenure and the homelands movement

Land tenure effects land use choices, and recent changes, caveats and restrictions on existing land and building assets through land-holding bodies such as Aboriginal Lands Trust, Indigenous Land Corporation, and the Commonwealth government (previously ATSIC/ATSIS, but now mainstreamed Indigenous affairs) have caused some uncertainties and a subsequent lack of motivation for developing bush produce enterprises on such lands (MLCS, 2008). Commonwealth government policy to not fund houses on homelands is also a significant factor on their future development (Kerins, 2010). Instability of tenure, disputed land tenure, lack of knowledge about rights, and constant changes to legislation mean tenure is a major issue underlying all land-based activities. In recognition of this, DEEWR recently began work on amalgamating all the tenure information relating to specific regions to help overcome potential barriers. They have completed this process on the Far West Coast of South Australia and now FaHCSIA is putting together a national register of tenure (Christina Schubert, pers. comm., Nov. 2009).

Local socio-economic climate: including education and training opportunities; lack of long term industry and business development information and support; lack of funding and changes to ABSTUDY and CDEP policies

The stated aim of a recently released regional economic plan focussing on Indigenous communities is to provide a strategy for the development of local economic growth and

opportunities for employment and training, “which balances the cultural and social goals of life with sustainable economic development” (MLCS, 2008). While horticulture, NRM, and the Indigenous and local economy were identified as key industries in the region, the establishment of good corporate governance, corporate structure, and a solid business investment approach methodology and framework were firstly selected for implementation.

An increase in state government resources, and local Aboriginal endorsement of a structure separating commercial decision-making from social programs has been recommended, through the development of incorporated economic development organisations, and a collaborative inter-community business network and cooperatives offering mentoring opportunities. Direct employment in the mining industry or businesses associated with this industry is seen to offer the best opportunity to gain sustainable incomes and lifestyle choices, with a focus on partnerships between Indigenous and non-Indigenous enterprises (*ibid.*). Considering such emphasis on mining, most local-level government support for bush produce industries can be expected to concentrate on mining site rehabilitation, for which the nursery and horticultural skills of WestCAN members may prove quite suitable.

In some ways, to date, TAFE has provided a focused mechanism for bushfood production activities throughout the region, whereby people have worked towards nationally accredited qualifications. However, those within the industry report a self-supporting ethos coming from macro-level players, including state government departments, which contrasts with the reality of a poorly resourced, inadequately educated base:

Business plans are always geared toward Aboriginal people becoming self-sustaining; however, the support to date has been tokenistic. There is always a short term, ... 'self-sufficiency or we cut the funds' " approach which only generates more stress for disadvantaged people in poor remote communities, who are already struggling. It is a Third World approach and quite lacking in vision, given the resources in Australia. (Nicola Samson, pers. comm., Nov. 2007)

Similarly, Davies (1991) described a lack of comprehensive planning and reliance on short-term programs for trying to fund long term projects throughout the region. She quoted local Aboriginal people saying they lose interest and commitment to projects if they have to be run on a stop-start basis (p. 106). Other educators have commented on the inflexibility of TAFE courses and training approaches that are qualification-based, rather than project-based.

In contrast, WestCAN members were very appreciative of the person-to-person on-going support, particularly around their marketing and business management needs, provided by and through the WestCAN chairperson and network. Also, during an update visit in 2009, a local TAFE teacher had created a positive educational environment geared to local project

needs. Community members at an on-site classroom at Scotdesco reported renewed motivation towards local enterprise development due to the emotionally and professionally supportive environment provided by the teacher. People spoke of her great energy, vibrancy, and non-threatening approach encouraging innovation and gearing education to local project development and outcomes (Scotdesco TAFE students, pers. comm., Feb. 2009).

Dinahline community members also reported that they would like help to develop their own locally-based marketing and business skills, although there have been barriers to this, as cited previously. The external Quarmby/*Outback Pride* relationship is one of dependence in selling/buying the plant and raw produce, and although discussions were previously held between *Outback Pride* project participants and Mike and Gayle Quarmby, about possible future directions of the on-site enterprise structure, there were not enough people in the community interested at that time in taking on product development roles. Meanwhile, the Quarmbys are frustrated and disappointed that state government support for the project, including funding for community-based supervisory and mentoring roles, has been decreasing (pers. comm., Dec. 2007). Dr Susan Semple, plant pathologist and research fellow at the Sansom Institute, University of South Australia, also commented on the general **lack of funding promoting Aboriginal peoples' bush produce** industry involvement and the inflexibility of current funding approaches:

Some of the main issues with Aboriginal people's involvement in bush produce industries relate to the limited number of places to source monetary support. Most places have pre-structured approaches to the application for and granting of funds. Few (if any) government departments (especially) are going to give Aboriginal people a go on their own terms – i.e., in an Aboriginal way and in an Aboriginal time frame. There is a general lack of funding in this area in comparison with the keenness of the people.
(Susan Semple, pers. comm., May 2007)

The WestCAN network applied to become an incorporated body so as to be able to apply for grants. To date, the chairperson has provided an important link to funding opportunities, researching what is available, making enquiries, and writing applications. In terms of training funds, people completing TAFE courses used to be eligible for ABSTUDY¹⁷ in addition to their CDEP payments. However, there have now been changes made so that people can no longer gain ABSTUDY *and* CDEP. Perhaps, as a result, TAFE lecturers have noticed a drop in the number of students attending horticultural courses. During the workshop, WestCAN members spoke of their concern about CDEP changes meaning they could not receive CDEP to attend training courses. They felt this left them in a bind – i.e., wanting and needing new skills for a better future, but uncertainty as to training and job

¹⁷ ABSTUDY is an allowance for Indigenous secondary or tertiary students, or fulltime apprentices. It consists of a fortnightly living allowance as well as additional components to help with the costs associated with attending school or further studies.

opportunities. Further changes to the national CDEP program in 2008/2009 (ref. Australian Government, 2008) have since contributed to an increased sense of vulnerability and urgency to develop financially independent income sources. As a result, people seem keen to move into enterprise opportunities, but not without appropriate levels of financial support and training, at least in the initial stages.

In addition, day-to-day labour shortages experienced in the bush produce gardens have tended to correspond with the location of CDEP management and supervision. As a result of decisions aimed at centralisation and efficiency, many CDEP offices which were previously located in the homeland communities, have been moved off-site to Ceduna, seemingly making it difficult to meet local (labour) needs on a daily basis, as management decisions made at a distance are not always aligned with and/or aware of local circumstances (source: observations and comments made by some WestCAN participants over the course of the research). Still, on-site supervisors should be attuned to local needs and realities, playing a key linking role – (one often emphasised by Mike Quarmby in his support of an on-going CDEP framework) - and in some cases the movement of CDEP offices off-site has been welcomed for creating greater employment opportunities, especially in mining and construction industries (Koonibba CEO John Thomas, pers. comm., Feb. 2009). However, considering the nature of such growth industries, the question remains as to what effect gender bias may have on sustainable bush produce industry involvement and growth.

Racism/marginalisation; internal jealousies

Believe in yourself...let the negative things wash over you...be positive about your own journey.
(Patricia Gunter, pers. comm., Feb. 2009)

Williams and Thorpe (2003) traced the history of Aboriginal workers and managers in South Australia, pointing to the tendency of successive governments, missions, employers and other authorities to conceive Aboriginal people capable only of "basic labouring or service work requiring minimal levels of non-Aboriginal education" (p. 32). They wrote of how *Nunga*¹⁸ workers in mainstream society "comprised a classic example of 'colonised labour' – a form of employment that resembled slavery" (p. 33). While conceding that this situation was improving, (e.g., through increased recognition of and responsibility for past injustices), they highlighted a number of constraints which they felt continued to hinder the aspirations of Aboriginal peoples, including entrenched racism and the thought that most *Nungas* have 'lost' their culture and so have no claims as a distinct people. In contrast, they stressed the determination of Aboriginal peoples to hold onto their fundamental values, beliefs, and

¹⁸ „Nunga’ is a generic word used to refer to Aboriginal peoples of southern South Australia and is used in contrast to the word „Goonyya’, meaning non-Aboriginal or „whitefella’.

social structures - in particular the importance of land, family, and kinship – and asked that these be better understood and respected by the dominant work culture.

In 1991, Davies wrote of the lack of interest shown by non-Aboriginal people and organisations in supporting Aboriginal involvement in regional NRM on the Far West Coast of South Australia, outlining a history of racism in the area. Poore (2001) also reported strained cross-cultural interactions in Ceduna, with Aboriginal people on the beachfront being **considered “unsightly” (p. 15)**. WestCAN members reported contemporary examples of **marginalisation, discrimination, and racism that regularly influence Aboriginal people’s** livelihood choices and decisions throughout the region. Although local bush products have increasingly helped build cross-cultural respect and understanding, WestCAN members emphasised the importance of self-confidence in overcoming any negative impacts on individuals and communities. Negative vibes and jealousies are sometimes also experienced from within the broader Aboriginal community. Again, it is the self-belief factor (that WestCAN members strive to build in their members) that gets people through.

VULNERABILITY CONTEXT

Market immaturity and lack of local market

There are few outlets selling bush produce in the Far West region: a few luxury items in the Ceduna supermarket; cottage-industry produce at the Woolshed, a craft outlet in Penong; the Ceduna Aboriginal Arts and Culture Centre. The pubs and restaurants have the occasional kangaroo steak with commercial quandong glaze, but there is a limited commercially-based local market. The Aged Care facility sometimes has quandong pie – so there is private use of bushfoods happening (both Aboriginal and non-Aboriginal).

DEEWR are keen to address the current lack of local market. They consider one of the main objectives of the development of bush produce enterprises to be the local market (Christina Schubert, pers. comm., March 2009). They also realise that the bushfood industry is currently restricted in its ability to provide a sustainable income of its own, as it is still an emerging industry. Seeking advice from an Aboriginal horticultural consultant experienced in bushfood production (Ron Newchurch), DEEWR are now advocating a mixed horticultural approach (i.e., growing conventional vegetables alongside bushfoods) to help cope with commercial market instability. They aim to increase local understanding and facilitate connection with external markets, but they have also approached the local IGA supermarket and gained their support for future local food production. Schubert says giving people greater choice in the ways they wish to engage in commercial horticulture and/or bushfoods is important (*ibid.*).

Regional-level appellation development combined with increasing cross-cultural awareness through tourism and mining employee training may help develop future local markets. The Eyre Peninsular registered a regional trademark and logo in November 2007 – exploring the **food branding possibilities. Members join the “Eyre Peninsular Australia Seafood Frontier”** group to use the trademark and logo (which is an oyster with a pearl sitting in it). Prawn farmers and mussel growers have joined, and it is expected that the oyster farmers will too (Howard Coote, pers. comm., Nov. 2007). There is obviously a possibility that such regional brands could be incorporated into future local bush produce labels.

Water scarcity/costs

Water supply is a constraint on bush produce activities in the region. After conducting research into the economic viability of the horticultural enterprise at Dinahline homeland, Howard Coote of the Eyre Regional Development Board, suggested the homeland look at propagation, after his research identified plant propagation and on-sale to wholesalers as **the most economically sustainable option. Coote’s research showed that in order for the** Dinahline business to be profitable as a growing venture, it would need to be 30x bigger than it currently is. However, this would be unsustainable due to the amount of water needed. To help investigate these factors of environmental sustainability, Coote suggested the bushfoods industry requires horticultural mentors – perhaps with PIRSA looking at soil testing, and people really dedicated to looking at the water issue (pers. comm., Dec. 2007).

Harvest times and infrastructure layout

Harvest times of bush tomatoes and bush bananas generally correspond with Christmas holidays and hot weather time, meaning there are fewer people likely to be available to help out: **“People have to return home from travel in order to harvest, in the heat.”** People have often found this a stressful time as a result.

Throughout the region, infrastructure developed for bushfoods cultivation has been set up along the lines of conventional (mechanised) western-style food plant production, where produce is grown in lines conducive to growing and harvesting for maximal financial return. The fact that these gardens are hand-harvested, often by women, seems not to have been considered important in plot design. Talking of a pilot garden set up a few years ago near Koonibba, but currently not tended, a former *Greening Australia*¹⁹ employee highlighted some of the physical impracticalities:

The women used to go to work on the plot; however, there was no shelter where people could sit, nowhere to put things, no comforts, no toilet for the women, and there were many snakes – and the women were (understandably) afraid! The plot was also

¹⁹ *Greening Australia* is a solutions-driven organisation committed to practical solutions to Australia’s environmental problems, employing a blend of experience, science, and community engagement. (ref. <http://www.greeningaustralia.org.au>).

located at a distance – too far and an uphill walk. This meant that people had to rely on others with a vehicle to get there. Also, there was no phone, (in case something happened) (Anon., pers. comm., July, 2006)

This seeming lack of adherence to OH&S considerations was in addition to a plot layout designed to maximise production that perhaps was not the best for maximum socio-cultural and human capital benefits. At first, people reportedly **“freaked out” at the long**, straight rows of cultivated produce. As a result, the lines were cut to create smaller boundaries, with which people seemed happier. Such experiences suggest more time should be spent on collaborative plot design, to better meet local needs and interests. More recently at Koonibba, for example, community vegetable plots were designed and built by the gardeners themselves, using recycled materials to make garden beds, and covering them in shade cloth. People enjoy spending time working in this garden.



Community vegetable garden and shade house at Koonibba

COMMUNITY STRENGTH

As described, community support for individuals in this region includes social and emotional support, financial support, access to water, equipment, labour, and vehicles/transport.

Support tends to fluctuate and is dependent on future returns, but changes to CDEP are a motivating force at the individual and community level:

Janelle: *The broader issues of Aboriginal people’s involvement in bush foods – what do you think about...where do you think that future is going at the moment? Or where would you like to see it go?*

Glenette: *I’d like to see it go a long way. They’re talking about getting a bush track here so that people can come and visit. That could be a stop-over on the way (across the Nullabor), if we have enough produce and things – start off with a couple of tourists and see what they think and ... They could be coming into my little area, the garden area. ...I’ll get out there and help, and everyone else will. All we’ve got to do is ask people and people would rather*

do something like that there with tourists and ... and everyone's confident when they talk to people. If people want to know things, they'll let them know... And at the end of the day they can come and have a wattleseed icecream. So, everything's got to be tied together and everyone will benefit because... they're talking about the track so people can go into other areas instead of CDEP – so, it's going to be a full-on thing. I reckon it's a good idea!

(Scotdesco, Oct. 2007)

5.1.4 Case study summary and conclusions

KEY ASSETS AND STRATEGIES

Major benefits and risks/issues from involvement in the industry as seen in this case-study include:

BENEFITS	RISKS / ISSUES
Gaining of respect, support and acknowledgement from both Aboriginal and non-Aboriginal family and community members	Loss of Traditional Knowledge and IP
Learning of new skills and the sharing of knowledge	Short-term, under-funded nature of many training opportunities; loss of technical skills with high turnover of workers; lack of long term business development support
Increased sense of pride and self-esteem	Stress and loss of motivation due to lack of workers and/or lack of community support; racism, marginalisation, and internal jealousies
	Minimal financial return for effort
	Lack of water; heavy reliance on irrigation
	Non-Aboriginal management and control of wild-harvested resources
	Lack of access to vehicles to work effectively and efficiently
	Market immaturity and lack of local market

To help ameliorate the risks and increase the benefits, there are many livelihood strategies being employed, including:

- on-site value-adding, diversification of product base and outlets/markets (e.g., art centre sales; festival stalls; word-of-mouth and kin networks; community stores)
- the use of kinship networks for socio-cultural and emotional support
- the general treatment of enterprise development as a part-time engagement, with the potential to expand
- the pooling of human resources (skills and expertise) to increase sustainability
- active involvement in IP protocol development
- keeping wild bush harvest activities happening in areas of horticultural development, to help facilitate transfer of traditional knowledge

- broadening information in Aboriginal and non-Aboriginal communities re. the products and services – educating people and developing local markets
- learning about alternate water-saving devices/irrigation methods.

The following discussion is focussed on ways to increase the benefits and minimise the risks, by further analysing the impacts on each of the livelihood assets. It is based around key concerns and insights raised by the participants of the WestCAN workshop, Oct. 2007 (ref. **Appendix 5**):

Producers

have cultural responsibilities

Ruby: *I don't know. It's just... it's ours, you know? That's the food we eat, that's how we grew up, you know. Our family taught us that. And whenever we come together and we go out as a family, we eat what we can. We don't bring it back home... That's what we got taught. I don't agree with it (the bushfoods industry). It's just like our... That's going to be taken away from us, you know?! We grew up with that when we were little kids. You know, look at us now – **we're adults. We now need to pass it down to the younger generation. Like, we don't put it in books... That is getting exploited all over the world. Like, they could come to us, they can taste it, we'll go and show them, but to be in jars, in bottles, you know, it's different. Yeah.***

(Interview with Ruby Saunders; Ceduna, Oct. 2007)

IK/TEK is at the base of bush produce activities, product, and enterprise development. This needs to be understood, respected, and protected if livelihood benefits are to be maximised for local Aboriginal people (Schreiber, 2002). People fear loss of their intellectual property and want to know how to protect it:

*We have to be careful about what we tell which people – **so people don't steal our ideas and/or our customers and cut our business out;** (we) worry about other people coming into community and making changes to suit themselves, cutting us/our share out of the picture.*

While there has been talk of local logo and trademark design and use, much of the knowledge relating to this has been provided through internet-based searches facilitated by the WestCan coordinator. As Cunningham *et al.* (2008) identified, certification and cultural branding offer important marketing strategies to the developing bush produce industry, and encouragingly RIRDC recently completed a pilot study on the development of an Indigenous Fair Trade system (Spencer & Hardie, 2011). This is an important step towards a national standard for TEK/IK certification. The branding of products is important to a continued sense of pride and ownership that it is hoped will facilitate cross-cultural acknowledgement and respect:

People didn't know about us before – now they're asking for our help for revegetation: (we're) getting respect from people outside community, in towns: acknowledgement and appreciation of people and their skills; demand for the products and Aboriginal culture. ...Bring back respect and pride to us as a group of Aboriginal people.

Cunningham, *et al.* (2008) also suggested the adaptation of 'People's Biodiversity Registers' (Gadgil, 2000) to Australian conditions, to facilitate community level species monitoring and help protect traditional knowledge. Importantly, the incorporation of local views of plant and resource use and management into regional Natural Resource Management plans helps enhance awareness among the broader community about the extent of Aboriginal **knowledge of plants, and the recording process would "raise local awareness about access and benefit sharing in a realistic way"** (Cunningham, *et al.*, 2008; p. 437) - creating a conducive environment for future BCPs (Natural Justice, n.d.). Such a system could help allay fears of a loss of control regarding local knowledge and plant varieties, as well as fears of over-harvesting:

Genetically modified food plants are being grown in the gardens. Wild seeds/plants have been developed off-site to maximise production quality and quantity. Some food plants growing in the garden are not local species; whereas, seeds for the nursery plants have been sourced from the local wild population.

(Non-traditional) legal rights and permits to wild-harvest lessen the wild stock so we have to travel further away to harvest.

Producer Communities

need to be based on local institutions, develop from informed choice, and provide cultural and emotional support

There is need for support of mentors/intermediaries who can facilitate knowledge and information transfer and sharing, including business skill development – however, the mentors need to be locally based, trusted, and work in a coordinated/collaborative fashion. Rather than viewing the local through the lens of a regional economy with the idea of a standard horticultural approach, the diversity of interests across various bush produce enterprises, in various modes of involvement needs recognition and facilitation. There are frustrations regarding externally designed models of engagement (particularly in bush foods horticulture).

In contrast, WestCAN developed a local network model conducive to the needs of many, and aligned with local Aboriginal modes of production and development, including respect for the knowledge and continuing engagement of community Elders. Such enterprise models offer scope for development of producer organisations that value local ways of knowing and being (Botha *et al.*, 2006), creating situations conducive to peer learning and motivation, and would allow for greater marketing leverage (Wynberg, 2006), as well as a coordinated approach to deal with varying land and resource tenure (as suggested by Cunningham *et al.*, 2008) (ref. also DK CRC research into arid networks: McAllister, Holcombe, Davies *et al.*, 2010):

Having a network of people to call on for support when you need them; a barter system of help; easier ability to talk and communicate both within and outside the group/network; a new group of people to socialise with and get to know better; trust between people in the business network.

Need to have the worth of the Elders' input seen and appreciated. Perhaps encourage the role of the Elders so they have more chance to participate/play an active role. Opportunities to openly talk about enterprise concerns and ideas are very important.

People are particularly keen to promote opportunities that facilitate the transfer of traditional knowledge to the younger generation: **"Giving something to our grannies – for future generations"**. This needs to be fully appreciated when considering the development of bush produce industries, and could again be promoted via the development of **"People's Biodiversity Registers"** (Gadgil, 2000), or similar systems designed to document and promote TEK/IK (see Sen, 2005 for a discussion of diverse examples from India). The seasonal wild harvesting of foods should be facilitated alongside horticultural ventures, as wild harvest is of continuing importance to local Aboriginal livelihoods. Garden and growing models are needed that better allow for Elders to be involved and their knowledge respected and incorporated. More holistic models such as permaculture (Holmgren, 2004) would help with TEK/IK inter-generational transfer by encouraging local school involvement in bush produce enterprise activities, which could help overcome inter-generational conflict and feelings of disengagement (that may have also triggered acts of vandalism towards infrastructure in the present case study):

The younger generation are losing interest and have no respect for Elders, other people or themselves. They have no 'reason to live' and don't respect other people's possessions. They have no respect for 'Law' or 'Lore'.

The younger generation is losing interest in our culture and future; loss of cultural knowledge that is dependent on continued connection with the bush. We are concerned that horticulture may cause people to lose their connection with the bush, by people staying in the community and not going out on bush trips.

External Partnerships

DK-CRC; UniSA; TAFE SA;
Outback Pride; volunteers

need to be based on trust, respect, reciprocity, and provide professional support

With changes to CDEP, people are looking for long-term reliable income sources, and some people are leaving the area in search of work/for work. The question is how to develop the local-level bush produce industry to ensure Aboriginal livelihoods retain their rightful place within it. There is an important role to be played by NGOs and private sector alliances in this regard – in particular, those which are locally based (Botha *et al.*,

2006). Providing links enabling the development of a range of livelihood assets, such alliances can help overcome local-level frustrations and concerns (ref. Jawun, 2010 for more information on examples and benefits of Indigenous partnerships with corporate and philanthropic organisations occurring in Aboriginal communities in Queensland, NSW, and Victoria, including the importance of on-site secondment of skilled people to mentor/develop local capacity):

Teach, learn our kids to get involved so they grow to see they have a future. Try to engage youths who are perhaps looking for something more/an opportunity. Possibly work with the school to do this.

Maximise the return to the community/local market, through activities such as landscaping, visiting schools, and value-adding on-site. Further investigate ways to develop and market a range of products.

Collaborations occurring in the case study included: those aimed at helping with product diversification and development of the local market (UniSA, DK-CRC); partnerships building a horticultural skills base (TAFE SA), providing on-site professional mentoring, and guaranteed access to broader domestic and international markets (*Outback Pride/Reedy Creek*); as well as connections creating opportunities to become involved in industry research, including the development of IP protocols (UniSA, DK-CRC). Each of these external partnerships is based on long-standing social relations, built on mutual trust and respect, and reciprocal responsibility agreements and understandings:

TAFE courses on bushtucker gardening; much help from key people (e.g., Phil Landless and Mike Quarmby); learning to identify different species of plants (e.g., what plant suits different situations); getting more knowledge and understanding about what we're doing as time goes by, to pass on to others; people are always learning and passing on knowledge.

Broader Market

needs to be based on informed/appreciative consumption and contribute to cross-cultural respect and reconciliation

The limited financial return to date can be seen as a result of a number of factors, including: the fledgling state of the market, locally, domestically, and internationally; the reliance on CDEP as a base wage; and, the seasonal nature of most payments for raw produce:

*Some people don't receive financial return for their effort, so there is no monetary incentive for the hard work done. Payment in the community gardens is primarily through CDEP; additional income possible during harvest periods (\$20/kg for *Solanum Centrale*); however, all extra money earned during the harvest is spent on running costs (incl. water), so people feel the financial return is not enough for the effort they put in.*

CDEP payments, although providing a part-time weekly wage, have not been sufficient for the workload:

Janelle: *So, you're not making much out of it* (i.e., being involved in bush produce enterprise).

Edwin: *No. But if we had a proper gang who would work five days a week, ...'cause there's a lot more things we could do to it to make it grow better and produce more fruit. But the way it is now, we just can't do it. ... When we first started, it was like everybody wanted to get on board, you know. But then, as the years passed, everybody just nearly forgot about it. We've been on CDEP for the last couple of years, with a gang to work five days. When we first started, we worked for nothing. We'd do our two days CDEP, then work the rest of the week for nothing...just to get it going. (...then, speaking about the large Koonibba plot of bushfoods currently not being tended): You can't work it...see, you'd need to work all week.*

Kym: *Yeah, right through the whole full week, not two days. It can't work for two days. Makes it hard for us.*

(Interview with Edwin Carbine and Kym Mundy; Koonibba, Oct. 2007)

External partnerships have contributed to financial capital by helping to diversify the product base, and expand market demand and reach, through providing funding and/or expertise. However, as Jawun (2010) reported, more long-term partnerships are needed for sustainable enterprise development, and may require (government) subsidies at least in the initial stages of enterprise development, due to the limited nature of some bush produce markets.

At the same time, further market research and development is needed. Chris Mara, chairperson of the Coles Indigenous Food Fund (CIFF), advocated the importance of building a demand-driven market to maximise beneficial returns for labour and produce, and spoke of two major hurdles to overcome in developing a broader native foods market:

1. **most people still don't know what the foods are (Chris: "the bushtucker-man syndrome – they think it must've just crawled out from under a rock")**
2. **most people don't know how to use it – (Chris: "what do I use it for?")**
(pers. comm., Sept. 2008).

Mara explained that this requires building consumer confidence, which takes time, and then during periods when there is a lack of produce, (like with the bush tomatoes during drought conditions of 2007/2008), the risk is that "the converted will stray":

The question is how best to promote these foods within the "noisy" supermarket environment, where many products vie for people's attention and the consumer tends to be brand and/or price-driven. The economies of scale mean that there are less bush food product types so they are also usually more expensive (ibid.).

Mara said he likes the term “edible reconciliation”, as he believes there is a genuine desire amongst consumers to continue on the path of reconciliation²⁰ (“post-Sorry”)²¹, and there really is an interest in developing and experiencing “authentic Australian food” (*ibid.*). For Indigenous Australians to have an on-going role in the market development of bush foods/native foods, branding and certification will be particularly important, as previously mentioned:

To generate cash-flow, economic activities need to intersect with the mainstream economy where they will face the normal commercial pressures of competition and bargaining. A certification mark offers the opportunity for customers and end-consumers who want to support Aboriginal enterprises to preference these products with their buying decisions. Fairtrade labelling (for example) has shown that there are consumers willing to seek out and pay more for products that support development goals.

(Spencer & Hardie, 2011; p. 60)

Government Support

Focus on mining and tourism; CDEP changes

CDEP and Abstudy payments have buoyed local Aboriginal people’s involvement in the various bush industries to date; however, changes to the national CDEP program (ref. Australian Govt., 2008) mean alternative sources of funding need to be found.

The federal government (DEEWR) has taken a ‘solutions broker’ approach, somewhat aligned with the Jawun (2010) model of facilitating networks and partnerships between industry players and Indigenous organisations, which may prove a more flexible approach to overall bush produce industry development. Still, as the Jawun report highlighted, long-term

²⁰ Recommendation 339 of the RCIADIC stated that all political leaders and their parties recognise that reconciliation between the Aboriginal and non-Aboriginal communities in Australia must be achieved if community division, discord and injustice to Aboriginal people are to be avoided (RCIADIC 1991, vol V, 146). In 1991, the Commonwealth Government enacted the *Council for Aboriginal Reconciliation Act*, and over the following nine years the Council undertook wide-scale consultation to produce documents representing aspirations and ways to achieve Reconciliation (ref. Council for Aboriginal Reconciliation, 2000). Recommendations included increased recognition of Indigenous peoples’ rights through a treaty process; however, successive governments have focussed on ‘practical reconciliation’, rather than a rights-based approach - thereby failing to address and resolve the ‘underlying issues’ from the colonial legacies of dispossession and disempowerment, as perceived in the RCIADIC (ref. Nettheim, 2007).

²¹ In May 1997, the Human Rights and Equal Opportunity Commission tabled a report entitled *Bringing them Home* (Commonwealth of Australia, 1997). This report acknowledged that “Indigenous children have been forcibly separated from their families and communities since the very first days of the European occupation of Australia” by governments and missionaries. The children who were removed came to be known as the Stolen Generations. On 13th February 2008, the Australian Federal Government formally apologised to the Stolen Generations. The then Prime Minister, Kevin Rudd, apologised to Australia’s Indigenous peoples, their families and communities, for laws and policies which had “inflicted profound grief, suffering and loss on these our fellow Australians”, and included a proposal for a policy commission to close the gap between Indigenous and non-Indigenous Australians in “life expectancy, educational achievement and economic opportunity” (ref. *Apology Transcript*, available at: <http://www1.aiatsis.gov.au/wxhibition/apology/sorry.html>).

links with private enterprise/corporate investors and philanthropic organisations tend to be more conducive to building capacity based on local hopes and aspirations, rather than externally-controlled approaches based on policy-driven mandates.

Through their work with the bush food gardens, the Quarmbys (*Outback Pride*) identified a need for the support of people at a coordinating level to help with long-term sustainability of the gardens. They suggested this support be provided by the (state) government. Also calling for an increase in state government resources, the MLCS (2008) regional economic plan suggested the development of incorporated economic development organisations, a collaborative inter-community business network and cooperatives offering mentoring opportunities, with a focus on partnerships between Indigenous and non-Indigenous enterprises. This focus on partnerships and relationships would (again) appear to align with **the Jawun (2010) model; however, local Aboriginal people's involvement in developing** such a structure is crucial to ensure local circumstances and aspirations are understood and respected. As the Jawun model emphasised, successful partnerships are based on building on-the-ground relationships, customised to the local situation, building long-term inter-generational commitments through skills and leadership provision that builds mutual pride, motivation and enthusiasm. With a local economic development focus on mining and tourism opportunities (MLCS, 2008; PIRSA, 2004), links to corporate organisations in these fields could lead to more stable and flexible systems of professional and financial support (Jawun, 2010).

5.1.5 'Value, Contribution, and Shortcomings' - Adaptation of the SL Framework to the Far West Coast

In keeping with one aim of this research, the following are observations on the development process of a Sustainable Livelihoods Framework suitable for use with Aboriginal people living in the arid region of Australia. They are based on the research process with the Ceduna-based focus group/workshop, Oct. 2007, and the review of the draft SL framework (**Figure 7** in Chapter 2):

- Socio-cultural capital is heavily linked to human capital and well-being, including self-pride and self-worth
- Social and cultural capital seem naturally aligned in **people's responses** – i.e., each affects the other

- While people recognise the importance of 'psychological capital' (including motivation and feelings of enthusiasm), the word 'well-being' is preferred to 'psychological', and this aspect fits in well with the general health of people discussed under human capital
- Natural and physical effects are closely aligned
- Institutional capital is spoken about mostly in terms of the support of family and friends, as well as the greater enterprise network, and the effects of external organisations on education, the number of workers, and payment/employment. Perhaps institutional capital is naturally subsumed by socio-cultural and human capital – (although it is difficult to say for certain, as 'institutional capital' was not spoken about, as such, within the focus group, due to lack of time)
- The multiple-asset structure is thought to be accurate in depicting the variety of benefits being realised.



WestCAN members, Ceduna focus group workshop, October 2007.



Patricia Gunter and her daughter, Kelli : emotional support provided by family members and intergenerational knowledge transfer.



**Cultural knowledge at the basis of enterprise:
Healing massages using bush medicine**



Inter- and intra-cultural respect and recognition: local community members enjoy learning about the bush produce and services offered by West CAN members.



Aiding the cross-cultural educative process: community Elder, Joy Haynes, providing socio-cultural information

5.1.6 Up-date visit: two-and-a-half years later (in February 2009) - What has changed?

Diary of a PhD

9.02.2009 (Cafe, Ceduna)

I know I'm back here for a reason – i.e., to make sure the process of research is honouring the people with whom I'm working. I can't simply gather data and write it up without giving people the full ownership of such data. People (outsiders – like me) constantly come, look, get an impression, go away and write reports based on such short-term impressions. The next stage, people read those (often wildly inaccurate) impressions and make judgements and decisions accordingly. This is the reason why I have had to return to the field – to ensure the conclusions I am drawing match with those of the participants (my co-researchers).

Scotdesco:

A giant wombat, cafe tables/chairs, and cappuccinos... Signs of an enterprise gaining momentum! The garden plot has been moved to an area where it will be watered by community grey-water. The original field was too far from water sources and the exposed region was too windblown for crops to grow. The community is now receiving guidance and advice from a horticultural expert arranged through the TAFE. A recent community installation of a rainwater harvester is promising to alleviate some of the former water issues. Cropping (wheat) has stopped on the wider farm due to bad seasons/dry conditions. TAFE SA are working on-site with local interests and projects based around tourism, cultural enhancement, cross-cultural awareness (linked to mining), with possible future bushfoods incorporated into this.

There is a very positive vibe to the place, with people making cappuccinos after recent completion of a coffee-making course that now sees them attend broader community functions and set up a mobile cafe. People are learning language²², running cultural camps with schools, building a range of skills and individual confidence. Bushfoods and medicines are shown during workshops with mining recruits. Monetary returns to date are (still) minimal in comparison to the increasing socio-cultural returns.

²² The Wirangu language is an extremely endangered language, with a very small number of full speakers of this language living at Scotdesco. Gladys Miller and her family have been working with linguists from Adelaide University since 2004 to produce printed and digital books for use in local schools. The language was originally spoken by the Wirangu people living on the west coast from Streaky Bay west to around the Head of the Bight and inland to Lake Gairdner (Hercus, 1999). Cultural enterprise and activity development have the potential to enhance language use and maintenance (ref. http://www.scotdesco.com/scotdesco/wirangu_resources.htm).

Koonibba:

Oh no... I can't help you grow anything. I'm a social scientist.
(The author's own frustratingly academic response to the Koonibba CEO)

CEO, John Thomas, speaks of the frustration in having numerous bodies (individuals, departments) constantly doing research and funding particular aspects of things..., but nobody seemingly collaborating or working together. He says lack of coordination is a big factor contributing to local level confusion, disappointment, and frustration with lack of progress in various projects. He speaks of the lack of responsibility shown by community members towards the garden, believing the recent loss of water from community tanks to have (perhaps) been the work of young vandals. The garden died over the Christmas break when people were away, and since then tens-of-thousands of litres of water have disappeared from the community water tanks. John thinks individual and/or family-based ownership of the garden may help with responsibility, but asks whether bushfoods are viable anyway? He is sceptical, asking whether building and farming enterprises would not offer greater economic sustainability. It is refreshing to report that Kym Mundy and his brother are still keen to keep the horticultural dream alive, despite the current setbacks.

Dynaline:

It's disappointing to see the garden deteriorating after all the effort and love put into it prior to 2008. (Jeanie Carbine, pers. comm., Feb. 2009)

Community-level issues have put the bushfoods garden on hold. All ideas spoken about at the 2007 workshop remain, but outcomes are yet to be fulfilled. Some people may move into mining instead, if things do not progress soon.

Ceduna:

*Why is it that our people seem to face a barrier when it comes to accessing and keeping jobs? Whether they want a job on the Ceduna main street, or whether people want to build their own enterprise, people can have all the motivation and inspiration in the world, only to be faced with inter-racial barriers that stem from lack of information, lack of knowledge, and lack of respect. Our young people often feel completely isolated when employed in a whitefella business... How do we overcome this? The feeling of a minority, prejudged by the majority – **the 'all Aboriginal workers are thieves' mentality.** How can our people succeed in the face of such (blatant) prejudice/racial discrimination? What is the answer?*
(Elder, Joylene Haynes, pers. comm., Feb. 2009)

Joy has not made her bush rub lately, as her 4WD needs fixing. She is also busy supporting many young people, encouraging them to 'have a go' **and make the most of life's** opportunities. She is a humble crusader against local marginalisation, drug and alcohol abuse, teen suicide, and widespread health issues.

As the above snippets demonstrate, there remain a range of local contextual factors influencing bush produce involvement and livelihood returns. While relationships conducive to skill development and employment have occurred (TAFE SA and mining companies with Scotdesco community), others are suffering from lack of information/options and frustration with the uncoordinated bureaucratic process required by governments (Koonibba community). In addition, community-level issues are creating barriers to enterprise success (Dynaline and Ceduna). The variety of concerns and strategies evidenced in this case study demonstrate the importance of localising approaches to facilitate bush enterprise involvement, while at the same time supporting the broader rights-based agenda needed for long-term societal change:

'Reconciliation' is good in pure theory, but the term has been abused and (mis)used.

Knowledge is key; education is paramount; shared experience is essential.

(Elder, Joylene Haynes, pers. comm., Feb. 2009)

5.2 Stories from the Anmatyerr region, Northern Territory

5.2.1 Research setting

HISTORY, SOCIETY, AND CULTURE

The Anmatyerr (Anmatjere) region is centred around the township of Ti Tree, approximately 200kms north of Alice Springs on the Stuart Highway. It covers an area of approximately 4,000 square kilometres, bounded by country of the Alyawarr people to the east and north, the Kaytetye (Kaytej) to the north, the Warlpiri to the west, and the Arrernte to the south (Maurice, 1987). (ref. **Figure 32**)

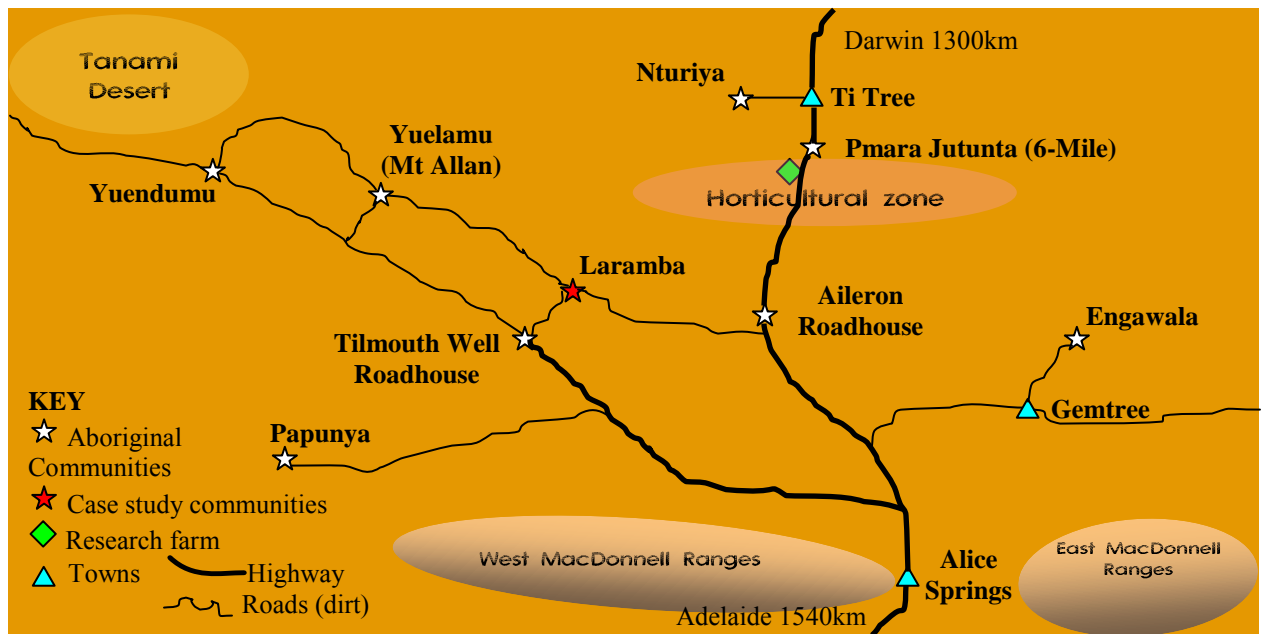


Figure 32: Map of the Anmatyerr region. (Note: Not to scale; distances approximate)

The total population of the region was recorded as 1137 persons in 2006, with Aboriginal people comprising almost 90 per cent (ABS, 2008). The Anmatyerr language is considered to be a dialect of Arrernte (Koch, 2006) - the language group occupying lands to the south of the Anmatyerr territory, including the city of Alice Springs – and is widely spoken by the **region's** Aboriginal residents.¹ The main communities are located south and west of the town of Ti Tree, on small areas of Aboriginal-owned land excised from pastoral leases, and include Pmara Jutunta, Laramba, Nturiya, and (south-east) Engawala. Laramba is the main focus of the case study, although discussions and a workshop also took place with residents of Pmara Jutunta involved in commercial horticultural training.

¹ 56 percent listed Anmatyerr as the language spoken at home in the 2006 census (ABS, 2006).

The colonial history dates from the late 1800s when the Overland Telegraph Line was constructed, from Adelaide through to (Port) Darwin, following the route that central Australian explorer John McDowell Stuart had taken in the early 1860s. The line became the main route by which non-Aboriginal settlers moved into the central Australian region, bringing their livestock to settle the lands. The Anmatyerr country was particularly attractive as it was relatively rich in water, game, and plant foods (Young, 1987), and a telegraph repeater station was set up at Ti Tree well. Ti Tree township was established as a watering point for cattle being driven overland to markets in Queensland and the top end of the Northern Territory.

Anmatyerr territory soon came under increasing pressure from the pastoralists – especially when drought caused competition for water supplies. Anmatyerr attacks on Barrow Creek telegraph station (1874) and a regional homestead (1883) led to reprisals that caused **“population dispersal”** (Young, 1986). Strehlow (1971) described a policy of **“pacification” during the 1880s, wherein “settled areas were quietened, and organised tribal resistance broken by the liberal use of rifles and bullets”** (p. xxxiii). In 1901, Spencer (1928) commented on the relatively small numbers of Anmatyerr people, and how the population had been almost **“wiped out”** (p. 412). Further severe regional droughts in the early 1900s (Meggitt, 1962) led to increasing violence between settlers and local Aboriginal peoples, culminating in a massacre on Coniston pastoral station in 1929 (Holcombe & Sanders, 2007; see also Cribben, 1984). The continued alienation of Anmatyerr land saw people increasingly congregate near cattle station homesteads and begin to work on the stations. Holcombe & Sanders (2007) described the **resulting complexity of historical relations involving “acceptance of pastoralist’s patronage, with traces of ambivalence”** (p. 340; see also Rowse, 1998). Napperby station (from which Laramba community is excised) was established during this period of violence and conflict in 1919, with the homestead located near to a permanent waterhole where Anmatyerr had previously met for large ceremonial gatherings (Young, 1986).

POPULATION, ECONOMY, AND INFRASTRUCTURE

Today, the Stuart Highway remains the main north-south transport artery in the NT, running through central Anmatyerr country. The township of Ti Tree services the region, with a school, health clinic, roadhouse, art gallery, and police station. The Central Desert Shire is also located in the former Anmatjere Community Government Council buildings.²

² “The Anmatjere Community Government Council (ACGC)...was established in 1993 as part of a push by the northern Territory Government towards larger regional, multi-settlement groupings within its emerging local government system (Sanders, 2008). In July 2008, the ACGC was amalgamated into a much larger Central Desert Shire, covering an area of approximately 283,000 square kms. (ref. <http://www.centraldesert.nt.gov.au>)

The most common form of land title in the region is pastoral lease, although the land around Ti Tree is Aboriginal freehold held by the Ahakeye Land Trust (ALT) under the Aboriginal Land Rights Act (NT) 1976. Underground water is a significant natural asset and the Ti Tree ground water basin lies to the south of the township, where extensive horticultural ventures have developed; in particular, table grapes.

There are high unemployment levels throughout the region, with 14% overall but up to 50% in some communities (*Anmatjere Regional Development Plan, 2002-2012*). Aboriginal stockmen, although integral to setting up the regional pastoral industry, are now largely redundant. The largest employment source in the region has been government (including CDEP), followed by the health/community services sector (*ibid.*). Ingamells, Holcombe, and Buultjens (2010; p. 8) reported the weekly individual income of non-Aboriginal residents was more than three times **higher than local Aboriginal people's incomes (\$768 and \$213 respectively)**, both fuelled and fuelled by social and economic stratification (*ibid.*). Attempts to involve Aboriginal people in the local horticulture industry have seen about forty Anmatyerr and Warlpiri men and women participate in horticultural training programs through CDEP (Ingamells *et al.*, 2010); however, long-term viability of the industry remains uncertain (*ibid.*).

Regional tourism activities are relatively limited, with facilities at Gemtree on the Plenty Highway allowing tourists the opportunity to fossick for garnets and zircons. Red Sands art gallery in Ti Tree and an art gallery at Aileron Roadhouse both sell Aboriginal arts and crafts to tourists travelling the Stuart Highway. Tilmouth Well Roadhouse on the Tanami highway also sells paintings, artefacts, and bush jewellery made mostly by the Anmatyerr people in Laramba, but also by Pintupi from Papunya and Warlpiri from Yuendumu.

BUSH PRODUCE INDUSTRY DEVELOPMENT AND INVOLVEMENT IN THE REGION

Laramba

Laramba community is situated on a freehold excision from the Napperby pastoral station. The community was established in 1983, moved from the station homestead to its present location, approximately 3.5kms east of the homestead, in 1984, with freehold title gained in 1992. Many Laramba residents are former pastoral station workers, having worked in the South Camp at Napperby Station, living in humpies near the soakage. The population fluctuates, according to season and ceremonial activity, but is generally around 350 people (RAHC, 2009).

Bushfoods

Approximately 30 women living in Laramba community wild-harvest bushfoods for commercial return [particularly *akatjerr*, (desert raisins/bush tomatoes), and various acacia seeds]. Roy and Janet Chisholm own the pastoral lease and often organise the commercial harvest. Janet is the agent for the Australian Foods company, which is associated with the *Outback Spirit* supply chain (see Chapter 4). People also collect produce independently. The harvesters are mainly middle-aged and Elder women, who pick and fill their own bags. The Elders described the commercial wild-harvest as hard, hot, serious work, with picking sessions often lasting from 8am to 5pm. People reported camping out and keeping children away from areas at such times, to help maximise return for effort (Amy Peltharr, pers. comm., Oct. 2008).

Amy Peltharr spoke of the older men (husbands) helping out with harvests, often driving the vehicles. She collects *akatjerr* with her husband Peter, and her sister Daisy. The women are very skilled pickers, cleaning the fruit by rubbing them in the sand, removing the stalks and then picking out the black ones. The good ones are then washed with water. The collectors take three days to collect, clean and pack a flour bag full. Amy travels out for the day to collect and then comes back to clean, then out again... **"Bending over to pick is back-breaking work!"** She mostly sells to Alice Springs or Yuendumu (150kms north-west), driving far to maximise financial return. One flour bag reportedly sells for \$200-\$250. The return trip of 400km (including 180km dirt) to Alice Springs to sell, with the current price of fuel, means approx. \$85-90 is spent on fuel. Still, she prefers to sell in town where she can also spend the money from sales on food and goods priced more cheaply than in the community shop.

Interest shown in developing an *akatjerr* plot closer to the community has led to a focus for the secondary **women's class in the school and** the propagation of plants occurred in 2007 at the Alice Springs campus of Charles Darwin University. The plants were only planted in the school garden in mid-2008 after broken fences were fixed in order to keep cattle from straying into the garden and eating the produce. Both the bush tomatoes and several rows of domestic vegetables are watered via a timer system. Until now, vegetables have been used in cooking classes and the garden is sometimes used by students to give purpose to literacy and numeracy studies – e.g., measuring plant heights, setting timers.

In 2006, I spoke with Amy Peltharr about my studies and she was keen to have me attend and participate in collection of *akatjerr*, possibly after Christmas. However, there was no harvest in 2007, nor in 2008. Research has shown that good bush tomato crops occur in the wild only

every 5-8 years (i.e., a highly variable supply; Maarten Ryder, pers. comm., May 2006), with only minor harvests in between. Lack of rain, changes in the use of fire as a management tool, and competition from introduced animal or plant species have also been cited as adversely affecting production (Latz, 1995).

Bush Jewellery

In addition to the commercial collection of bushfoods, women in Laramba are also actively involved in bush seed and bean jewellery-making and selling - (refer to the pamphlet in **Appendix 1** and the accompanying DVD made by the Laramba beading ladies). This micro-enterprise is seasonal, like the bushfoods, relying most heavily on the beans of the Bat's Wing Coral Tree or Bean Tree (*Erythrina vespertilio*: from Greek, *erythros*, meaning 'red', referring to the flower; and from Latin, *vespertilio*, meaning 'bat', referring to the shape of the leaves) (ANPSA, 2010). Known locally as *inernt* (both tree and seeds) (Green, 2003), the seeds are usually available towards the end of the hot weather season (around Feb/March) after flowering at Christmas. As no substantial commercial harvest of bush tomatoes occurred during either 2006 or 2007, I decided to speak to the women involved in necklace and bracelet-making in early 2008. Sitting around fires in small family groups (often mothers, daughters, grandchildren, and dogs) I found women often busily making beautiful and intricate hand-crafted works-of-art out of a variety of gumnuts and seeds, and instantly became interested in learning more about the process of production and sale. Hence my research in Laramba became increasingly focussed on the bush produce enterprise that was occurring on-site at the time, rather than bush tomatoes which were the original focus but could be scarce for years at a time.

Australian Aboriginal bush jewellery has an extensive history. Archaeological evidence reveals that people wore necklaces made of string and snake vertebrae possibly more than 4-5000 years ago (Walshe, 2009). In the journal of his voyage up the east coast of Australia, Captain James Cook (1770) described the local people wearing bracelets and necklaces made of twisted hair, shells and bone. In the late 1800s, the anthropologist and ethnographer, Sir Baldwin Spencer, travelled through central and northern Australia studying the cultural traditions of Indigenous Australians. He collected seed necklaces made from human hair and Bat's Wing Coral seeds (Spencer & Gillen, 1899). Simak (2007) wrote that such necklaces were often worn by women on occasion of ceremonies centring on sexuality and fecundity, and that it was customary for men to also wear necklaces during their rituals. Necklaces and threaded objects were often made from shells, feathers, grasses, reeds, plant seeds, dried fruit, shark and snake vertebrae, snail shells, and various other materials (Hamby & Young, 2001).

Today, traditional stringing materials have mostly been replaced by elastic, leather, and wool. As Hanby and Young (2001) wrote, string is symbolic of relatedness - of people in general; of families in particular, and the giving of necklaces was also for the purpose of forming a bond or connection between people. Making necklaces is a seasonal activity (dependent on rainfall). Discarded plastic drink bottles, deep pockets, and tied-up skirts are often used as storage containers (*ibid.*). Decorative styles vary from community to community, as does the raw produce used. Hamby and Young (2001) reported that colours often have symbolic meanings, including red representing ancestral power; red and yellow, fire; green and white, rain and growth; pink and purple, sunsets and flowers; blue, waterholes and Christianity.

Inernt (*Erythrina vespertilio*) is one of the most widely used seeds in Central Australia (see **Figure 33**). Growing up to 15 metres high, the tree is deciduous in the dry season, with thorns on trunk and branches. Its distribution includes all mainland states, except Victoria, growing mainly in the north and north-east of Australia in open woodlands, but extending to arid areas of Central Australia and rainforest margins (ANPSA, 2010).



Figure 33: *Inernt*: seeds of the Bat's Wing Coral Tree (*Erythrina vespertilio*) and various eucalyptus seed pods are often used in making jewellery

In Laramba, through participant observation over a five-month period in 2008 (March to June & October), I was able to better understand the involvement and role of Anmatyerr women in the **bush jewellery 'industry'**. I found that one of the main ways people became involved in micro-enterprise was through family and inter-generational tradition and knowledge transfer. For

example, Kitty Peltharr Gibson (aged 70 in 2008) explained how her father taught her pastoral industry skills while her mother passed on the skills of collecting food and bush resources to shape into coolamon and music sticks – initially for personal use, then later for sale at the **pastoral station and a shop at Aileron: “Women made coolamons for carrying their babies; men made shields, boomerangs, and spears”** (Kitty Peltharr Gibson, pers. comm., March 2008).

Movement of the community from the station homestead to an area 3.5kms away corresponded with the time people started to sell more of their artefacts and necklaces to make money. This was around 1984. People had been selling seeds for food and regeneration earlier than this, to Yuendumu Mining³ and Alice Springs wholesaler Rod Horner during the 1970s. Rod explained how when he arrived in the desert in 1975, he was interested in exploring suitable economic development options for the arid region and its resident Aboriginal people. Working for the Department of Aboriginal Affairs from 1975-1979, Rod bought seeds collected by Aboriginal people throughout the central Northern Territory and sold them on to dealers. Today he buys from seeds from Yuendumu Mining, where Frank Baarda acts as an on-site agent (Rod Horner, pers. comm., May 2008). Wattleseeds, mulga seeds, river redgum seeds, bush beans and *akatjerr* are still collected for sale to Yuendumu Mining and Rod. Raw *inernt* (*Erythrina vespertilio*) are also sold at Yuendumu Mining, for \$10 - \$17/kg, with the price depending on demand (Frank Baarda, pers. comm., June 2008). Yuendumu Mining does not buy necklaces, but the nearby Warlukurlangu Aboriginal Artist Association does.

Nowadays, people travel to collect seeds and beans when there is transport available. Kitty explained: **“In the early days we used to walk everywhere! Now we use the car.”** Sometimes it is hard for people to get a vehicle to get out to Country. Recently, the NT Carers organisation lent a vehicle to the community to encourage people to take a break and relax by getting out on the land. The community-based Aged Care vehicle is now being organised for use by the Aged Care staff and carers to have trips to Country more often. People also travel to sell the seeds and necklaces they make, as there is no on-site art centre at Laramba. The closest point-of-sale is at the pastoral station, 3.5kms from the community, and the roadhouse, 35kms away, although many people now travel up to 200kms (to Alice Springs) to sell their produce.

³ The Yuendumu Mining Co. Garage and Store are located at Yuendumu Aboriginal community, approx. 150kms north-west of Laramba. Known locally as „Yuendumu Mining’, the organisation runs a small store, fuel bowser and garage, does occasional geological work, and buys and sells seeds and bush foods (Musharbash, 2008).



There is a wide range of seeds and beans used in making necklaces. Many are often painted in bright colours. These necklaces were made by Amy Peltharr Stafford, Kitty Peltharr Gibson, and Nola Peltharr Gibson.

Ti Tree region – Pmara Jtunta (6-Mile Community) and the Research Farm

Pmara Jutunta, known locally as “6-Mile”, is an Aboriginal community of around 450 people located 10kms (6 miles) south of the township of Ti Tree (RAHC, 2009). Many women (and some men) living in the region are involved in the commercial wild-harvesting of *akatjerr* (bush tomatoes) and acacia seeds. Some work at the local Ti Tree school, harvesting seasonally when produce is available.

Akatjerr is currently the main produce collected, but wattleseed (from mulga trees) used to be collected, although everything is weather dependent/seasonal. Fire and rain can also affect the wild crop. People in and around Ti Tree sometimes travel to Alice Springs to sell, or wait for local wholesalers, Peter Yates and Jock Morse, to collect the filled bags which they had previously supplied to the gatherers. Peter and Jock worked for many years throughout the region, collecting produce for their value-added produce, branded “Outback Bushfoods” and sold at various outlets in Alice Springs as well as nationally. Peter spoke of the erratic nature of the bushfoods business in general. When I spoke with him in 2006, he was waiting for a harvest that possibly would not happen, due to climatic conditions (12 inches of rain that caused no benefit to the harvestable crop). He and Jock have since withdrawn from bushfoods production, as financial returns tended to be as erratic as the produce supply. These inconsistencies in the value chain combined with socio-cultural, socio-economic, and historic

conditions that Peter said often worked against beneficial outcomes, (e.g., “pastoralism and fire farming don’t work well together: pastoralists don’t want fire, but this means there are no bush tomatoes!”) (Peter Yates, pers. comm., June 2008). Research participants didn’t mention their use of fire as a resource management tool; however, Latz (1995) recorded the importance of “fire-stick farming” to plant regeneration and long-term availability of bushtucker (ref. also Maclean, 2009 and Vaarzon-Morel & Gabrys, 2009 regarding the specific inter-cultural complexities of fire management in Central Australia).

Meanwhile, a community farm is currently being constructed next to the 6-Mile community, with sections for both domestic vegetables and bushfoods. During the research for an Aboriginal Horticulture Development Strategy for Central Australia commissioned in 1999 by the CLC and ILC, Aboriginal landholders in Central Australia were found to strongly support development of commercial horticulture projects on their lands, hoping such projects would provide benefits through income, employment and training (Sam Miles & Associates, 2001). The Strategy recommended that an Indigenous Corporation be formed to drive the development process and so a non-profit company, Centrefarm Aboriginal Horticulture Ltd., was established in 2002 (ref. <http://www.centrefarm.com>). Its current focus is on the development of training programs for the regional rural economy, and to negotiate business models to ensure control, ownership, and benefits remain with Aboriginal people (Centrefarm, 2008).

(Then) General Manager, Allan Cooney explained how he previously studied the history of horticultural ventures in numerous Aboriginal communities – focussing on the management-level structures that failed to provide a suitable, sustainable model. Based on his research, **Cooney saw the need for “lifestyle-based horticulture” rather than monoculture**, including the importance of meeting local market needs. To this end, Centrefarm has supported the training of young men and women in the Anmatyerr region, (predominantly people from Pmara Jutunta community which is closest to a research farm and established horticultural zone), and developed a horticultural approach in collaboration with the trainees and other community members.

The progress of this cooperative-style development of Aboriginal horticultural methods will be interesting to follow, with **initial thoughts focussing on expanding the local people’s role in the industry**: from harvesters and growers, through to processors and producers of on-site, value-added products and the distribution of such produce. The Northern Territory Department of Primary Industries, Fisheries, and Mines (DPIFM) operate the horticultural research farm and training facility 5kms south of 6-Mile, where training courses have taken place.

Cooney explained how Centrefarm is keen to build on the extant skills of people, and to have full-time training officers, including Aboriginal mentors. They are developing a horticultural precinct in the vicinity of Ti Tree (as of 2008) where it is estimated between 700-1000 jobs will be created; however, this could be still ten years away. These figures are also based on full-time equivalent hours; however, the nature of horticultural work is based on hours of activity and seasonal labour. The reality, therefore, is that for a few weeks a year, a mobile workforce needs to be utilised: **“We are skilling people now to do such seasonal work, including encouraging people to be mobile with their skills and to work elsewhere during other seasons”** (pers. comm., Allan Cooney, Aug. 2006). Based on my observations, however, it became apparent that while young men may not be averse to travelling off-site for work, young women often have children to look after and may not be as readily mobile as such work demands.

While Cooney believed the bushfoods industry will take decades to move into full, large-scale commercial production, he conceded the time is ripe for rapid changes in the industry, and feels that bushfood gardens located within communities should become part of everyday life, with on-site grazing to be encouraged (pers. comm., April 2006). The proposal is to develop a bushtucker business for the Anmatyerr Community at 6-Mile, based on the growing, purchasing, grading, reselling, and value-adding to a range of bush fruit and vegetable products that are either bush picked or cultivated in the Anmatyerr and adjoining regions. A number of Anmatyerr women have been involved in training programs at the Ti Tree Research Farm over the past few years, involving a range of conventional horticultural crops including vegetables and mangoes. In August 2007, the women expressed an interest in being involved in a bushtucker project. The women extracted seeds from bush tomatoes/desert raisins (*S. centrale*) and seedlings were grown at Tangentyere Nursery, Alice Springs. A steering committee was developed to plan and implement the program, with initial feedback from the women very positive towards the establishment of a bushtucker business (notes from Steering Committee handout, June 2008).



Newly planted rows of bush tomatoes, *akatjerr* (*S. centrale*)

5.2.2 Livelihood assets of the Anmatyerr region - in relation to bush produce involvement and enterprise development: participatory observation, individual and small group interviews, Action Research

This section details the effects on Anmatyerr **people's** livelihood capital/assets from their involvement in a variety of bush produce enterprises – including bush jewellery-making, wild harvesting of bush foods, and bushfood horticulture. The discussion begins by outlining the current effects of industry involvement, then looks at some of the desired future effects and the **steps needed to fulfil people's hopes. Based on six months of participatory observation and action research**, involving one formal and many informal interviews, the following discussion is organised around the same key assets identified at the Ceduna WestCAN workshop (ref. Section 5.1), namely: socio-cultural, human, natural, physical, financial, and institutional capital.

SOCIO-CULTURAL CAPITAL

Cultural support

The necklaces are made and sold by women, many of whom are aged 50-70/80 years. There are also a few younger women (30-40 years), who are often the daughters of the elder women. The collection of raw produce (i.e., beans and seeds from the bush) often occurs when there is an opportunity to travel (i.e., a vehicle is available/ or someone is going somewhere and has some extra room); although harvesting trips can also be pre-planned, for example when organised by the Aged Care Centre (again, subject to vehicle availability).

Women travel and harvest resources mostly in kin groups, travelling to specific areas on traditional country which are known for their abundance of the particular bush resources sought. Anmatyerr people harvest from Anmatyerr Country, travelling to different places and visiting different trees according to the type, colour, and size of produce wanted. When a productive site is found, time and energy are spent in gathering the available resource. Women usually work together to maximise their return for effort – e.g., by throwing sticks into the upper branches of the bean tree to knock down the larger pods (this is done when the beans are found to be of a desired colour and size; see accompanying DVD); however, collected produce is usually kept in separate groupings (carried in a variety of containers). Children who collect usually give their produce to their elder kin, either at this collection stage or after burning, so the individual ownership of the beans and seeds really begins at this stage. Different types of seed pods are often introduced through family travelling and bringing back bags of produce for use on-site – e.g., many people collect large gumnuts in Adelaide when they visit the Royal Adelaide hospital for treatment.

The next stage of production is cleaning, preparing, and burning the beans/seeds. The *inernt* (*Erythrina vespertilio*) are sometimes oiled (with baby oil) to make them shiny. The various eucalyptus seed capsules are filed smooth before being burnt. Whilst cleaning the seeds, the fire is prepared so that there is a hot coal base. Lengths of wire about 70cms long are then placed in the coals to heat. People usually have their own wires with which to work and when they are sufficiently heated, they are used to pierce the various seeds. The right combination of precision, speed, force, care, and gentleness will result in a hole burnt through the seed centre. Children sometimes join in, under the watchful guiding of Elders, however, burns amongst both adults and children are often reported at the clinic during the bean burning season! The beans burnt by children tend to be given to the Elder (grandmother) for use in her necklaces.



Burning the *inernt* (*Erythrina vespertilio*; Bat's Wing Coral Seed)

Eucalyptus seed pods and quandong seeds are often painted in a variety of bright colours, depending on available acrylic paints. Threaded onto wire sticks, many seeds are painted at the same time, thereby maximising the time spent on decoration. Several people may contribute to the making of one necklace – e.g., pods may have been painted by other family members; beans collected and burnt by one person may be given to another to make into something (but then the sale of such items can mean the money goes to the original collector – e.g., as observed in the making of mats).

After burning, the *inernt* are cleaned (usually washed in a little water to remove the black from burning), sorted into colours: black (i.e., a rich dark red); red; orange; yellow; white (i.e., a pale yellow), then threaded onto wool or elastic to form necklaces or bracelets. These are often worn for a time, then stored (e.g., in containers under beds) until the opportunity arises for sale. If kin are travelling into town (i.e., Alice Springs) they are often given necklaces to sell. Most individual necklaces are kept until there is a sufficient number to sell at the same time. Kitty Peltharr explained that the skill of necklace-making was thought up by herself, and similarly, her daughter Beatrice taught herself beaded mat-making techniques.

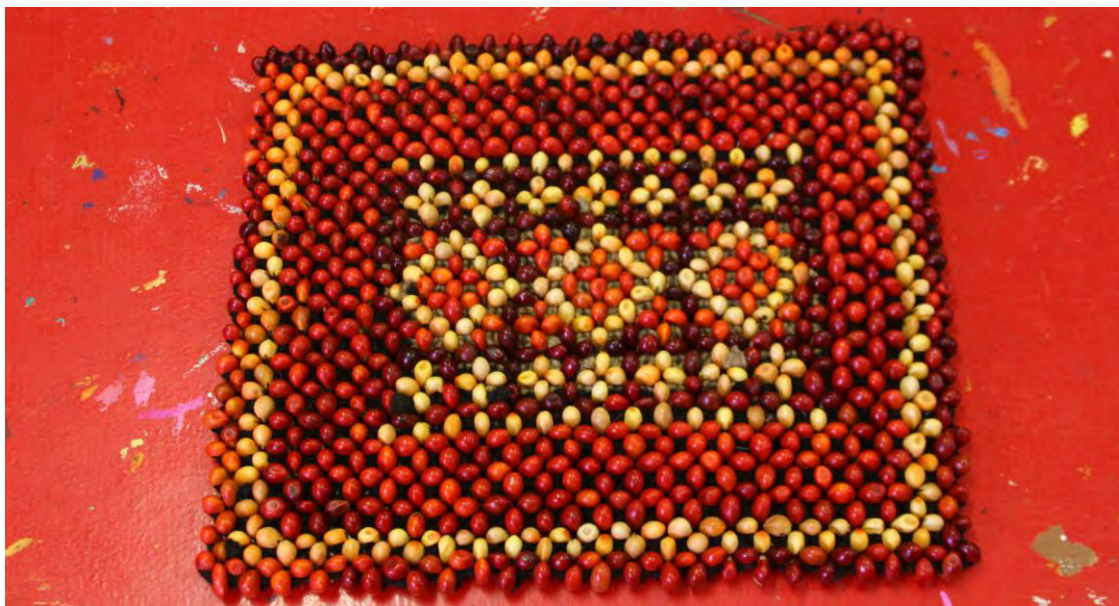
Sometimes the raw seed is sold in Alice Springs or Yuendumu, although most people prefer to value-add and use them to make jewellery. Those raw seeds that are sold meet a demand from town-based Aboriginal people for jewellery-making produce they may not otherwise be able to source. People are not always able to travel to the sites of bean trees and the few trees growing in Alice Springs are in high demand from local residents, so the influx of raw seed into some of the stores in Alice is a welcome sight for many, especially Elders who may no longer be mobile enough to travel to Country. One store in Alice Springs particularly known for raw seed sale said that 90% of its customer-base is local Aboriginal. The store buys 20kg flour drums of seed brought in from communities to the northeast and northwest of Alice Springs, paying \$600 per drum on average. They then package the seeds up into large and small sized sandwich bags which they then sell for \$20 and \$10 respectively. Sometimes the beans are re-purchased a week or so later for a higher price when people return them to the store with holes burnt through them. This commercial trade generally supplements an extensive kin-based system of bush produce exchange that allows people access to a wide variety of nuts, seeds, and pods from all over Australia.

An important cultural consideration is that the *inernt* features in Aboriginal mythology. Anmatyerr country is associated with *Altyerre* (Dreamings) and *Altyerrengge* (Ancestral beings), containing sites marking the scenes of ancestral travels and activities, which are recorded in stories and songs depicted in ceremonies (Maurice, 1987, p. 11). Groups are linked to particular areas or country according to descent principles which accord certain interests, rights, and responsibilities. Each country is associated with a pair of subsections/patricouples who have rights to country and share their subsection affiliations with the *Altyerrengge* ancestors (Avery, 1987).

The Anmatyerr subsection system consists of eight social categories, often referred to as skin groups, which have corresponding skin names. These names are in addition to other personal names, such as Christian names and surnames. Anmatyerr people are born into one of the eight groups and so acquire a skin name “which is part of a complex system of social labeling locating an individual within the interconnected systems of kin and country” (Green, 2000; p. 79); expressing relationships between people, land, and *Altyerrengge* (Avery, 1987).

There is an *Altyerrengge* story relating to the bean tree, with a song, belonging to women.⁴ There are groups of owners and managers of the song and its corresponding *Altyerrengge* site, inheriting cultural rights and obligations through their respective skin-groups/subsections. Within this system, the red beans are of the *Ngale* skin group, whilst the yellow are *Mpetyane*. These skin names and subsection system provide a means of labelling a very complex, spiritually-based relationship. People are intimately connected to the seeds and their related *Altyerrengge* (ancestors and Country), which are recognised as kin, with the ensuing obligations and responsibilities based on reciprocity and respect (Avery, 1987).

Another cultural practice was followed while making earrings and necklaces to sell in Alice Springs: the word “jewellery” became *kumanjayi*– (i.e., the word needed to be replaced with another word, as a person with a similar-sounding name passed away). Anmatyerr people follow a tradition of prohibiting the use of personal names and images in referring to deceased Aboriginal people. **We decided to change the word “jewellery” to “bush beads” as a result.**



The making of beaded mats is a specialised skill, now practised by few. This beautiful mat was made by Beatrice Gibson.

⁴ Ref. Laramba Bush Beads DVD supplied with this thesis.

At a workshop held in Ti Tree in October 2008, six women (two Elders and four young women) from Pmara Jutunta (6 Mile) talked about the different and varied effects experienced from their involvement in commercial bushfoods wild-harvesting over the years. Benefits mentioned included the teaching of culture through the telling of stories and the learning of traditional harvesting and processing techniques, as well as the enjoyment of eating bush tucker locally and the enjoyment of working together in groups.

Still, the women also feared the loss of some traditional stories, dances, skills, and knowledge due to them not being passed on to younger generations. Everyone spoke strongly of the role of the Anmatyerr Elders in knowledge transfer and skills development. They asked whether Elders could be involved in any horticultural course and on-going training. The Elders have years of experience in commercial bushfood harvesting and generations of experience in specialist harvesting and processing techniques. The younger women asked for these skills to be respected and to play a role in future horticulture training and skills development. The Elders present were keen to be actively involved in horticulture to help with cultural knowledge transference.

Emotional Support

While there are many informal family support networks to facilitate production and sale of items, no formal organisational structure exists to provide emotional support (e.g., community art centre) – although, the Aged Care facility is being considered in terms of developing its capacity to be a focal point for emotional support. Practical support such as that given by the NT Carers needs to be expanded. They have established a vehicle-lending arrangement with several local communities. Based on a roster system, this arrangement helps coordinate transportation to harvest sites, encouraging people to take a break from their caring duties to travel to Country to hunt, gather, picnic and socialise.

People are visibly more confident on their own Country, especially when they know and trust the person they are directly dealing with. Having a mediator or someone to take on the role of cultural liaison can really help smooth connections to new people and/or unknown situations. Outside of official art centres, sales transactions are open to abuse as there are no rules or regulations to protect the artist. Such transactions depend to a large degree on the individuals involved, with power structures based on historical legacies, often limiting Aboriginal people's voices in terms of bargaining power for maximising returns. Having witnessed a number of sales transactions, those that took place in the Aboriginal owned and governed art centres were

the most respectful, enjoyable, and financially rewarding experiences for the artists, as their individual works were admired and valued according to time, effort, and skill. Each artist was treated with respect and information actively shared. The artists were also asked what prices they expected and were shown other designs and works that could help them develop their own ideas. During such transactions, the emphasis was on the artist and their individual interests, needs, and abilities. The encouragement given to create such art and crafts ultimately imbues a true sense of worth in the artists involved, helping to strengthen culture by validating the work of the Elders.

In stark comparison, sales made outside the art centre structure, (e.g., through community stores), tended to de-value the works as individual pieces of art, as they were all lumped together and a minimal price paid according to number only. If there was any attention given to the work involved in each piece, it was often based on the length of the product – i.e., the longer the necklace, the more it would on-sell for. During such transactions, artists often took on a role of passive acceptance, with no say in the process at all. On more than one occasion, I witnessed my Anmatyerr friends change both physically and emotionally, from self-confident, proud Elders to a silent group of women with down-cast eyes and nervous glances. (This may also have been due to the public nature of such transactions.) Clearly a socio-culturally appropriate emotional support structure is essential to the development of any fair and equitable bush produce industry.

Professional support

In Laramba, there is a history of sales to the pastoral station owners, Roy and Janet Chisholm. The advantage of on-site sales is that there is always a market/accessible sales point; however, the financial return is increasingly thought to be too small in terms of effort expended (pers. comm. from most of the women selling necklaces, over the 2008 season). As a result, people often travel further afield to maximise their financial returns (85 – 200kms further). People often make the most of family members travelling to sports meets in communities with art centres (e.g., Yuendumu or Papunya) or into Alice Springs, giving them necklaces and bracelets for on-sale.

New skills and the development of links with external organisations are often made through Laramba community school. The school principal and staff are key in actively supporting external links that help broaden experiences and options for community members. In May 2008, a beading workshop **was held with the senior women's class as part of their enterprise studies unit.** The idea was to introduce a variety of modern jewellery-making techniques that

might appeal to young people and could potentially be used alongside more traditional bead-working styles. The workshop was run by the proprietor of an Alice Springs-based beading business called *Queenbead*. As a direct result of visiting the community and speaking with women on-site, this business has become a point-of-sale/wholesale distributor of beaded products from Laramba community. Such external contacts provide options for better financial returns to Laramba artists, giving people greater choices as to where and how they may sell their produce. Through the school connection, lecturers from Charles Darwin University and coordinators from the Department of Employment Education and Training (DEET) are also helping facilitate training and development of skills and interest in bushfoods horticulture and broader Care of Country/land management. For Laramba, the school plays a major role in **expanding people's experiences and connecting them with opportunities outside the immediate region**.

Taking on board the observations and experiences encountered during the fieldwork experience, the PhD research changed to action research to maximise socio-cultural returns to **individuals and the community**. **Working with the secondary women's class on participating in and recording the process of bush jewellery-making "from tree to store", the research facilitated** the transfer of traditional skills and knowledge from Elder to younger community members and assisted the development of numerous language-based resources that will be used by Anmatyerr teachers in future classes. An audio-visual presentation of the process has been developed to accompany written resources and will be used, along with a brochure developed in collaboration with the Elders, to help with cross-cultural understanding of the process involved in bush jewellery-making (ref. accompanying DVD & brochure in **Appendix 1**). The brochure is aimed at meeting a perceived industry need to increase consumer awareness and appreciation of the skill and effort involved in these traditional crafts. This need was identified by Hamby and Young (2001), and confirmed through discussions with retailers in Alice Springs as part of the PhD research (ref. Section 5.2.3, Vulnerability Context: consumer ignorance of socio-cultural value). As a result of sharing the information I had learned from these discussions and readings with the Laramba women involved in beading activities, the women and I decided that adding value to their produce by providing the story behind the production would be key in helping increase the overall market value and worth of their bush products in the non-Aboriginal domain.

As part of the cross-cultural teaching/learning process, the Laramba beading ladies travelled to Alice Springs in November 2008, to take part in an international Desert Knowledge symposium and business showcase (**Figure 34**). There, they exhibited their produce and ran a hands-on

workshop to allow people an opportunity to take part in activities for themselves, again, in the hope of increasing appreciation of the effort and skill required in their craft. This was one of the first opportunities for the ladies to sell directly to customers without going through middlemen. It was a chance for people to speak to and network with a variety of people engaged in desert-based enterprises, many of whom are involved in bush product development. The women really enjoyed the experience, visibly gaining in professional confidence as the symposium progressed. The young women from the senior women's class particularly enjoyed the opportunity to see the practical outcome of all their work, to be involved in the commercial value-chain from beginning to end, learning how important product presentation and marketing could be to sales (Laramba Senior women's class members, pers. comm., Nov. 2008)

Returning to Laramba, the women prepared produce for a stall at the Christmas markets in Alice Springs, December 2008. They now routinely car-pool to travel to events and cover the longer distances to art centres where they can sell their produce for good financial returns. Although the art centres still pay a wholesale price, this price is usually much higher than the money paid by part-time wholesalers engaged in other full-time jobs on communities (e.g., community store managers). Kitty, Lindy, and Launce said they were satisfied with the prices they received when they visited Warlukurlangu, particularly as the art centre workers had firstly asked them what price they would like (Kitty Peltharr Gibson, Lindy Ngala Gibson, Launce Penangka Campbell, pers. comm., Oct. 2008) .



Figure 34: The Laramba Bush Beads stall at the *Desert Knowledge Symposium and Business Showcase*. From left to right: Beatrice Gibson, Janelle White (the author), Amy Peltharr, Daisy Peltharr, Kitty Cockatoo (dec.), Kitty Gibson (with permission from the women).

HUMAN CAPITAL (HEALTH AND WELL-BEING)

There is great interest in developing an arts/craft centre in Laramba as part of the Aged Care service currently offered. Amy Peltharr has a full-time salaried position as Aged Care Coordinator and is interested in improving the health and well-being of the Elders and their carers by diversifying the activities offered at the Aged Care Centre. The emphasis is on creating a space where people can come together, relax, learn new skills, and take time out from caring duties. There is currently no suitable physical structure available within the community where people can come together for recreational purposes. There is a real need for a community space that is conducive to relaxation and creation.

Laramba runs a school lunch program and an Aged Care meals-on-wheels program. These programs are seen to account for anecdotal evidence of higher than average standards of health and nutrition usually experienced in remote Aboriginal communities. Cooking classes recently introduced at the school through an innovative new teacher who is also a qualified chef, have seen students experimenting with local bushfood ingredients in simple and tasty ways. Bush harvested produce is actively sought by the teacher for such lessons, depending on seasonal availability. Frozen kangaroo tails are available through the store, however most bush meats and fruits are keenly wild-harvested when available. In recognition of the importance of access to Country, the Frontier Services Carer Respite program provides the use of a vehicle to **central Australian communities to allow carers some 'time out', to travel to Country for improved health and well-being. A 4WD vehicle (locally known as a 'troopy') was recently made** available to Laramba and surrounding communities on a roster system. The availability of this vehicle means Aged Care workers are now able to organise trips on a more regular basis to collect bushfood and produce.

People enjoy 'going bush' to find foods, as well as travelling to known areas to collect the raw produce for making bush jewellery. Such trips are usually enjoyable outings with kin, allowing a break from routines and the somewhat hectic life of community living, and letting people know where bush produce is at in terms of growth and availability. People love travelling to places where they may not have been for a few years to check on the health of the country, its resources, and to exchange stories. This is all part of the greater health and well-being received from being involved in bush produce industries. Additionally, the physical activity involved in **collection of resources is often extensive, with people's enthusiasm tempered by the weather,** and the quantity and quality of resources found. For example, if out gathering *inern* beans, women will walk from tree to tree whilst scouring the scrub beneath to determine the size and

colour of the seeds. If a particularly good tree is found (with either the desired colour and/or large beans) the women gather sticks and set about throwing them into upper branches of the trees to make the seed pods fall to the ground. There is usually a lot of laughter and talk as everyone combines their efforts around the same tree. Later, while sorting the beans, the women again enjoy chatting and often make jokes about who collected the most and who was 'lazy'.

People report feeling *murrandurr* (good) when people buy their necklaces. People make necklaces and bracelets from the beans, rather than selling them, because they enjoy the creative process of burning, painting, and threading. They can carry out such tasks when it best suits them, most often while surrounded by family and friends who also help out. People take pride in creating individual works of art and often admire each **others' work. Money earned from** the selling of value-added produce is usually distributed amongst younger family members. Elder women often immediately spend any money earned on food which is then distributed to grandchildren and great grandchildren.

The combination of health benefits described above align with an Aboriginal understanding of health and well-being, as defined by Burgess *et al.* (2005), involving reciprocal care and respect of kin, land, and observance of the Law/Dreaming.



Sisters, Amy and Daisy Peltharr, throwing sticks to knock the seed pods down.

As regards the bushfoods, whilst gathering from the bush, sorting, cleaning *akatyerr/katyerr* (*Solanum centrale*; desert raisins/bush tomatoes) for commercial return, children and adults often eat much of the produce. Local consumption of produce will also be important in future horticultural plots, as people in the Ti Tree region talk enthusiastically about having both bushfoods and a variety of vegetables and fruits available to both eat *and* harvest for money (Ti Tree workshop participants, pers. comm., Oct. 2008) (ref. Shackleton & Shackleton (2002) and Shackleton *et al.* (2002) regarding the importance of the local/domestic market to livelihood returns).

The horticultural training being developed in Ti Tree is based around a life-training model that is aimed at addressing a perceived gap between building enterprise and readying people to take on positions. The gap is more to do with life skills for general living outside the community, in greater contact with the non-Aboriginal community. Geoff Kenna, horticultural trainer and consultant, explained that the skills focussed on initially include: occupational health and safety; money management; workplace communication; literacy and numeracy; responsibilities; and mentoring (pers. comm., June, 2008). This approach aligns with the findings of Whitehead *et al.* (2006) which emphasised the need for external support to be offered “incrementally and iteratively”, to help increase confidence and capacity to engage.



OH&S training as part of the horticultural studies at the Ti Tree Research Farm

NATURAL CAPITAL

Lack of rain in recent years is a likely cause of the current limited availability of bushfoods (as of June, 2008). There has been no commercial harvest of bush tomatoes since 2006 and the Laramba women lament the fact that most of the foods they usually enjoy gathering and eating **are not to be found due to “no rain” and everything being “too dry”**. There is also some evidence that bush tomatoes need fire management to encourage wild crops to grow (Peterson, 1979); however, on a pastoral lease it is not always possible to burn Country. Also, pastoral lessee, Janet Chisholm spoke of wild bush tomato plants on Napperby Station growing flowers some years, but not fruiting – perhaps a survival adaptation triggered by the ultra dry conditions. Over the years, she has noticed the importance of rain and broken ground/soil disturbance in maximizing bush-harvest returns (pers. comm., Oct. 2008).

*People around the Laramba/Anmatyerr region are very lucky because they have the inernt **trees growing in their area, which other groups don't, so they can...they've kind of got a niche market for themselves.** (Josie Douglas, pers. comm., Oct. 2008)*

In contrast to the foods, bush jewellery-making resources were plentiful in 2008, with seeds from the *inernt* being collected from early March. The trees grew back their leaves and the seed pods dried out and fell in late June/early July. The main harvest season appears to be 5-6 months, although when I returned in October, the ladies were still collecting seeds – especially the more unusual (and therefore highly prized) yellow and ruby red coloured beans. A range of other seeds and pods are usually available at any one time, with the range depending on the season and the make-up of necklaces varying accordingly. After the pods have fallen from the *inernt* trees, their wood is often then harvested to make coolamons, which are later sold commercially. Sometimes even the tree roots are eaten (Amy Peltharr, pers. comm., Oct. 2008).

People know when and where to travel to collect each type of seed they require to complete their beadwork. There are at least three vast areas of *inernt* trees on the pastoral lease surrounding the community. The trees follow water courses. Travelling to sites of specific bush resources is like travelling to a specialist store to find exactly the produce you need to complete your artwork/jewellery. The seeds are harvested in a manner whereby not all the seeds are collected from any one tree, with the **women often making the comment “we'll leave them for next time” when moving on to collect seeds from the next tree.** There are also a few *inernt* trees in and near the community that people have planted over the years. People remember not only the location of specific plants, but also who planted them. People are constantly watching the landscape in minute detail to monitor change and evaluate the available resources.



Daisy shaping a coolamon in the base of an *inernt* tree.

According to the Australian Native Plant Society of Australia (ANPSA, 2010), *inernt* (*Erythrina vespertilio*) is not considered to be at risk in the wild. Still, I would suggest the art of making coolamons out of this wood and the collection of seeds needs further research in terms of ecological sustainability, to indicate long-term susceptibility to over-collection (Cunningham, 2001). Speaking with an Alice Springs-based store keeper who buys lots of raw bush produce from the region, she has noticed changes in the supply of *inernt* over the past few years. She reported that the *inernt* have been hard to source in recent years (prior to 2008), and Aboriginal women from whom she buys wild harvested produce have told her that it now takes them a week to collectively fill a 20kg drum, whereas five years ago they took a day (pers. comm., Oct. 2008). Admittedly, this difference may just be the difference in annual bush harvests often faced in a harsh, unpredictable environment; or perhaps the collection of these seeds has actually altered their susceptibility or resilience to collection over time.

PHYSICAL CAPITAL

People need vehicles to access raw produce sites. Most women do not have their own vehicle and rely on family members to pick up produce on their travels and/or to offer them a lift to areas for harvesting. (The main areas for collecting *inernt* are around 35kms from the community.) The NT Carers organisation recently lent a vehicle to Laramba community for a week to allow community carers increased access to country for gathering and socialising. This

vehicle is a much appreciated “travelling resource”, as it is given to various communities throughout the region on a roster-style basis.

There is access to the Napperby station store for sale of produce (3kms) and the station roadhouse (35kms). Distance from Alice Springs and the varying state of roads can hamper attempts to physically link individuals with external markets that may offer greater financial returns. Development of direct sale opportunities through the internet could be beneficial; however, there is a lack of telecommunication facilities within the community – access to internet is only available through the school and office; mobile phone coverage is non-existent.

Innovative self-made equipment is used to aid production/burning – including pieces of wire from old fences, bucket handles, and Hills Hoists, which are used to burn holes in seeds. Money earned through sales is often reinvested in paints, brushes, elastic, wool, and various tools to help with product value-adding.



Kitty Gibson painting white flowers on quandong seeds with a matchstick.

There is space beside the current Aged Care facility for a shaded work area. This is where the art centre may be built. There is also physical space available within the community for future horticulture, including a bushtucker garden – although the sustainability of gardens in a community surrounded by a pastoral lease is highly dependent on the upkeep of cattle-proof fencing. Past crops have been eaten by cattle, and the subsequent affording of responsibility for the payment for broken fences and making arrangements for repairs to happen can take much energy and time.

FINANCIAL CAPITAL

People also enjoy selling necklaces for the cash income they provide, which helps supplement other income sources, including salaries and welfare payments. People often use their money to buy food and clothes (including paying off lay-bys in town), usually distributing such items between family members. In this way, the often joint contribution of various kin in the making of individual pieces of jewellery - whether through them jointly collecting the original seeds, perhaps helping burn holes in them, and/or painting individual beads – is rewarded through the sale. Often Elder women complete the necklaces and receive the cash to make purchases.

The women speak of the hard work involved both in the process of making jewellery and in the collection of *akatyerre/katyerre* (*Solanum centrale*). The time-consuming burning of seeds for necklaces and the back-breaking process of bush tomato collection mean people (understandably) want a fair return for their effort. However, access to markets is usually limited by distance and transport, and the women realise that people firstly need to better understand the effort required in such bush enterprises. Great disparities exist between available markets, ranging from generally poor returns on-site, to fair and more equitable returns at Yuendumu Warlukurlangu art centre and several outlets in Alice Springs. Access to a broader range of markets is expanded through personal travel (e.g., for sports meets, ceremonies) and kin, with people now often car-pooling to drive to places where they know they will receive a better return.

The going rate for *inernt* seeds can vary from \$10-40/kg for raw seeds. Returns on individual necklaces can vary as much as \$30-40, depending where they are sold, with sale prices generally ranging from \$10-50. In an attempt to develop a more regulated and fair method for the sale of bush jewellery items, Warlukurlangu Art Centre at Yuendumu has worked out a system for paying people by length and effort involved: ~20cm single strand = \$5, with most necklaces priced between \$25-35 (but up to \$50) (**Figure 35**). The price varies according to stock (i.e., more in stock = lower prices) and artistic effort /time spent.

If analysed on a purely “rational” time:effort basis, the following calculations made in the field give some idea of the labour-intensity of these activities:

Travel to collect: 40 mins.

Collecting: 1kg = 3-4 hrs; \$25-30/kg for raw *inernt* seed = ~\$6-10/hr.

Fire wood collection; lighting of fire; coal making = 1-2hrs

Drilling: 1kg = ~2000 *inernt* seeds = 3-3.5hrs to pierce

Burning: 1kg > 3.5hrs

Painting: 2-6 hours per necklace (depending on beads chosen and intricacy)

Threading: 15 mins – 1hour (depending on length and sequence complexity)

Travel to sell: 10 mins – 3 hours

Using these calculations, an individual necklace can take between 13 and 20 hours to make, and with an average sale price of \$30, the hourly rate works out to be between \$1.50-\$2.30, but could be as high as \$3.90 or as low as \$0.50 (considering some necklaces sell for \$50, some for \$10). Expenditures, including paint and fuel for transport, are not included in this calculation.



Figure 35: Measuring system at Warlukurlangu art centre – designed to help standardise monetary return to the artist, to make for a fairer system that rewards effort and talent.

In regards the wild harvesting of *akatjerr/katyerr*, based on Amy Peltharr's information regarding collections with her husband and sister, and travelling into Alice Springs to sell, Amy, Peter, and Daisy receive just \$5-\$7/hour between the three of them (i.e., approx. \$1.70-\$2.30/hour each). This calculation is based on: one flour bag of *akatjerr* (approx. 20 kilos), having taken three days (8am-5pm; approx. 24 hours, allowing for an hour's lunch each day) to collect, selling for approx. \$200-250, after being driven into Alice Springs (with \$85-90 spent on fuel).

These figures are comparable with estimates made in Arnhem Land in 1979/1980 by Altman (1987). Then, wage rates in women's craft production for market exchange were estimated to

be between \$0.60-\$0.80/hour, with the latter rate allowing for returns from such produce in the non-market sector (including local use and exchange) (pp. 88-89). While such hourly return rates can only really act as a guide, particularly considering the seasonal nature of such activities, these calculations serve to highlight the extremely limited nature of current financial returns to Aboriginal people involved in bush produce industry activities, particularly wild harvesting activities, and beg the question as to why there is continued motivation and enthusiasm shown towards these activities in a commercial sense.

The answer lies in the integrated nature of livelihoods and well-being, based on the philosophy of **"Healthy Country: Healthy people"** (Burgess *et al.* 2005; Garnett & Sithole, 2007). The country:people ratio offers an alternative to the time:effort dimension associated with economic value and work in the formal labour market sense, and needs to be factored in when measuring returns to Aboriginal livelihoods (Campbell, Davies & Wakerman, 2007; Altman, 2001, 2003; Gray, Altman, & Halasz, 2005). Still, as Shackleton *et al.* (2003) found, the cash value afforded bush produce may also act as an incentive to retain traditional knowledge and skills associated with production (as was demonstrated in the current case study through a renewed interest shown in bush jewellery-making by the young women in Laramba after achieving sales in Alice Springs). For this reason, there is need for a number of supportive measures to be put in place, to ensure more equitable financial returns - particularly in respect of recent CDEP changes.

INSTITUTIONAL CAPITAL

There are some links to external organisations, including: the private sector (through *Queenbead* retail beading); the public sector (through DEET working with the school in land management projects); and, the national level (through IAF for the bushfoods). Janet Chisholm acts as agent for both locally produced art and the bushfoods raw produce. The Australian Aboriginal Food Company Ltd. (AAFC) supplies bush tomatoes to the IAF procurement company that supplies Robins Food Company and the *Outback Spirit* brand. The AAFC is an Aboriginal company with eight Laramba women original signatories. Chisholm organises and oversees local harvests of produce (when seasonally available), organising the storage and transport of picked produce to Melbourne. Chisholm said that from her experience, industry sustainability is an issue, as the industry is currently supply-driven, which can cause delays in payment from the retail end of the chain (pers. comm., Oct. 2008). In regards to the jewellery, there is a need for a local base to help facilitate sales and marketing (e.g., Aged Care /art centre). Opportunities to network with other Aboriginal artisans in various locations around Australia are also eagerly sought by the artists.

5.2.3 Key contextual factors effecting Aboriginal people's involvement in commercial bush produce industries and benefits to livelihoods and well-being in the Anmatyerr region

What follows is a summary of the key contextual factors found from the field work to be influencing people's livelihoods and well-being in the Anmatyerr case study region:

INFLUENCING STRUCTURES AND PROCESSES

Land tenure and the pastoral industry; local resource rights and ownership

Laramba community is an excision on a pastoral lease. Most of the wild-harvesting of bush produce occurs on the surrounding pastoral lands. While the NT Pastoral Act recognises the collection of bush produce "for ceremonial purposes" (sect.38; subsection 2), local Aboriginal people have no rights under this Act to a commercial harvest, nor under the Native Title Act (1993). The women from Laramba who took part in the research are generally unsure of their legal rights, as far as land and resource usage are concerned, and some have previously felt anxious about their lack of knowledge regarding rights to access and gather resources. In comparison, their understanding and respect for customary laws in relation to land and resource management and ownership are fundamental to their identity:

(Anmatyerr people) perceive the land as comprising more or less discrete 'countries'. Each country is associated with one or more of the Altyerrenge beings (dreamings) and contains sites marking the scenes of their travels and activities. Some of these beings travelled widely and have sites along their tracks which span several countries. Others are more localised and their sites are limited to a single country. The travels and activities of the Altyerrenge beings are recorded in stories and songs and depicted in ceremonies (Maurice, 1987; p. 11).

As suggested above, Anmatyerr connection to land and resources is complex and multi-faceted. Rights and responsibilities pertaining to land and resource use and management are intricately enmeshed in socio-cultural networks, based around principles of descent, with fluid boundaries and overlapping interests (Maurice, 1987; ref. also Strehlow, 1947). Country is referred to by appropriate kin names and is associated with a pair of subsections/patricouples shared with Anmatyerr people and their *Altyerrenge* ancestors. In this way, "the Dreaming, people and land are classified in similar ways" (*ibid.*; p. 11).

Skin names are delineated across the landscape, connecting people with specific tracts of Country for custodianship. Availability of resources can be mediated only by the Traditional Owners, who perform songs and ceremonies to ensure resources produce (pers. comm., Ti Tree women's workshop, Oct. 2008). This is the socio-cultural reasoning behind scarcity and

abundance of produce. The bush resources being used in commercial activities (incl. *akatjerr* and *inernŋ*) have their corresponding kin networks and ancestral Dreamings that continue to be recognised and respected by those who wild harvest. With the growth in horticultural interest in *akatyerr*, these socio-cultural aspects of harvest and production must be supported, as there is fear that some traditional stories, dances, skills, and knowledge is not being passed on to younger generations (*ibid.*).

As the *Merne Altyerr-ipenhe* (Food from the Creation Time) reference group advocated, respect for the cultural importance of bush resources must form the basis of all guidelines for industry research and development (ref. case study 9.1 in Janke, 2009; pp. 142-144). This includes the development of any plant varieties through horticultural methods. In addition, any benefit-sharing arrangements developed with Anmatyerr people and their plants would need to take this complexity into account. To this end, the development of locally-specific BCPs would appear to offer the greatest form of regulatory access to knowledge and resources, with such protocols relocating TEK/IK in its greater physical and cultural environment (Natural Justice, n.d.; see also Bavikatte, Jonas, and von Braun. 2009).

Changes to welfare and CDEP policies; education and training opportunities

For the Anmatyerr people, the NT Intervention (2007) has led to substantial changes in CDEP payment and welfare management, including CDEP program review and income management (ref. *Northern Territory national Emergency Response Act 2007; Social Security and other Legislation Amendment (Welfare Payment reform) Act 2007*). These changes reflect the trend of greater institutional change to (re)centralise decision-making to address social and economic issues (ATSISJC, 2008; NTRERB, 2008). In terms of these changes directly affecting bush produce industry involvement during the field work period, restrictions on **the payment of 'top-up'** – i.e., additional money on top of CDEP for additional hours worked – meant the Ti Tree horticultural course could not offer full-time payment (of four days/week) for people to attend courses. The introductory course is already six months long, four days/week. If this is reduced to two days/week, it would be at least a year before people complete the qualification. The trainers now have to look for alternative funding sources (as of Dec. 2008).

To date, training at the Ti Tree research farm has included a broad range of skills for job-readiness, including: life skills; simple food preparation; personal hygiene; managing family and work commitments; budgeting; and reliability. A core group of around ten participants (6 men; 3-4 women) were involved in various such activities during my field research visits. Mentoring of

course participants by long-term staff members had meant a good personal rapport had developed between staff and students (pers. observation, Oct. 2008).

Still, local educators spoke with frustration of the **amount of 'accreditation bureaucracy'** that can distract from effort/work geared towards local needs and interests (Geoff Kenna, pers. comm., June 2008). Kenna pointed out how important non-accredited training is (e.g., for life skills), but the dilemma is how to fund this. Government funding is mostly aimed at meeting outcomes based on formal certification; however, he explained how flexible responses are required from government departments to help meet non-accreditation needs and work with smaller numbers of course participants in remote regions (*cf.* Young, Guenther & Boyle, 2007).

Unfortunately, funding opportunities are often isolated and programs fragmented across different government departments (state and federal), which is not conducive to either cohesive training or long-term outcomes. Kenna said programs often have a long lead-up time due to difficulties in finding and coordinating funding, which can be embarrassing for trainers as trainees lose motivation and enthusiasm throughout this period. This is currently the case with the organisation of horticultural training for women at the Ti Tree research farm. After extensive consultation and based on past experiences, it is understood by training providers that horticultural training should, for cultural reasons, occur in separate gender groups. However, their hands are tied by funding that will not even cover expenses around one full-time class, let alone two parallel gender-based classes (Geoff Kenna, pers. comm., June 2008).

Whether the women can take part in training for horticulture also remains dependent on whether there will be childcare facilities available (Ti Tree workshop participants, pers. comm., Oct. 2008). Ti Tree and 6-Mile communities currently do not have appropriate facilities and this may limit the number of women who will take part in the course in 2009. The economic dependency ratio for central Australian remote regions is 6 to 1: i.e., for every person aged 16-54yrs who is employed, on CDEP, or unemployed, there are on average six people who are dependent (incl. children 15 years and under, and people aged 55 years and older) (Centrefarm, 2008). This needs to be considered when developing financial and social incentives for people to train and work.

Ingamells, Holcombe and Buultjens (2010) suggested an explicit Community Economic Development (CED) framework might offer a more locally appropriate and effective alternative to government agency – **[which all too often tends to “disarticulate remote local economies”** (p.

11)]. Such development involves a shift from global dependency to local interdependence (Norberg-Hodge, 2000b), allowing for a more holistic understanding of local economic systems (Kenyon, 2007). Within the Anmatyerr region, intercultural engagement is an integral part of local economic development and employment (Ingamells *et al.*, 2010).

Intercultural mediation and negotiated realities

People normally sell to people they trust to do the right thing by them – i.e., on a personable one-to-one basis. Non-Aboriginal wholesalers and agents offer crucial links to the greater market economy (Walsh *et al.*, 2006b) and can help facilitate information exchange, knowledge enhancement, and ultimately personal and group power; however, the effectiveness of their role is **based on individual ethics and personal beliefs, and for this reason Aboriginal people's** benefits from being involved in bush produce industries can prove vulnerable (Cleary, 2009a):

Diary of a PhD

3rd June 2008

I am shocked at the buying process and the seeming lack of control and power that the women have. The necklaces were unceremoniously pulled from plastic bags, quickly counted, and the money paid (less than \$12 each), despite the individual complexity, beauty, and effort put into each work of art. There was no overt room for negotiation; rather, the women took the money offered and fled (I didn't blame them!) All the confidence displayed on their home turf disappeared. There were no attempts made to explain to the buyer the work involved and the subsequent worth of such pieces... (despite a prior determination to ensure greater returns).

Recent research conducted by Davies, Hueneke, Box and Maru (2008) into livelihoods in the Anmatyerr region of the Northern Territory, reported varying attitudes stemming from value differences between workplace cultures and Aboriginal cultures that require individuals and/or organisations to bridge. They found public sector employers who have established some clear rules and procedures that account for Aboriginal cultural norms have high Aboriginal **employment, and are able to operate 'two ways'** – i.e., be accountable to the norms and rules of two or more cultures (Davies *et al.*, 2008; Davies, Maru, Hueneke *et al.*, 2010). The research by Davies *et al.* (2008; 2010) pointed to the importance of governments in recognising and **understanding the key role played by people and institutions in the "middle ground"** – i.e., the mediating space between contrasting cultures where the pace of change and the related capacity to change is different (e.g., bush produce wholesalers, local role models, and community art centres) (ref. also Waltja Tjutanku Palyapayi case study in Young *et al.*, 2007;

the role of local governance incorporating bridging networks as identified by Moran *et al.*, 2007 – ref. the CAT Sustainable Livelihoods Framework in Figure 17, Chapter 3 of this thesis; the **concept of the 'third space' as described in Holcombe, 2005).**

Rea and Messner (2008) identified inter-cultural capacity as **"the essential ingredient for constructing Aboriginal livelihoods"** (p. 89). Their research in the Anmatyerr region pointed to **importance of 'cultural components' in employment and training opportunities** (see pp. 88-89). Unfortunately, in contrast to such research findings, many regional services are increasingly centrally managed at a distance, in Alice Springs (Sanders, 2008), with increased amounts of bureaucracy, paperwork, and longer turn-around times being reported anecdotally as some of the effects of this reform (several Shire and Territory government employees, pers. comm., Oct. 2008). As a result, the flexibility⁵ so often necessary at the community end, can be easily overlooked and/or ignored (Young *et al.*, 2007; ref. also Ingamells *et al.*, 2010).

VULNERABILITY CONTEXT

Consumer ignorance of socio-cultural value

Simak (2007) wrote of how threaded objects have rarely been studied in detail and are often categorised as **"not traditional or authentic"**. She spoke of the lack of exposure, combined with a commonly low purchase price and the fact that these items are often sold anonymously, **"more often than not thrown together in a container without identification of the maker or their maker's clan association and with little effort at isolating and identifying and explaining individual styles and artisans"** (p. 4). This, she said, has contributed to these objects being **classed as "tourist art", when in reality the craft of necklace-making has a rich cultural history.**

Still, Mbantua Gallery in Alice Springs reported beaded necklaces being popular amongst young female tourists (aged approx. 20-30 years), **many of whom collect "authentic crafts"**. They reported some customers buying the necklaces for their burnt smell, and also if they had been previously worn in ceremonies (pers. comm., May 2008). Exhibitions can also help breach information divides. **"Art on a String" exhibition travelled the nation during the early 2000s, visiting 11 venues around the country, visited by over 150,000 people** (Object Gallery, pers. comm., March 2009). **The aim of the exhibition was "to increase awareness of and sensitivity to the craft and design achievements of Indigenous Australians"** (Hamby & Young, 2001; p. 6),

⁵ In 1972, Sahlins described the flexibility and resilience of hunter-gatherer systems. Altman (1987) described these systems as "further typified by production relations that are generally kin-based and domestic, by high residential mobility, and by a consequent high flexibility in production cooperation" (p. 12).

and to improve the position of threaded objects in the marketplace. The book accompanying the exhibition (*Art on a String*, Hamby & Young, 2001) is still a popular sale item in Alice Springs bookstores and has come some way in helping to educate consumers about bush jewellery. However, many stores still sell unidentified strands of beads, despite increasingly discerning customers often seeking more of a story (pers. observation, Alice Springs, 2007-2008).

Lack of industry standards for fair effort/financial return ratio; inadequate knowledge of potential markets and lack of voice

CDU lecturer, Jade Kudrenko, spoke about lack of information being a hindrance to enterprise development:

The lack of information that's out there sometimes works against people who, say for example are selling things far too cheaply, and it means that for a long time they're not actually seeing the true value in what they're doing, and then people in the community are also not recognising the true value of that and not supporting each other... I guess that can be a problem. Like for example, if someone is selling wattlesseed and selling it cheaply, people in the community don't see that for what it could possibly be. I think if people were collecting bushfood and were actually selling it for really good prices it could be quite inspirational for other people on community and uplifting, and people (would then) say 'well, we do have traditional knowledges; we could be doing this'. But, when you're getting poor prices, people don't see the value in it and it actually has a negative impact, as people say that is a whole lot of hard work for what?...just so some other person can make money?! That's definitely a negative (pers. comm., April 2008).

The going commercial rate for wild-harvested bush produce is often an unknown at the harvester level. People are often unsure how much they should be getting for produce they pick, as there is no standard by which to measure. Any amount can seem reasonable without the knowledge to say otherwise. An Alice Springs storekeeper spoke of Aboriginal women coming into her store to sell bush produce, but not really having any idea of the (monetary) worth of their work (pers. comm., Oct. 2008). Additionally, some people seemingly have very little understanding of how money works - for example, thinking \$150 to be less than \$100 (pers. observation, Laramba, May 2008). Yet, most people recognise when financial return is too little:

Sometimes the price is low and people feel ripped off. The difficulty sometimes is knowing where to go to sell, and who to sell to. We also need a vehicle to get there.
(Amy Peltharr, pers. comm., Oct. 2008)

There was positive feedback from the trip to Warlukurlangu Art Centre at Yuendumu (ref. accompanying DVD and **Figure 36**), as from the moment Kitty, Beatrice, Lindy, Launce and I arrived, **we were treated like honoured guests. We'd arrived at lunchtime and were promptly served tea and sandwiches, during which we discussed how the art centre worked. After lunch,**

we were invited to have a look around while each artist was spoken with on a one-on-one basis regarding her work and style, and asked how much she would like to receive in payment. Beatrice had brought her beaded mat to sell and we had heard a rumour that mats could sell for \$200. Beatrice asked for this amount, ...only to be pleasantly surprised that the art centre would be more than pleased to pay \$250, as it was a work of such high quality. On the way home in the troopy, everyone felt *murrandurr* (good) about the experience, emphasising the way the art centre workers had praised their work and had even said that they intended to buy many of the pieces themselves. When I asked about the measuring system used to calculate payment for the necklaces (**Figure 35**), again everyone agreed it was *murrandurr* and "fair" (extracts from fieldnotes recording the trip to Yuendumu, Oct. 2008).



Figure 36: Launce, Lindy, and Kitty selling their jewellery at Warlukurlangu Art Centre, Yuendumu, where sale of produce is an enjoyable, respectful process.

Based on the observation of several point-of-sale transactions over time spent in the field, the women generally rely on pre-existing, long-term relationships with wholesalers to sell their goods. A good price **is sought, to prevent being “ripped off”** (Amy Peltharr, pers. comm., Oct 2008); **but, judging by sales trips, ‘ease of exchange’ is also highly important as the women spoke of wanting to return only to those places where they felt *murrandurr* - which tended to correspond with places of transactions where people were visibly somewhat relaxed, often explaining to the buyer the “hard work” involved in making the product (fieldnote extracts recorded over 2008 fieldwork period).**

The seasonal nature of bush productivity

Frustrations and worries relating to wild harvesting of bush foods, for both subsistence and financial returns, included **“no rain, so no bush tucker”** (Ti Tree workshop participants, pers. comm., Oct. 2008). The seasonality of economic activities based on bush resources has always **been managed through people’s flexibility, knowledge, innovation, and talent in a wide variety** of activities that provide varying livelihood and monetary rewards. In the Anmatyerr region, people often switch to painting, jewellery-making and artefact-making when bush food resources are scarce. This willingness and ability to change is the crucial element of a socio-cultural economy working with (not against) its natural/physical environment. Still, women in the workshop spoke about horticulture of bush tomatoes favourably, as they would then be able to be watered all year round and increase both the enjoyment and health that comes from eating these fruits as well as the likelihood of more prolonged financial reward for their harvest (*ibid.*). Additionally, the location of bush foods within or near communities would help overcome another reported frustration of **“no cars, so no access to bush tucker”** (*ibid.*).

An aging skills base

The thing with young women being involved, it’s really...you know, it’s labour intensive, it requires a high level of skill, it requires really detailed knowledge about availability, seasons...all that kind of stuff, and I think it’s just skills that older women have and that younger women may have, but they’re certainly not using those skills...time will only tell.
(Josie Douglas, talking about wild harvesting skills, Oct. 2008)

Apart from the recent interest in bushfoods horticulture, bush produce activities within the Anmatyerr region are still dominated by middle-aged and older women. Education and training of young people therefore needs to involve these knowledgeable and experienced women, to facilitate the exchange of (socio-cultural) information, to ensure skills are not lost. At the same time, it must be recognised that the knowledge also needs to be relevant to contemporary lives.

The beading workshop organised at Laramba School allowed for the introduction of modern methods to work alongside more traditional beading techniques, for grandmothers to work alongside their granddaughters. For example, while the Elder women burnt seeds and often painted designs based on motifs they had developed over time, their grandchildren adapted these skills to suit their own interests. While burning seeds was suitable for necklaces, the young women also drilled seeds to make creative earrings, bracelets, and anklets that proved extremely popular with their peers. Further proof of the popularity of their modern designs came with their sales success at the Alice Springs international symposium in November, 2008.

COMMUNITY STRENGTH

Community support for individuals in this region includes social and emotional support from family and kin, and access to training courses (horticultural). Changes to CDEP and access to government funding are regulating/restricting community level support, and threaten to negatively impact individual involvement (as described above).

5.2.4 Case study summary and conclusions

KEY ASSETS AND STRATEGIES

Major benefits and risks/issues from involvement in the industry as seen in this case study include:

BENEFITS	RISKS / ISSUES
Passing on of knowledge and skills to younger generations; the validation of the use and continuing need for Traditional Knowledge in contemporary times (incl. increased presence of Elders in the school)	An aging skills base, with limited uptake (interest shown) by the young to date; loss of traditional knowledge
Learning of new skills; gaining of (nationally recognised) qualifications	Lack of funding and support for socio-culturally appropriate training in the long-term
Creativity, fun, pride	The passive/submissive role sometimes forced on people during the sale of bush produce
Physical and mental well-being experienced by people frequently travelling together to Country to collect produce	Lack of clear understanding regarding rights of access to traditional lands and resources on pastoral leases

BENEFITS	RISKS / ISSUES
Health of the landscape (constantly monitored on trips to Country)	Lack of rain (and perhaps fire, as a management tool) has meant scant return for the subsistence bushfood harvest, let alone the commercial bush harvest; lack of information relating to sustainable harvesting of <i>inerrnt</i> beans and no formal ecological protection of the resource base
Monetary return and distribution of goods (including food) from Elders to kin	Varying monetary return to date – lack of industry standards for fair effort to financial return ratio
Local consumption of bushfoods	Consumer ignorance of socio-cultural value
	Inadequate knowledge of potential markets and lack of voice
	Lack of access to vehicles to access Country and to travel to sell produce competitively

To help ameliorate the risks and increase the benefits, there are many livelihood strategies being employed, including:

- on-site value-adding (current: jewellery; desired future: bushfoods)
- diversification of outlets/markets (e.g., art centre sales; community stores; roadhouses; community visitors; pastoral lease owners)
- the use of kinship networks for socio-cultural support
- micro-enterprise development as one of several livelihood strategies
- facilitation of information to consumers regarding the jewellery and the process of production - educating people and developing markets.

The following discussion is focussed on ways to increase the benefits and minimise the risks, by further analysing the impacts on each of the livelihood assets. It is based around key concerns and insights that arose in discussions during five months of field research in the Anmatyerr region, including points raised during a focus group/workshop held in Ti Tree in Oct. 2008, and is combined with observations documented in field notes, and actions taken as part of the action research component of the research:

**(Individual) Producers
and Producer
Communities/Groups**

**can be informal (family-based) structures;
have cultural rights and responsibilities;
provide opportunities for intergenerational
knowledge transfer**

The women involved in the Ti Tree workshop reported the following key benefits they have enjoyed through their involvement in wild harvests over the years:

- *the teaching of culture through the telling of stories and the learning of traditional harvesting and processing techniques*
- *the enjoyment of eating bush tucker locally*
- *the enjoyment of working together in groups.*

[(Unpublished) report on the workshop on bushfoods industry involvement in the Ti Tree and Pmara Jutunta region, held on 29th Oct. 2008 in Ti Tree.]

In a similar fashion to the women in Laramba, bush harvesting trips were described as enjoyable seasonal events, conducive to cultural knowledge transfer, whereby the produce and the process are infused with the wisdom of the *Altyerrenge*. Dreamings associated with bush produce/foods that are located within Anmatyerr territory include: the *Artetye* (mulga seed); *Yerrampe* (honey ants); and *Ahakeye* (bush plum, native currant) (Maurice, 1987). Different categories of people with inherited rights and responsibilities are responsible for the sites and important ceremonies to ensure the continued supply of these resources. There are also rules associated with the handling and preparation of traditional foods (*ibid.*, p. 28).

At first glance, the increasing horticultural production of bush foods in the Ti Tree /Anmatyerr region would also appear conducive to the enjoyment of working in groups and eating local foods – [provided on-site consumption and/or local-level market development is encouraged (Shackleton & Shackleton, 2002; Shackleton *et al.*, 2002)]. However, the teaching of culture and traditional skills is limited through the standard horticultural medium. While the women who took part in the Ti Tree workshop talked positively about having both bush foods and a variety of vegetables and fruits available to both eat and harvest for money, located in a garden near the community, they also emphasised the need for on-going recognition and support for the Anmatyerr Elders to facilitate traditional knowledge transfer and skills development (Ti Tree workshop participants, pers. comm., Oct. 2008). This is the difference between horticultural **activities having mere 'cultural direction' versus containing 'cultural components'** (Rea & Messner, 2008). Rea and Messner (2008) emphasised how training and employment without a cultural basis can fail, citing a local Aboriginal person in their Anmatyerr case study who referred to there being “no jukurrpa for grapes” (p. 88) (i.e., there is no Dreaming/Law/moral

code associated with these plants/fruits). Rather, Rea & Messner recommended the development of new inter-cultural arrangements and capacity to assist in the design and uptake of such livelihoods. Alternative horticultural approaches to monoculture, for example, could facilitate more intergenerational knowledge exchange – [ref. the permaculture model (Holmgren, 2004)], as would increased involvement of the school (as in Laramba community, where Elders are actively involved in value-adding activities).

External Partnerships

CDU; Queenbead; NT Carers;
IAF/Outback Spirit; Warlukurlangu;
Ti Tree Research Farm;
UniSA (Action Research – this PhD)

**occur in inter-cultural spaces;
require mutual trust and respect;
usually involve physical distance/travel**

Sometimes the price is low and people feel ripped off. The difficulty sometimes is knowing where to go to sell, and who to sell to. We also need a vehicle to get there.
(Amy Peltharr, pers. comm., Oct. 2008)

Laramba community has one public phonebox and no mobile phone coverage. On-site computers are limited to the school and offices of the Aged Care Centre, Clinic, and the Childcare Centre. As a result of limited access to telecommunications, it is very difficult to pre-arrange sales of bush produce prior to travelling to meet with wholesalers/buyers. In comparison, Duncombe's (2006) study of the use of digital ICTs (Information and Communication Technologies) in small-enterprise development reported improved horizontal networking through the use of mobile phones and internet, allowing for increased information transfer. As Cunningham *et al.* (2008) wrote, benefits for Aboriginal peoples living in remote **locations from improved communications include "improved price information" and "(improved) coordination in bulking-up viable quantities of bush products", resulting in reduced transport costs and/or supply chain complexity** (p. 435).

In Laramba, improvement of telecommunications available for use by community members, for example an ICT hub, coupled with improved mobile phone coverage could help foster market access. A community-based creative space for people to come together to produce art, jewellery, and attend workshops (incl. those on computers) would help increase opportunities for on-site value-adding and marketing, to help maximise financial returns, and could include community internet website development. The students at Laramba school learn computer skills as part of their studies. The involvement of these young people in bush enterprise development would help foster intergenerational information and skills sharing, and could help in the development and dissemination of information detailing the process of production, to help

educate consumers into seeing the socio-cultural value in such products (as occurred during the **PhD research with members of the Senior Women's class**). In addition, increased telecommunications access would allow for research into alternative markets. Contact information for buyers who pay fair prices and practice ethical business principles could then be relayed to/displayed in the community.

No cars, so no access to bush tucker...

Prickles and stinging ants when picking bush tomatoes...

The fear that some traditional stories, dances, skills, and knowledge is not being passed on to younger generations.

[Frustrations and worries mentioned by the participants of the Ti Tree workshop; cited in the (unpublished) workshop report, Oct. 2008.]

Cunningham *et al.* (2008) pointed to the need to develop a better understanding about what **constitutes 'successful enterprises' according to what Aboriginal people value**. Citing Sen's (1999) assessment of the links between well-being and development, Cunningham *et al.* stressed the widely recognised importance of **"cultural links to Country" and "mobility for cultural and social reasons"**, and the subsequent high value placed on equipment related to these activities (p. 435). Arrangements like that made by the NT Carers organisation have helped people in the Anmatyerr region access and share vehicles on a roster-system basis. In Laramba, the vehicle was used to take full-time carers out on Country, to collect *inernt*. The trip was arranged by the Aged Care coordinator, Amy Peltharr, who explained she wanted use of **the vehicle to "give people a break"** from their caring responsibilities, to enable people who rarely get the time or opportunity to access Country and bush produce, to take some time out from community-based social tensions and conflicts (referred to locally as 'humbug'⁶). The school also **used their vehicle to take women from the Senior Women's Class out with female Elders** to collect seasonal bushfoods, helping align local plant and animal studies with Anmatyerr socio-cultural knowledge and meanings.

Building capacity of producers therefore involves finding out and meeting their equipment and infrastructure needs. Apart from vehicles, bush produce harvesting often requires containers (buckets or bags) for collection, gloves (for protection from prickles and ants), drying racks (for produce needing to be sun-dried), and secure storage space for commercial pick (away from camp dogs and curious grandchildren) (Fieldnotes based on individual discussions with *inernt* gatherers, Laramba, July-Oct. 2008). To this end, the Coles Indigenous Food Fund (CIFF), the Outback Spirit Foundation, and Indigenous Australian Foods (IAF) offer a potential source of

⁶ This term is often used to refer to arguments and stress related to sharing and family obligations (Nagel & Thompson, 2010; ref. also Peterson, 1993).

funding, each having the aim of putting back into the industry. For example, CIFF will potentially support individuals with grants, even if they aren't **feeding into the COLES structure**, but rather, they are furthering the bushfoods industry itself (Chris Mara, pers. comm., Sept. 2008).

While Mara stressed the 'non-bureaucratic' nature of the process involved in applying for funds, initial contact with CIFF is usually by phone or email (*ibid.*). In Laramba, such contact is mediated by Janet Chisholm, the pastoral lease holder and agent for the Australian Foods company supplying the IAF/*Outback Spirit* supply chain. In this way, communication regarding funding opportunities, as well as pricing and market needs, is agent-controlled. As Cleary (2009a) described, the current supply of bush-harvested bush tomatoes in Central Australia is directed and controlled by three to four traders, (including Chisholm). Harvesters generally receive (limited) market information from one agent alone, and this has meant that information **transfer is "heavily reliant upon the traders behaving altruistically in situations where it may not be a rational economic choice to do so"** (Cleary, 2009a; p. 7). This leaves the harvesters in a strongly dependent and vulnerable relationship with the traders (see Neumann & Hirsch, 2000; p. 69 for further discussion of conditions often found to be conducive to exploitation; also Holcombe & Sanders, 2007 regarding the possibility of the historical legacy of regional violence associated with colonization, influencing contemporary inter-cultural relationships).

Still, the information regarding these funding bodies, as well as other philanthropic organisations and/or government funding sources, faces difficulties reaching the harvester level when telecommunications are restricted and harvesters are spread over vast distances (ref. scepticism noted regarding benefit flows from Development Funds based on sales revenue in recent Indigenous Fair Trade scoping study by Spencer and Hardie, 2011). Additionally, intermediaries often play an important role in managing risks, providing transport and storage for example, so the elimination of middlemen may not therefore always be economically beneficial (Neumann & Hirsch, 2000).

That said, social networking arrangements, such as formalised cooperative institutions and producer groups could help in this regard (Cunningham *et al.*, 2008). Somewhat paradoxically, **Sullivan and O'Regan (2003) reported greater awareness of NTFP values spurred the formation** of such producer groups. This has proven to be the case with the recent research conducted by the DK CRC (Cleary, 2009a) which highlighted the need for increased networking and cooperative arrangements between people involved in bush produce commercialisation,

particularly Aboriginal bush-harvesters. To overcome issues of **“power asymmetry related to resource flows, information sharing and knowledge creation”** (Cleary, 2009a; p. 14), Cleary, Grey-Gardner & Josif (2009) developed a project to facilitate horizontal networking opportunities, entitled **“Hands Across the Desert”**, aimed at providing Aboriginal industry participants greater opportunity to access knowledge and skills to enhance their involvement in the industry. This research, combined with an earlier walk-through-the-value-chain experience (Cleary, 2009b) allowed a select group of arid zone Aboriginal bush harvesters and producers greater access to market information, to investigate alternatives to the current trader-controlled supply chains. These experiences and research prompted discussions regarding a formal networking arrangement for Aboriginal bush products, which in early 2009 had progressed to workshopping the formation of an Aboriginal Bush Products Association.

Government Support

Lack of commercial harvesting rights; CDEP changes

The women from Laramba who took part in the research are generally unsure of their legal rights, as far as land and resource usage are concerned, and some have previously felt anxious about their lack of knowledge regarding rights to access and gather resources. In comparison, their understanding and respect for customary laws in relation to land and resource management and ownership are fundamental to their identity.

(Fieldnotes based on individual discussions with *inernt* gatherers, Laramba, July 2008)

There is need for the widespread clarification and explanation of laws and legislation regarding the rights of Aboriginal people to access and utilise bush produce for commercial return. People involved in commercial wild harvests (both Aboriginal and non-Aboriginal) need to be better aware of such rights (or lack thereof). Cunningham *et al.* (2008) **warned “complex and uncertain property rights represent a significant challenge for enterprise development” (p. 437)**, recommending the formation of producer organisations such as cooperatives to help reduce harvester vulnerability.

In addition, Cunningham *et al.* **suggested adapting ‘People’s Biodiversity Registers’ (Gadgil, 2000) to Australian conditions, using them to record “local people’s knowledge about the uses, population biology and ecology of plants” (p. 437).** They particularly emphasised the importance of such registers in helping increase knowledge regarding access and benefit sharing, as well as making Aboriginal people more aware of the geographic range of their **plants, and that “other Aboriginal peoples also have knowledge of these species” (ibid.).** Linking scientific research to traditional knowledge on improving yields, production methods, and

resource management would afford traditional knowledge its deserved respect in the industry and help improve the reliability of produce supply (*ibid.*; see also Maclean, 2009; Vaarzon-Morel & Gabrys, 2009). This requires not only acknowledgement by governments of the value of Aboriginal involvement in bush produce industries, but also funding arrangements that respect the time needed to develop the inter-cultural capacity of both Aboriginal and non-Aboriginal **participants, to help ensure the 'cultural components' of such enterprises are fully realised** (Rea & Messner, 2008; see also Alexandridis, Maru, Davies *et al.*, 2009). Additionally, the Australian government's endorsement of the Intangible Cultural Heritage Convention (UNESCO, 2003) would help promote the importance of such cultural components as "a mainspring of cultural diversity and a guarantee of sustainable development" (*ibid.*).

5.2.5 'Value, Contribution, and Shortcomings' - Adaptation of the SL Framework to the Anmatyerr region

The following are observations on the development process of a Sustainable Livelihoods Framework suitable for use with Aboriginal people living in the arid region of Australia. They are based on the PAR process engaged with in Laramba community, March–July & Oct. 2008, and the review of the draft SL framework (**Figure 7**, in Chapter 2):

The women I worked alongside in Laramba community are among the most enterprising individuals I have ever met. They are constantly engaged in productive activities – some of which generate monetary rewards, but more importantly all of which satisfy the basic human need of contributing to society in a socio-culturally appropriate and meaningful way. The women do what they do because they enjoy it and see a multitude of worth in such activities. **They have been 'training' all their lives for such enterprises** – apprentices from a young age. The flexibility inherent in small-scale bush produce activities suits lifestyles that move with the seasons, as well as meeting cultural needs. The SL Framework helps focus attention on these non-economic benefits.

Diary of a PhD

29th June 2008, Alice Springs

I'm currently sat in Olive Pink Botanic Garden, surrounded by the plants the Saramba ladies are so creative with. I liken their ability to seek and identify pods and nuts at a distance to an alternative way of viewing our surrounds that is perhaps best exemplified at night when the emu is seen in the sky. Just as it is the space between the stars and not the stars themselves that forms the shape of the bird, so it is the smallest part of plants that hold the most meaning and value for the people collecting them – as opposed to a broader landscape view that often overlooks the detail contained within.

Perhaps there is even a likeness to be drawn here between macro-economic views of enterprise and the micro-economies I've witnessed in Aboriginal communities. The bigger picture tends to obscure the local, smaller-scale activities that are often focused to a far greater extent on the sustainable development of well-being. Perhaps it is time for star gazers to concentrate on the beauty of the spaces between each point of light, for these spaces hold immense depth and validity of their own, but are all too often over-shadowed by the brightness surrounding them.

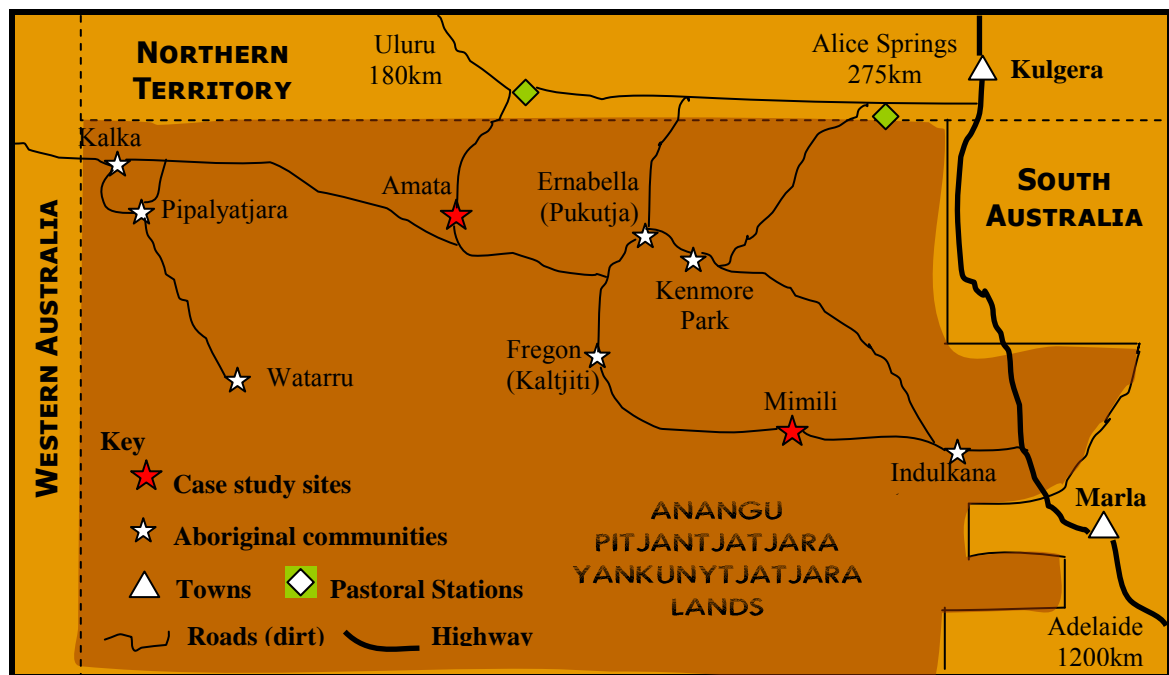
5.3 Stories from the APY Lands, South Australia

5.3.1 Research setting

HISTORY, SOCIETY, AND CULTURE

The Anangu Pitjantjatjara Yankunytjatjara (APY) Lands are home to the Pitjantjatjara and Yankunytjatjara peoples of the Great Victoria Desert (**Figure 37**). The word *Anangu* refers to the people of these remote lands, some of whom were amongst the last Aboriginal peoples in all of Australia to experience sustained contact with *Walpela/Pirrapa* (whitefellas/non-Aboriginal people). Living in small family groups, moving often, and travelling with the seasons, *Anangu* managed to subsist on very limited resources in an area of central Australia that was deemed 'uninhabitable' by most *Walpela*.

Figure 37: Map of the Anangu Pitjantjatjara Yankunytjatjara Lands
(Note: Not to scale; distances approximate)



The Pitjantjatjara and Yankunytjatjara people inhabit a region with very low and variable rainfall at the eastern edge of the Western Desert, where the borders of South Australia, Western Australia, and Northern Territory meet. Their lands cover some 103,000 square kilometers of sandy desert and tussock grassland and scrub (*Kuka Kanyini Health & Wellbeing Survey Report*, 2005). Pre-contact population density was very low, estimated at one person per 80-200 square kms, with settlement and mobility tending to revolve around access to permanent waters

(Keen, 2004). Movement within and across landscapes also related to the ancestral cosmology, which revolved around long ancestral journeys, and individuals formed attachments to certain sites through a number of connections, including place of conception or birth (*ibid.*). People across the region cooperated in a system of local increase rites, regularly performing ceremony to ensure the production of food species and the onset of rains (*ibid.*). The ethnography of the region also stressed the achievement of personal autonomy by moving through the generational structure of authority, and the separation of the genders. Women enjoyed a considerable **degree of autonomy, expressed in secret women's rituals** (*ibid.*; Hamilton, 1980).

The first Europeans entered the APY Lands in 1873. Explorers and surveyors were among the **first outsiders to 'discover' routes of watered access**. Several small pastoral stations were established in the region and by the 1930s, prospectors, doggers (see below), sheep and cattle men were moving into the APY Lands in increasing numbers. A growing concern for the welfare of people whose way of life was being heavily encroached upon, led to the establishment of a Presbyterian mission at Ernabella in 1937. Dr Charles Duguid, a surgeon and Presbyterian layman from Adelaide, founded the mission after touring the region in the 1930s and being troubled by the health and welfare conditions of *Anangu* living on the edge of cattle stations or towns. In establishing the mission, he hoped it would serve as a buffer zone to allow *Anangu* the space to accommodate to the changes taking place around them.¹ In this way, Ernabella mission was unlike many other settlements, as it had a policy of deep respect for traditional culture, along with a focus on education and medical care (ABC, 2011; Harris, 1990; Broome, 2001; and for more critical analysis on the approach to medical care see Kerin, 2006).

Severe drought throughout the Lands during this period saw a growing number of *Anangu* making contact with the mission and obtaining foodstuffs which were often carried back east to hungry relatives (on donkeys and camels). The mission introduced western-style schooling (in the local language) and employment into the region, with *Anangu* filling jobs such as shepherds, fencers, builders, and gardeners. **The region's remoteness and paucity of resources** meant pastoralism and prospecting remained minor activities; still, homelands were established during the 1960s and 1970s as places to provide further employment in cattle work and as living areas closer to traditional areas further east - including the settlements of Fregon, Amata, Indulkana, and Mimili (Mattingley & Hampton, 1998; pp. 254-261).

¹ Letter, Charles Duguid to Professor Gilbert Murray, 26 November 1938, Duguid Papers, Series 10, NLA; Charles Duguid, "The Australian Aborigines", *Australian Intercollegian*, 1 July 1940, p. 88; Charles Duguid, *The Future of the Aborigines of Australia*, 1941, Presbyterian Board of Missions, Adelaide; p. 9.

In the 1970s, missionary and government administration ceased and control was handed over to the growing communities. However, the withdrawal of European controls was relatively sudden, **and the creation of 'communities'** was based on European ideals of governance (Hunter, 1999). In 1981, the Pitjantjatjara Land Rights Bill was passed and the inalienable freehold title of their land was handed over to the Pitjantjatjara and Yankunytjatjara peoples. Today, there are seven municipalities, ten main settlements/communities of 50-400 people, and up to 50 family-based homelands located within the APY Lands. The remoteness of these communities has contributed to a lifestyle rich in cultural observances and traditions (Nganampa Health Council statistics: cited in *Kuka Kanyini Health & Wellbeing Survey Report*, 2005; p. 3).

POPULATION, ECONOMY AND INFRASTRUCTURE

In 2005, the estimated population of the APY lands was 2600, with approximately 34% under 15 years old and only 9% over 55 years (*ibid.*, p. 3). Over 58% of residents speak Pitjantjatjara at home, whilst 14.3% speak Yankunytjatjara (ABS, 2006)². Median individual weekly incomes are around \$220/week, which is significantly lower than the approx. \$470/week nationwide (*ibid.*). A significant number of people are unemployed and single-parent families make up over 30% (*ibid.*).

The main economic development to date throughout the region has been based around tourism and art/craft. Most government activities on the APY Lands have a livelihoods/well-being emphasis. However, high transport costs mean economic viability is often at risk with projects. Development on the lands is happening, especially due to increasing mining and petroleum exploration: mining infrastructure, road and transport upgrading. However, mining is also subject to the whims of the global economy and in early 2009 much exploration in the Lands was put on hold in response to the global economic downturn. Still, for young *Anangu* men especially, it is hoped future development of mining may help relieve boredom and provide them with local employment and training options (PIRSA, 2004). Pastoralism is also being developed by some families, with the recent training of youths by Elders who experienced pastoral life and worked with cattle during the mid-late 20th century (ABC, 2008).

² These languages are considered dialects of the Western Desert language, belonging to the Southwestern group of the Pama-Nyungan family of languages (Keen, 2004). Yankunytjatjara is mainly spoken in and around Mimili, Indulkana, and Fregon (Goddard & Kalotas, 2002), while the traditional Pitjantjatjara homelands are to the west of Amata; however, an eastward movement over the past hundred years has meant that many Yankunytjatjara and Pitjantjatjara people now reside in the same communities, and intermarriage is common (Keen, 2004). English is learnt as a foreign language (Goddard & Kalotas, 2002).

BUSH PRODUCE INDUSTRY DEVELOPMENT AND INVOLVEMENT IN THE REGION

It is estimated that more than 100 species of plant were potential food sources in the Western Desert region, with 20 to 40 of these providing staple foods (Keen, 2004). Anthropologist, Charles P. Mountford, travelled with Pitjantjatjara and Yankuntjatjara people throughout the region in 1940 and wrote:

Although about 130 Aboriginal foods are known, and there are many others, they are neither a constant nor an abundant supply of food. The plants, often sparse and available only in their season, are seldom in sufficient quantity to provide nourishment for an Aboriginal group for more than a few days. (Mountford, 1976; p. 42)

Fruits such as *Kampurarpa* /*Kampurara*³ (*Solanum centrale* /desert raisins), *Ngaru* (*Solanum chippendalei* /Tanami apples), *Wayanu* /*Mangaṭa* (*Santalum acuminatum* /quandongs), and *Iji* (*Ficus sp.*/wild figs) were those that were seasonally available (Gould, 1980), and *mai kal̩ka/ul̩inypa* (seed foods) were an important part of local diets, which women collected, cleaned, and pound into a paste and baked in hot ashes to produce a *nyuma/wanytji* (seedcake) (Goddard & Kalotas, 2002; ref. also Hamilton, 1980).

People were connected to totemic beings (Mountford, 1976; Hamilton, 1982), and ancestral doctrines (*Tjukurrpa*) formed the basis of precepts and practices that informed social life (Keen, 2004). Keen (2004) explained the word *Tjukurrpa* denoted “the creative time of the ancestors, a ‘story’, and ‘ancestral law’ in Western Desert languages” (p. 217). This law (still) constitutes the foundation of contemporary Aboriginal life in this region of the arid zone, objectifying social norms (Myers, 1986, pp. 48-49, 118-119; Munn, 1970). In relation to the management of plant and animal species, *Anangu* used fire to manage their food resources (Latz, 1995; Keen, 2004) and totemic plants, including *Kampurarpa* /*Kampurara* and *Wintalyka/Kurku* (*Acacia aneura*/mulga), were the focus of ceremonies, songs, and rituals (Latz, 1995), including increase ceremonies that ensured the sustainable production of such food resources (Mountford, 1976).

An early form of commercial bush produce enterprise developed in the early 1900s when *Anangu* traded dingo scalps for handfuls of flour, tea, tobacco, or sugar. Agents, known as “doggers”, on-sold the scalps to the government for 7s.6d. each, exploiting the superior knowledge and skill of *Anangu* in hunting and tracking (Mattingley & Hampton, 1998; pp. 254-261).

³ Where two names are given, these are in the respective Pitjantjatjara and Yankuntjatjara dialects.

Hunting and gathering remain important economic activities in contemporary society (Goddard & Kalotas, 2002), with bushtucker seasonally harvested and enjoyed with family and friends, supplementing store-bought foods. *Maku* (edible larvae/ witchetty grub), *Tjala* (honey ant) and *Tjanmata* (bush onion) are popular foods to gather, especially after rain, and *Kampararpa* (bush tomatoes/desert raisins; *S. centrale*) are still gathered roadside as a popular snack food on travels between settlements. People often pass on cultural knowledge at such times, relating to the correct and respectful use and management of bush produce and Country. *Mingkulpa* or native tobacco (*Duboisia spp./Nicotiana spp. /pituri*) is highly prized as a chewing tobacco (Goddard & Kalotas, 2002), and has been traded widely in the past (Mountford, 1976).

Commercial wild-harvesting of some *Acacia* species (*Acacia victoriae* and *murrayana*) occurred in the early 2000s for the native food industry and bush regeneration. Alice Springs-based wholesaler, Peter Yates, worked with women in this region, harvesting with people in the APY Lands and as far west as Blackstone, Wingellina, and Tjukurla in WA through the Ngaanyatjarra Pitjantjatjara Yankunytjatjara (NPY) **Women's Council**.

Today, the communities of Amata and Mimili both have active bushfood gardens and are involved in horticultural enterprises with the support of Reedy Creek Nursery (Mike and Gayle Quarmby, *Outback Pride* brand). These sites are currently not commercial – rather, they are training sites (pers. comm., Mike Quarmby, Aug. 2006). Support has been given in terms of time and effort by the Quarmbys, initial construction and on-going maintenance by CDEP, along with training and financial support from TAFE SA and the SA Dept. of Premier and Cabinet.

In Amata there is also a growing commercial enterprise based around traditional bush medicine. Women at the Family and Community Centre are developing a range of products using *Irmangka-Irmangka* (*Eremophila alternifolia* /native fuchsia). These products are well-received locally as well as nurturing an expanding national and international market.

Mimili

Bushfoods - horticulture

Mimili is a settlement of approximately 200-300 people that is located in the Everard Ranges, in the south-east of the APY Lands. A bushfoods garden was established there in 2004. Mike and Gayle Quarmby of Reedy Creek Nursery (*Outback Pride* brand) helped local *Anangu* plant *Kampurarpa* (desert raisins), *Kalkula* (bush bananas/marsdenia), *Mangata* (quandongs), and yams in a plot located in the community, with the initial aim of helping develop a local economy by increasing jobs and training opportunities. Over the years, some raw produce from the plot

has been sold to Reedy Creek for value-adding; however, most has been consumed on-site with the subsequent health and nutritional benefits being wholeheartedly supported by the Quarmbys. Mike and Gayle also packaged *Kampurarpa* off-site for sale in the community store (50g bags of bush tomatoes @ \$3/bag), which was reportedly very popular amongst both young and old (Mimili shop-worker, pers. comm., Aug. 2006).

Amata

Bushfoods – horticulture

Amata community is situated at the western end of the Musgrave Ranges, approximately 200km south-east of Uluru and 580km south-west of Alice Springs. There are 300-400 *Anangu* living in Amata, where a bushfood garden has been established in the centre of town. The garden has a variety of foods, including *Kampurarpa* (desert raisins), *Kalkula* (bush bananas/marsdenia), *Wiriny Wiriny* (*Solanum cleistogamum*/passion berries), *Umpultjai* (bush oranges), *Iji* (wild figs), *Ngaru* (*Solanum chippendalei* /Tanami apples), *Mangata* (quandongs), and yams. Since mid 2006, it has provided a source of seasonal fresh produce for community consumption, with some excess raw produce sold to Reedy Creek.

In both Amata and Mimili, the on-going role and maintenance of the garden has varied considerably over time (ref. Amata garden in **Figure 38a** and **38b** below). While generally being positively received by community members, the future of the gardens, as well as possibilities of larger commercial plot development, is currently a topic of concern and discussion among local *Anangu* and the various outside interested parties with vested interests (namely *Outback Pride* and the SA government).

Figure 38a: Amata bushfood garden, Oct. 2006. *Solanum centrale* plants with yellow fruits prior to harvest; young quandong trees (*Santalum acuminatum*) recently planted.



Figure 38b: Amata bushfood garden, Feb. 2009. A field of grass and weeds after early summer rains; few *Solanum centrale* plants remain after irrigation was left off during summer break and the community swimming pool over-flowed, causing contamination; some quandong trees still growing.



Bush medicines

Our project is a 'We' project, not an 'I' project.

(Jane Lester, Amata *Bush Rub*, 2009)

The *Anangu* coordinator of the Amata Family and Community Centre, Brenda Stubbs, talks of bushfoods and medicine enterprise development, separate from the bush produce enterprise proposed and being developed by the Quarmbys. Ideas include making chutneys from local bush ingredients and developing local medicines. The initial focus is on the development of a medicinal bush rub enterprise – the *Irmangka-Irmangka* (Bush Medicine) Project. This has arisen as a result of a desire for more *Anangu* control and decision-making over local livelihoods and well-being (see **Figure 39**: the bush rub pamphlet explaining the reasoning behind enterprise development.)

A range of value-added produce is sold on-site in the community store, as well as at several outlets in the broader APY Lands and central Australia. Thanks to the internet, there is also growing national and international interest in the products (see <http://www.bushrub.com>); however, the focus remains on benefits to local livelihoods and well-being.

Figure 39: The *Irmangka-Irmangka* information pamphlet.

The Irmangka-Irmangka (Bush Medicine) project

Initiated in 2006 by Amata Community Family Centre and now supported by the Amata Community Council, the project's aims are to assist in maintaining traditional Anangu (Aboriginal) practices and to develop a Community Business Enterprise that demonstrates economic independence and sustainability for Anangu.

Amata is a remote Aboriginal community situated in the Anangu Pitjantjatjara Yankunytatjara (APY) Lands in the far Northwest of South Australia, Australia. Amata is situated amongst the picturesque Musgrave Ranges, approximately 120km south of Juru (Ayers Rock) and 500km southwest of Alice Springs.



Our project's initial aim is to encourage Anangu (both old and young) to tell and continue passing on the 'Story' of making 'Bush Medicine'. Our current focus is the qualities of Irmangka-Irmangka (Emu Bush, *Eremophila alternifolia*) an uncommon Australian native plant found in Southern Central Australia. We currently produce a cream 'Bush Rub', massage oil, soap & inhaling chips

Irmangka-Irmangka is rubbed onto the skin to alleviate dryness/rashes, skin abrasions/cuts and muscle aches and pains.

In the process of creating and making these products the Anangu that are involved are not only preserving the traditional ways of using plants in treating ailments but are also bringing Anangu back together to help pass on traditional practises that have been carried out for tens of thousands of years...Learning & Sharing for young and old.

All products are made with quality ingredients:

Irmangka-Irmangka is selected and wild harvested under the direction of elderly members of the Amata Community. Sites are monitored and picked according to availability, ensuring the supplies are not depleted. Our products are currently being made at the Amata Family Centre where Anangu meet to prepare a healthy nutritional meal for the younger members of the community.

Our products are hand made in small batches; therefore there will be slight variations from batch to batch. *Eremophila alternifolia* is considered as a potent but safe plant as per the NT Conservation Commissions book 'Traditional Aboriginal Medicines of the Northern Territory' 1993. We operate with the 'minimum wastage' theory, therefore very little of our pickings end up in a bin.

Irmangka-Irmangka 'Bush Rub' Cream contains Olive Oil, Irmangka-Irmangka and Bees wax. Note that some jars will have slight sediment at the bottom of the jar. This means it has come from the bottom of the batch and is considered as a 'stronger' preparation.

Irmangka-Irmangka Massage Oil contains Melrose brand Sweet Almond H2Oil and Irmangka-Irmangka. Note: Melrose H2Oil is a new formulation that reduces oil build up on towels and clothing.

Irmangka-Irmangka Soap contains melt & pour glycerine soap and Irmangka-Irmangka

Irmangka-Irmangka Inhaling Chips contains shredded Irmangka-Irmangka twigs. Note supplies are limited and seasonal.

Irmangka-Irmangka Face Scrub contains Olive Oil, Bees wax, Sweet Almond H2Oil and Irmangka-Irmangka.



Soothes...

- Headaches...rubbed on the forehead
- Rashes
- Nappy rash
- Razor burn
- Cuts
- Splits in the skin...smother split and cover with a band aid, should fuse overnight
- Arthritis
- Rheumatism
- Rheumatoid arthritis
- Psoriasis
- Eczema
- Colds...rub over back, chest and neck
- Any aches and pains

Customer comments:

- I haven't taken a pill for years since using bush medicine.
- Nothing has worked on my rheumatism for years until my neighbour gave me this 'green cream'.
- Eczema is across all generations of our family, we now have a jar in every house, it even cured the dogs rash.

Amata Community Inc

Irmangka
Irmangka



www.bushrub.com

5.3.2 Livelihood assets of the APY Lands - in relation to bush produce involvement and enterprise development

SOCIO-CULTURAL CAPITAL

Cultural support

The reason why we started up the bush rub business was because we could see that the traditional knowledge relating to it was disappearing, no longer being passed on.

(Brenda Stubbs, Amata, July 2008)

The aim of the Amata bush medicine enterprise is to truly engage the young people in the Amata community, to help facilitate a (re)connection with Elders so cross-generational respect can (re)develop. The project instigators, Brenda Stubbs and her sister Jane Lester, believe the key is the modern application and demonstration of the need for traditional skills to be valued, where there is an exchange and sharing of information across generations [like the development of modern jewellery styles alongside the more traditional methods of bracelet and necklace-making in Laramba (see Section 5.2)]. From the beginning of the project, the community Elders have been involved in deciding how to source produce and how to monitor its use to ensure sustainable returns – with the help of GPS to plot harvest sites and keep written records of amounts harvested. In this way, traditional knowledge accompanies monitoring and processing in a contemporary Aboriginal context. Jane Lester stressed the importance of time in allowing this mixed process to work, by involving the young people in the school, facilitating knowledge transference, and focussing on locally-based benefits to *Anangu*. These factors are integral to a socio-culturally appropriate and sustainable bush produce enterprise and require a long-term, multi-generational commitment to enterprise development.

Two Elder women led and oversaw the bush harvest process, picking produce and teaching younger people who were present, but it was during the processing of the produce that Brenda noticed that people got really involved and interested. She explained how the young women especially were enthused, liberally applying the rub as they learned and worked, and participants got to take produce home. She believed the creativity involved in the value-added process really motivated people. In November 2008, the young women at the school took part in the next bush harvest. To date, involvement in the process has resulted in these students developing artwork and books documenting the traditional knowledge involved, the outcomes of which have been displayed in the local store to help with further intra-community knowledge dissemination (see **Figure 40**). Future ideas include involving more school children in painting boxes and/or printing fabrics to showcase gift baskets.

Figure 40: Photographic display of bush rub process in Amata store.



In comparison to the bush rub enterprise, such intergenerational transfer of knowledge appears to be limited in the bushfood garden, as most people still travel out to surrounding country to teach cultural skills, including where to find foods and how to prepare them. Very dry conditions **in recent years have limited people's** harvesting trips, as there tends to be little bushfood available and some Elders reported the need to travel far away to access traditional foods. As a result, the foods in the gardens appear to be widely appreciated for their subsistence value (thoughts recorded in fieldnotes, July 2008). (Note: due to no horticulture harvests having taken place during my fieldwork periods, it was difficult to verify how much produce was eaten/how much sold. Also, only a small number of people maintained the garden outside of harvest times and were on-site when I visited. As a result, impressions gathered about garden use and value were limited to three young women studying horticulture in Mimili, three garden workers on CDEP in Amata, as well as several community members, both Aboriginal and non-Aboriginal, involved in plot development and/or TAFE teaching.)

Amata chairperson, Lee Brady, believed many of the old people access the plot because they have no vehicular access to Country for wild harvest and this therefore allows them a relaxed way to access their traditional foods. He spoke passionately of the loss of traditional knowledge as *Anangu* culture is infiltrated by non-Aboriginal ways and powers, and the importance of trying to curb this loss by finding new ways of keeping culture strong and relevant to the young people. He gave the example of presenting bushfoods in new ways (e.g., in pies, icecreams – ref. *Human Capital* section below), which he thought may be more attractive to young people (pers. comm., Feb. 2009).

Still, what constitutes traditional bushfoods seems a little contentious as some Mimili residents spoke of how the Tanami apples and bush bananas in the **garden were “foods from the north of the APY Lands” and that Mimili people therefore did not normally eat them in great numbers in the garden** – because they were not local foods. In contrast, Mike and Gayle Quarmby reported 90% of people not knowing about several bushfoods when they initially approached the Lands. They believed people had not been travelling to Country like they used to and so only a small proportion of people had any real knowledge of the foods. Perhaps ecological change (including feral animals and plants) was also to blame, but Mike and Gayle used historical documents and art records in **an attempt to “re-familiarise” people with their plants. As a result, they reported that within six months the local people again became the ‘experts’ (pers. comm., Gayle Quarmby, 2006).**

People work in the gardens in gender and kin groups. While women mainly pick the produce and rake the weeds, the infrastructure is invariably built by the men (pers. comm., Tina & Marty Jukic, Amata TAFE, Feb. 2009). Kin and broader social networks also play a role in the marketing and distribution of the Amata bush medicine products. Word-of-mouth has led to inquiries from all over Australia (and recently from New Zealand), with produce now being sent to France and Sweden (with **Jane’s** relatives), and Japan and China (through friends). Distribution of products are mainly via Jane, who is based in Adelaide, and for the APY Lands via Brenda and Marianne Zeinstra, a volunteer (from Sisters of St. Joseph) who has been living in the community since the beginning of 2008.

Emotional Support

The experience of TAFE and CDEP managers is that garden produce is always harvested in groups. **‘Leaders’ or key people** help make a difference, motivating other workers and spreading information throughout the community. These people have often had prior experience in horticulture and offer motivation to their peers (pers. comm., Mimili TAFE lecturer and CDEP manager, Nov. 2006).

Between 2004 and 2008, Mike and Gayle Quarmby travelled monthly to the bush gardens to offer on-site support and buy any produce that had been collected. The TAFE lecturers in both communities reported people working to fulfil tasks before these visits and more people tending to be around when the **Quarmbys [who are known locally as “Kungka and Wadi Kampurapa” (Mr & Mrs bush tomato)]** were both on-site. The lecturers spoke of an element of trust developed over time, combined with long-term commitment, as motivating factors amongst garden workers (pers. comm., Mimili and Amata TAFE lecturers, Nov. 2006).

As for emotional support in the bush medicine enterprise, Brenda spoke of the crucial role played by her sister Jane, in that they are both able to discuss the way forward together and Jane follows up on things. Brenda is passionate about making the most of the possibilities that exist on-site for school leavers to follow through on their interests by utilising the local resources. She spoke about building life chances and possibilities for school leavers, advocating independence and local resource use through firstly asking two questions:

1. What do the kids want to do?
2. Can we do it here?

Young people don't have to travel away to fulfil their needs or interests if they may be able to be (better) fulfilled on-site, provided the support is there.

(Brenda Stubbs, pers. comm., May 2008)

Volunteer, Marianne Zeinstra, also offered practical support – helping fill the orders for the store and liaise with the school.

Professional support

In addition to emotional and cultural support, bush produce enterprise development requires financial and professional advice, including knowledge of funding sources. The SA Department of Family and Community Services initially funded Jane for 10 hours a week to work on the bush medicine enterprise development; however, payment ceased in June 2008 and to date Jane works in a voluntary capacity. Enterprise development and financial management grew from Brenda and Jane having had established and maintained their own separate businesses. They intentionally did not seek government funding for this project.

Brenda also spoke of the importance of technology to growing their business. The internet, in particular, has allowed them to cut out the middlemen and given them greater on-site control of the enterprise. A family member with Corporate IT skills built and maintains the website that is now the basis of the majority of sales (<http://www.bushrub.com>). The website also helps spread information about the long-term socio-cultural and ecological aims of their enterprise to a wider, increasingly aware and caring consumer base.

In terms of the bushfoods, several men from both communities travelled to Reedy Creek Nursery at Kingston SE for training with Mike Quarmby in propagation techniques and toured the industrial kitchens on-site to get a better understanding of where their produce ended up. In this way, the Quarmbys spoke **of providing "structural security" for enterprise development – i.e., in their opinion, the *Outback Pride* coop-style approach offers "a structure in which people**

are given choices, rather than being left to work things out for themselves” (Mike Quarmby, pers. comm., Aug. 2006). They believed the independent setting up of enterprise is not possible in most places within the APY Lands, due to a lack of finance and skills.

This is also the conclusion drawn in a recent state-wide report on the Native Foods Industry and **Aboriginal people’s involvement in South Australia (Armstrong Muller, 2007)**. This report suggested that in order to obtain a commercial focus, enterprises aligning with existing commercial players such as *Outback Pride* are more easily able to overcome some of the features of Indigenous enterprises that often restrict their development – including: distance to market; limited access to influential connections and networks, information and expertise; limited ability to secure loans and credits; and, limited availability of well trained and educated workers and managers (*ibid.*, p. 14). However, when speaking with Brenda, the question is asked of why *Anangu* cannot be encouraged and supported to work things out for themselves. Brenda feels the *Outback Pride* approach is rather patronising and paternalistic, and feels the structure the Quarmbys have built seems only to aid their own business development, and therefore believes a larger commercial-**scale garden would be “their garden”**. In contrast, Brenda believes more active listening is needed by potential investors, to develop a successful, long-term, truly collaborative approach (pers. comm., July 2008). [Note similarities with comments on unequal business partnerships in north Australia as highlighted in Williams (2009) – referred to as ‘parasitic’ and ‘epiphytic’ businesses, whereby Indigenous people’s labour is used to supply fresh produce to non-Indigenous businesses.]⁴

HUMAN CAPITAL (HEALTH AND WELL-BEING)

The Mimili plot was established in 2004 and in September 2006 there were ten people enrolled in TAFE courses, studying for Cert. II in Horticulture and Cert. of Conservation and Land Management. Four women completed most of the units of these nationally accredited courses, which TAFE lecturer, Chris Williamson, said provided an interesting learning opportunity and source of enjoyment for the students while they applied their skills on a daily basis in the **garden. Extension activities based around students’ requests and interests included lessons on**

⁴ To develop the *Outback Pride* garden system at a new site, Mike and Gayle turn up and wait. Specific tasks are written down that need to be fulfilled before the next step(s) can occur – i.e., for the process to continue, there must be engagement on the tasks outlined at each visit. If not, Mike and Gayle come back in another month until stage two can occur (pers. comm., June 2006). This would appear to be an attempt at ensuring ‘ownership’ of the gardens; however, the question remains whether this is true empowerment. The overall structure (physical and managerial) is still imposed, and although Mike and Gayle speak of the gap between policy intentions and community realities, there also appears to be somewhat of a gap between what they themselves understand as community engagement and empowerment and what *Anangu* may regard as this - (as seen in the comments made by Brenda).

telling the time (in a place where no-one wears a watch) and daily diary-writing of plantings and activities. Meanwhile, thirteen people in Amata completed the Certificate I Conservation and Land Management (Horticulture). As part of their studies, TAFE students travelled outside of the APY Lands (to Kingston SE and the Riverland) to experience horticulture happening elsewhere and to learn new skills. TAFE lecturer, Marty Jukic, said the opportunity to exchange information, share experiences, and interact with people in other areas of the state and with varying expertise was a great experience which participants really enjoyed.

The horticultural plots in both communities were established with a great deal of enthusiasm and participation. Community members particularly appreciated the subsistence value of the plots, as initial desert raisin/bush tomato crops were completely eaten. Care was taken to look after the plots, with no vandalism at this early stage; rather, women, men, and children all harvested and ate in the plots (Williamson & Jukic, pers. comm., 2006). Still, from those who attended training during 2006-2007/2008, there has been minimal long-term garden involvement as many have since left their respective communities. Those few people remaining to work in the gardens longer-term report a lack of general interest among community members in the on-going maintenance of the gardens, and the feeling that the work is too much for one or two people. Amata community Elder, Stanley Douglas, expressed dismay at the lack of enthusiasm shown by many young people and asked what can be done when times have changed and the youth seem disinterested. This situation has left the Amata TAFE lecturer and the Mimili CDEP manager needing to oversee the gardens, with on-going maintenance usually dependent on the labour of CDEP workers.

During 2006-2008, two community members voluntarily attended the Amata plot on a daily basis. One was unable to receive payment (through the CDEP system) for his work, as he is non-Aboriginal; however, when I spoke with him, he said he loved gardening and kept busy with the activity. Most people, in contrast, only worked in the garden when appointed to the plot by the CDEP manager, often in consultation with the TAFE lecturer. In Mimili, CDEP workers said they enjoyed working in the garden as one of their activities, but in both communities, most community members only accessed the plots during harvest times, to eat the available produce, so the lack of human resources for on-going garden maintenance have meant **Mike and Gayle Quarmby's monthly visits have been important.** Additionally, much weeding and maintenance has been achieved during quarterly visits by correctional services work gangs.

Sixteen to seventeen people were involved during the early stages of the Amata garden, many of them women (Marty Jukic, pers. comm., Feb. 2009). However, in 2008, the Amata garden-helpers moved to Alice Springs and the garden has struggled to survive. Meanwhile, Mimili now has ten CDEP workers caring for the garden, mostly men. Only one woman who was initially involved in the establishment of the garden is still advocating for the garden, but she has found the personal stress associated with the expectations of the local community and external bodies **too much: “It’s too much for one person”** (Anon. pers. comm., Feb. 2009). The Mimili CDEP manager confirmed the need for more people, as there are many community projects to undertake.

“The fact is that \$10,000 worth of bush tomatoes goes into people’s stomachs in each community, each month” (Gayle Quarmby, pers. comm., Dec. 2007). People of all ages collect in the gardens until late in the evening when they are fruiting. The importance of the nutritional benefits gained from the garden become all the more poignant considering studies previously **conducted in the APY Lands have found that “*Anangu* can’t afford to be healthy”** (Trogenza & Trogenza, 1998; cited in **Nganampa Health Council, NPY Women’s Council, 2002**; p. 15). Nganampa Health Council records show that on the APY Lands the average life expectancy of Aboriginal adults is about 20 years less than non-Aboriginal men and about 15-17 years less for women. Obesity, vascular disease, and diabetes are nutrition-related lifestyle diseases that many *Anangu* adults suffer from (*ibid.*, p. 32). Studies have proven the health-enhancing compounds (Konczak *et al.* 2009) and nutritional benefits of bushfood consumption (McDermott *et al.* 1998; O’Dea 1984). Still, clinic personnel stressed the need to focus on a wide variety of prenatal and early childhood environmental factors (of which nutrition is but one) in combating poor teenage and adult health (APY Lands clinic staff, pers. comm., Feb. 2009).

Amata chairperson, Lee Brady, explains the *Anangu* association of health and well-being with bushfoods and the potential for the community garden and store to play an increasing role in this:

Anangu speak of bushfood as providing goodness, health, and well-being from the inside – that it works its way out, like a spiral. The importance of local bushfood consumption is self-evident when you look at our (lack of) health. The garden is important for this reason. People gain a lot of goodness from the garden plants. There are also important personal memories now associated with its construction and use.

You’ve got to have a reason to continue practising culture – like looking after wild stands of wattle to collect the seeds, and making sweet drinks out of grevillea flowers when it’s hot. In the past, hunger and thirst provided the reason; now, the community store has replaced these activities and foods... but the best foods are absent. Bushfoods

provide holistic health and for this reason there needs to be more local Anangu control over what foods are available in the stores. We should be working towards 'hiding' the bushfoods in other fad foods that the young people eat – new foods with traditional ingredients, with benefits for health and well-being. Bushtucker icecreams and cordials, pies, breads...
(pers. comm., Amata, Feb. 2009)

To date, local sales of raw produce depend on visual presentation of the foods at the community store counter. In the past, small packets of dried bush tomatoes sold well, provided they were within easy sight of the register – as people would then readily add them to their larger food purchases (Mimili storekeeper, pers. comm., Nov. 2006). Some foods that have been sold to the Quarmbys for value-adding off-site have returned in sauces and pies, but these products have not sold well. Bushtucker pies were developed by **Vili's** bakery in collaboration with the Quarmbys, in an attempt at making a popular fastfood healthier. However, they **weren't popular with community members** and local storekeepers did not continue stocking them. Reasons for their rejection may have been due to lower salt content, as lack of taste was an issue, as well as dryness (Amata storekeeper, pers. comm., Sept. 2006).

An Amata school teacher shared thoughts as to why the value-added products did not sell well: **"The sauces are 'exotic' and there are no skills/knowledge in how to prepare foods using them.** Lack of cooking utensils is an issue, as well as inadequate housing, cooking spaces, etc. These are some of the broader social reasons behind cultivated bushtucker use/up-take or not" (pers. comm., Sept. 2006). Still, community chairperson, Lee Brady, said he likes the sauces, (but not the ones with chilli), and emphasised the need to keep working on such fusion foods to make them more palatable.

Meanwhile, involvement in the bush medicine enterprise is motivating Jane and Brenda to broaden their skills. At the time of writing, Jane was doing a silk screen course as a resource for teaching, to have the young people involved in making boxes and kerchiefs for packaging the bush rub. Jane and Brenda see the possibility of building on the medicine-based enterprise resource through developing related products that could be marketed on-line as the business of the young people at the school/leaving school – to give them on-site choices. They are networking with key people outside of the community, to help develop ideas and art incentives - people who have "a breadth of forward planning and skills that help bring out and make the **most of people's inherent abilities and creativity"** (Brenda Stubbs, pers. comm., July 2008). They are also currently involving Indigenous Business Australia (IBA), to write a Business Plan.

NATURAL CAPITAL

There is still an active bush produce wild harvest, although dry conditions and feral animals have caused a depletion of wild stocks of many fruits and berries (see *Vulnerabilities* section below). *Mingkulpa* (chewing tobacco/pituri) (*Nicotiana excelsior*, *N. glauca*) is wild-harvested in the area and blended with ash. It is harvested for personal use and in-family distribution. However, in 2008, even *Mingkulpa* stocks disappeared in the dry conditions. (Chewing tobacco from the APY Lands is actively traded amongst kin across central Australia. Women in Laramba requested I source some for them, as the pituri from the Lands is in demand for its quality/strength.) The Quarmbys said they only grow plants native to the specific areas. They reported that in some places on the Lands, bushfoods growing in the wild were endangered due to grazing by camels and drought. Through research into historical texts, as well as talking with *Anangu* and studying contemporary art works, Mike and Gayle said they have been able to regenerate species on the verge of extinction. They have signed MOUs with the communities that state that they will not take up any Plant Breeders Rights (PBRs).

Jane Lester (*Amata Bush Rub*) said the strength of the bush medicine is a result of its growth under natural conditions, and for this reason they will continue to bush-harvest it. After initially investigating the possibility of horticulture (at the Alice Springs Desert Park and Adelaide Botanic gardens) it was found that the wild produce was stronger in its quality than plants grown in a cultivar context, under controlled irrigation. (Note similarities with varying nutrient levels found in wild vs. cultivated *Gubinge* or Kakadu Plum (*Terminalia ferdinandiana*); ref. <http://www.cherikoff.net/cherikoff/index.php?id=191> and Williams, 2009).

Jane said that samples were brought back to the old people in Amata and that the Elders decided on continuing the wild harvest, monitoring the pick (with the help of GPS) to ensure there would not be any over-harvested areas. Jane explained how in this way the process has evolved in a contemporary Aboriginal context, with more product being made out of minimal use of the plant while respecting the ideas and knowledge of the Elders by keeping them involved in all aspects of the enterprise development process. Another example, described by Brenda, related to the inherent quality of the *Irmangka Irmangka* product they have developed in terms of texture, colour, and smell. This involved extensive experimentation, to get the correct look, smell, and healing qualities, with feedback from the Elders sought at every stage. Brenda and Jane emphasised the non-wastage of the product and production process, stressing that all the plant is good for you. The efficient use of raw resources is a key eco-friendly fact

that is important in their product marketing. The skills base and the natural resources are there – the enterprise provides a reason to combine these.

In terms of bushfoods cultivation, Amata offers a good site for (bore) water. For this reason, there were initial plans to develop a five hectare plot in addition to the trial-size plot, where the larger plot would potentially **provide “real jobs” (i.e., salaried positions) for six or seven people**. However, this development is currently on-hold pending further SA government support and community engagement (early 2009). Despite good water resources, the irrigation of the fields has sometimes failed, due to people turning the tap off. The fruiting season of *Kampurarpa* /*Kampurara* (*Solanum Centrale*) has been extended through cultivation due to the treatment of the plants – pruning stimulates growth so the plants now fruit continuously from December through to March.⁵

PHYSICAL CAPITAL

Vehicles are needed to access the medicinal plant bush-harvest site. Brenda is also thinking of investing in a distillation unit to aid product development and diversification. There is need for greater physical space to develop, produce, and store the products (separate from the Amata Family and Community Centre premises).

In terms of the bushfoods garden, maintenance of infrastructure, including reticulation, fencing, and shade cloth has occurred through CDEP activities; however, past vandalism by visitors as well as wear and tear from the elements (especially wind) and feral animals (cattle, horses, camels) (see **Figure 41** below), have meant upkeep has been an on-going concern. Mike and Gayle spoke of further value-adding opportunities on-site being constrained by the lack of people in supervisory roles. They pointed to the cost of equipment and its upkeep and the need for on-going mentoring to ensure efficient outcomes for everyone involved. During 2008, lack of on-site CDEP management in Mimili resulted in the loss of most garden equipment. People also often borrow tools for domestic use (incl. shovels and rakes) but fail to return them. As a result, activities are often put on standby until new equipment can be sourced and trucked in. In early 2009, people were looking forward to getting a lawn mower to help clean up the weeds, making access to the bush tomatoes not only easier, but safer – as there is a fear of snakes being in the long grass (pers. comm., CDEP manager, Feb. 2009).

⁵ In late 2008, Amata swimming pool water backwashed into the garden, contaminating the soil. As a result, the 2009 harvest of bush tomatoes was non-existent at Amata, while Mimili enjoyed an abundant harvest of desert raisins and yams.



Figure 41: Feral animals often mean infrastructural maintenance is an on-going concern

FINANCIAL CAPITAL

Earnings from the bush gardens remain minimal to date, as these are trial plots only. However, during harvest time community members earn extra cash for pickings, paid according to weight. The Quarmbys pay pickers \$20/kilo for the *Kampurarpa /Kampurara (Solanum Centrale/desert raisins)* and \$10/kilo for the Tanami apples and bush bananas. In addition, an equivalent amount (i.e., \$10 or \$20/kg) is paid into a community fund for use in general plot maintenance. According to an MOU signed with each participating community, all fruit offered for sale must be bought, whether needed or not. Mike explained this was to increase the trust factor that they were **not going to "rip people off"** (pers. comm., Dec. 2007).

Mike stressed that compared to bush pick/wild harvest, horticultural financial return is greater as the best situation can see people pick approx. 1kg/hr (\$20/kg + ~\$17.00/hr. CDEP = \$37.00/hour). People in Mimili collectively earned over \$500 from each of several harvests in 2007, with individuals earning greatly varying amounts (\$12-\$150) on top of any CDEP wages earned for work in the garden (Mimili TAFE, pers. comm., 2007). With CDEP support, this can be quite good; however, limitations of the CDEP structure combined with frequent changes to on-site CDEP management have seen interest and participation vary considerably across time. In any case, payment to date has been minimal, as most produce is eaten. The size of the plots do not allow for much excess produce. Still, over \$10,000 worth of bushfoods was harvested in Mimili during 2005/2006 (Quarmby & Quarmby, 2006; p. 8), while Amata reported that \$6-7000 worth of produce was sold during 2006/2007 (Amata TAFE, pers. comm., 2007). Even minimal financial return based on picking alone has come in handy at certain times of need - including the time when men reportedly took a break from ceremonial business to harvest in the Mimili garden to earn needed cash (Mimili TAFE, pers. comm., 2007).

As regards the bush medicines, **the produce is mainly “for the people”, so there is a price differentiation to maximise local markets, and profits from sales are deposited into a community account.** The individuals involved in product development therefore all receive their personal income from external sources: Brenda as full-time Coordinator of the Amata Family and Community Centre; Jane as part-time lecturer at Taoundi College, Adelaide, supplemented with some initial enterprise development funding from the SA Department of Family and Community Services; the community Elders on government pensions.

Bush Rub product prices range from local community store-based ‘dirt price’ through to ‘bitumen price’ which is the broader, non-*Anangu* price:

Our ‘dirt prices’ are so that Anangu can access their medicine without unnecessary ‘mark up’. In addition, we sell via our stalls at wholesale price and via our website at recommended retail price. Basically we are saying that non-Anangu are buying over 40,000 years of knowledge in a jar (Jane Lester, pers. comm., Nov. 2009).

Local market outlets for *Anangu* customers include Amata store. However, a major problem to date regarding medicinal produce sales and finances is the lack of traceability of the sales made in the store. Brenda and Jane have decided as a result to now invoice the store, to save selling directly through them. This may mean the store will add its own mark-up, but Brenda would like **to argue against this, as the product is “ours”, to be maximised by “us”.** To date, money has been banked into a community account that may be accessed for non-funded Amata Community-based projects.

INSTITUTIONAL CAPITAL

There is de-facto institutional support for the gardens from the combined efforts of external agents, including Reedy Creek Nursery (*Outback Pride*), TAFE SA, and the SA Department of Premier and Cabinet. For the bush medicines, there has been limited external institutional support (SA Department of Family and Community Services), with emphasis instead focused on gaining official *Anangu* support and encouragement - for example, through the APY Lands Executive Council. Brenda explained how she and Jane received a standing ovation from the council after presenting their ideas for locally-based enterprise development. Brenda believed their focus on *Anangu* ownership and initiative evoked a sense of pride and respect amongst council members (pers. comm., July 2008).

5.3.3 Key contextual factors effecting Aboriginal people's involvement in commercial bush produce industries and benefits to livelihoods and well-being in the APY Lands

What follows is a summary of the key contextual factors found to be influencing people's livelihoods and well-being in the APY Lands case study region:

INFLUENCING STRUCTURES AND PROCESSES

Changes to CDEP arrangement and management; TAFE training and increasing employment focus

Labour and training in the bushfoods gardens have become CDEP activities in both Amata and Mimili.⁶ Upkeep of the garden typically requires 1-2 days/week work; however, TAFE lecturers talked of the lack of incentive and the restrictive set-up of CDEP in limiting the number of hours. High turnover of staff in the positions of CDEP manager and MSO (Municipal Services Officer; responsible for community budgeting and finance) have caused a lack of continuity and meant participant motivation has often waned. This has caused fruit waste due to people not being supervised to pick at the right time. For example, up to a third of bush bananas picked in Mimili were thrown out due to their large size and subsequent woody taste (Mike Quarmbly, pers. comm., Dec. 2007). Even when CDEP managers are on-site, outsourcing of the overall CDEP coordinating role to an Aboriginal corporation based in Port Augusta meant a loss of local power and locally-based decision-making, with resultant bureaucratic inflexibility in the name of accountability that all too often stifles the local initiative and creativity needed to get things done efficiently:

Decisions are often made out of the Lands, at a distance from reality.
(Mike Quarmbly, pers. comm., Dec. 2007)

This added level of external bureaucracy discourages communities from developing their own ideas and incentives. Alternatively, leadership skills should be encouraged and mentored on-site. (Lee Brady, pers. comm., April, 2008)

Having 12 CDEP managers in just two years means that there has been no continuity. Managers aren't here long enough to get a feel for how things work, to understand how the garden fits into things. I believe CDEP for this reason is not appropriate for the long-term sustainability of horticultural plots here in the Lands. Rather, a properly paid position (salary), whether on a part-time 2-3days/week basis, for someone taking a supervisory role is needed. This would provide incentive. Local Anangu should firstly be asked to fill such a position, but most often they aren't given a chance, as outsiders prejudge outcomes, believing things won't work (as per usual). But I say, if you don't give people a go...

(Marty Jukic, pers. comm., Feb. 2009)

⁶ As mentioned in Chapter 5.1, CDEP allows people to earn a standard \$240/week for 14 hours' work, or up to ~\$470 with top-up (28hrs/week).

Amata chairperson, Lee Brady, has been working on a possible alternative approach to the on-going care of the garden. He asked whether all CDEP activities cannot be based on interest and proposes that an expert group comprising people from all over the APY Lands join together in a cooperative supervisory role. Such a group could visit the various garden plots on a group trip basis, travelling to each site together to give supervision and advice. Lee thinks such an approach could help provide the necessary emotional support for the supervisors, whilst additional financial incentive (possibly salary-based) for their supervisory roles would help with motivation (pers. comm., Feb. 2009). (Note similarities with Indigenous Arts Officer roles within the Indigenous arts industry; a model also highlighted by the Quarmbys as having possible application in the bushfoods industry.)

People can be really keen one week, and then we'll never see them again. But this seems to be a common 'work ethic', not unique to the horticultural plots. In fact, there is generally more interest shown in work on the plots (than CDEP activities elsewhere). (TAFE lecturer comment)

The garden is predominantly seen as a source of food. Most people remain aloof to the idea of the garden as enterprise.

(Sue Packer, pers. comm., former Amata MSO, April 2008)

A push for larger commercially focused plots is coming from the state government. In 2007, the **State Government's Aboriginal Affairs and Reconciliation Division (AARD) and Department of Premier and Cabinet** commissioned a report on the status of the South Australian bush foods industry and Indigenous participation (ref. Armstrong Muller, 2007), including the preparation of a business plan case study for the possible expansion of the bush foods garden at Amata. The emphasis was on increasing employment opportunities in the APY Lands; however, details of the business plan were not released for public discussion during the course of the PhD.

Still, the question remains whether a larger plot offering full-time employment (for up to seven people) will attract people or not – i.e., a fulltime salaried position, not CDEP dependent. Vacant salaried positions are currently available in both communities, but they have not been filled (e.g., at the shop and the school), so the question is whether waged employment in the bushfoods enterprise will fair differently? Participation in TAFE courses and work in the garden to date has tended to be very sporadic – e.g., one month full-on, followed by several months' absence. (Exceptions include Elders with on-going interest in the garden and who often worked in horticulture and/or pastoralism during the mission years.) TAFE lecturers stressed the resultant flexibility necessary in the TAFE approach for people to gain certificates and qualifications at their own pace.

Cultural norms and obligations; intercultural realities and challenges

The tendency for people to come and go from the TAFE programs, working intensively, then taking time off, aligns with a traditional (hunter-gatherer) 'work ethic' based on cycles of seasonal abundance and scarcity, interspersed with leisure and socio-cultural obligations (Altman, 1987). The ceremonial or religious year requires extended absence during the summer, which is also the harvest time for many cultivated bushfoods. *Anangu* often travel throughout the APY Lands and further afield visiting relatives and playing sport; some also spending extended time in Alice Springs or Adelaide to receive medical care. Preference for a flexible work ethic that recognises, and can accommodate cultural norms and obligations may account, in part, for the failure to take up the vacant full-time salaried positions mentioned above, as they would presumably require commitment to more rigid work hours.

As has been mentioned for other sites, TAFE lecturers and CDEP managers reported garden activities and horticultural studies being divided by gender. Generally, the men work on the infrastructural maintenance and do not work together with the women, as such work is **obviously "kungka work" (women's work)**. Separate TAFE classes have often been held as a result. A female lecturer reported depending on a (male) CDEP manager to encourage the men **to complete tasks in and around the plots, as "only really he could get the men doing the work"** (Mimili TAFE Lecturer, pers. comm., 2007) (ref. also Hamilton, 1980 regarding 'homosociality', whereby gender relations and power complement each other, but remain quite separate, with joint gender and gender-exclusive domains).

The monetary economy does not translate easily to the *Anangu* traditional social set-up, whereby resource access and use was based on demand-sharing of goods (Peterson, 1993). Mountford (1976) described the custom of giving and receiving which dominates Aboriginal life:

This reciprocal giving and receiving (known locally as ngapartji ngapartji) formed the basis of gift exchange between adjacent tribes, and even distant people. ...the fundamental law of Aboriginal life is reciprocity. (p. 50; parentheses added)

The cultural expectation and obligation to share CDEP income earned from labour in the garden may put excessive pressure on people and deplete them of motivation (for a discussion on the 'corruption' of traditional principles of sharing and reciprocity as a consequence of welfare policies, service delivery, and the cash economy (including CDEP payments) ref. Finlayson & Auld, 1999, Smith, 2000, and Pearson, 2000). Still, there are other factors at play, including power differentials and inequalities that also impact on these transactions (Macdonald, 2000; Martin, 2001).

I spoke informally with two *Anangu* garden enthusiasts who were formerly heavily involved in the bushfood gardens in Amata and Mimili respectively - (both having played a very active role in their initial set-up) - but who now, although still residing on the APY Lands, are engaged in a range of other activities. Reasons for leaving work in the bush produce gardens included classic symptoms of 'burnout'⁷ - including physical and emotional exhaustion, reduced sense of accomplishment, and resultant diminished interest (Maslach, Jackson & Leiter, 1996). These ex-gardeners spoke of the stress associated with being one of few key people involved in the garden work - of a situation involving increasing pressure to fulfill multiple tasks and perform without adequate (professional and emotional) support. One in particular, a community Elder, perceived the human resource lack to be, at least in part, due to a seeming lack of interest amongst young people to work in general, and contrasted this with the enthusiasm shown towards the horticultural work people engaged in during former mission days.

Industry standards and registry requirements

The requirement that medicines must be registered on the Australian Register of Therapeutic Goods is likely to present a significant (but not insurmountable) barrier to the commercial development of traditional remedies. (Morse, 2005; p.31)

In regards to the correct labelling of *Irmangka Irmangka*, according to health laws and regulations, Jane Lester explained how she investigated The Therapeutic Goods Act 1989 via the internet. As a result, the term *Bush Rub*, rather than 'Bush Medicine', was chosen for product description - as products claiming 'Medicinal' qualities must be tested and registered: "therefore we called our product *Bush Rub* and claim that it soothes not cures" (pers. comm., Nov. 2009). (Note: this approach aligns with the de-centralised approach to IP protection and product authentication advocated by Whitehead *et al.*, 2006). In recognising that the Therapeutic Goods Act can pose some challenges, the Aboriginal Bush Traders Bush Harvest Project recently developed a support manual (<http://www.aboriginalbushtraders.com>), detailing information in regard to product development, legislative requirements, labelling, and quality control.

⁷ "Burnout is a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do 'people-work' of some kind. A key aspect of the burnout syndrome is increased feelings of emotional exhaustion. As their emotional resources are depleted, workers feel they are no longer able to give of themselves at a psychological level. Another aspect is the development of negative, cynical attitudes and feelings..." (Maslach & Jackson, 1981; p. 99).

VULNERABILITY CONTEXT

(Lack of) Access to information; (Lack of) ownership and control

Brenda Stubbs of Amata spoke of the importance of information exchange and the sharing of knowledge and experience in developing bush produce enterprises. She suggested that an on-site internet cafe would greatly help support a place where people could surf for information, (as opposed to the current TAFE and school-based outlets, where access is externally controlled). Jane always travels to the community with samples of others' **work and produce so** people can see/get an idea of what others are doing elsewhere. Brenda has previously arranged for visitors to Amata to spend time sharing knowledge and would also like to give *Anangu* the opportunity to travel and meet with others to exchange ideas, methods, and stories. The TAFE has organised travel to date relating to the horticultural enterprise. Feedback from participants from their trip to the south-east of South Australia was extremely positive (Marty Jukic, pers. comm., Dec. 2007).

"Big frogs in little ponds" – that is how Amata chairperson, Lee Brady, described the various commercial players in the bushfoods industry. He believes ownership is being taken away from *Anangu* and to exemplify this he asked:

*If you add a bush tomato to a tomato, why do you end up with a bush tomato?... I mean, a 'bush tomato' label is put on produce that is predominantly made of (domestic) tomatoes. This serves only to short-change us (*Anangu*) and our plants.*

(Lee Brady, pers. comm., Feb. 2009)

Lee feels frustrated by the way some commercial bush food products only contain around 8% of the actual bush product (although this is not the case with *Outback Pride* products), and yet these products are sold on the basis of the bush food connection. He spoke of the broader socio-political context and its effect on food production and control. He takes an anti-development stance similar to that of Helena Norberg-Hodge who has written extensively on the value of ancient knowledge and the numerous disadvantages of globalisation, including biocultural monoculturalism (Norberg-Hodge, 2000a,b). Lee admits the bushfoods garden is not currently working, but he declares it is still important:

The approach is wrong. Ownership of the garden isn't there. We're currently trying to work out the best approach to take – individual ownership? family-based ownership? or a supervisory team approach? As things stand, everyone thinks 'well, he/she isn't helping in the garden, ...so I won't'. We need to work around this.

(pers. comm., Feb. 2009)

When speaking with Amata community members, the overall perception towards the bushfoods plot seems overwhelmingly positive; however, Brenda Stubbs has also asked and found some people in the community feel the production of the Reedy Creek garden plot is being controlled

by outsiders (non-*Anangu*), as raw produce is taken away and modified. Still, as some produce is also left to the community to consume, Brenda reported some people not really understanding why this produce was left by Mike and Gayle Quarmby – i.e., according to Brenda, some people are a little perplexed (including Brenda) as to why these outsiders have taken this approach. (This is despite Mike and Gayle sending through monthly newsletters to each community in an attempt to keep people informed.) In comparison, Brenda spoke of the desire to cut the middleman out of the *Bush Rub* enterprise, so production, value-adding, and sales can all be controlled on-site by *Anangu*. Similarly, for the garden, Lee spoke of setting up a database to help track produce details on-site - a system that could help inform community members about how much is grown, how much is eaten, and how much is sold. He would like to improve on-site understanding and control of resources and sales by documenting information on the plants, such as seasonality, sales made, and volume turned over (pers. comm., May 2008).

Jane and Brenda's mantra is '*Anangu* product for *Anangu* benefit'. Accordingly, they keep a tight hold on the process. For example, their process makes dark-coloured produce, which they say relates to the potency. They sought assistance on Intellectual Property (IP) rights and regulations and now know that geographic markers (place-based labelling) help protect their specific bush medicine products. Brenda spoke of the pride associated with people doing things for themselves – rather than things being outsourced. She remains adamant that the way forward is for the development of business and control of product development and finances to remain in the hands and power of *Anangu* people, speaking of the "learning from inside" that is necessary (note: this combines well with the "active listening" highlighted by the Ceduna people in Section 5.1). By way of contrast, she described the business enterprise models constantly placed on/in the Lands as "models that make whitefellas rich, and rip Aboriginal people off" (pers. comm., July 2008) (ref. 'parasitic' and 'epiphytic' business models in Williams, 2009). The bush rub enterprise has taken a community-based approach, with all financial returns going into a community account. This joint ownership of resources and produce has been positively received by community members to date (*ibid.*; Lee Brady, pers. comm., May 2008).

HORTI-CULTURE AND CULTURAL LOSS

Do I think Aboriginal people are benefiting from being involved in the bushfoods industry, or will benefit from it?... I suppose generally the answer is no. I think researchers have benefited from it. They're getting paid large wages, they're getting to travel around the countryside, they're influencing this kind of new and developing industry, and it is a really small industry and there's not much money to be made in the industry... And then, if it does grow and things start being grown commercially, farmed or horticulture, then of

course we know that the benefits won't go back to Aboriginal people. Even any kind of agreements that might be made in terms of IP arrangements, are so complex and such a large undertaking to work out. (Anon. Aboriginal informant, Central Australia, August 2008)

As Courtney (2007) argued, while traditional Aboriginal people across Australia had an intimate connection with native plants, many had their first experience of plant cultivation, i.e., tilling the soil, plant propagation, and basic irrigation, on the early cattle stations and missions. In the APY Lands, many *Anangu* worked in market gardens established on the Ernabella mission. Missionaries grew domestic vegetables and fruits in an attempt to increase the self-sufficiency of these isolated settlements. Yet, despite this historic horticultural connection, the level of enthusiasm towards the contemporary cultivation of bushfood plants in the APY Lands has fluctuated. Mike Quarmby said all the Reedy Creek horticultural plots are dependent on himself and Gayle visiting once a month, to encourage people to keep going – i.e., to physically get people out there in the gardens. He said people enjoy the ready supply of foods when they are in season, but on-going maintenance of the gardens requires constant physical labour in which only a few people seem genuinely interested (pers. comm., June 2006).

In comparison, *Anangu* speak with delight of trips to Country to collect food in the wild, and how to tell when things are ready - knowing when to look for produce according to certain blooms, after rain (e.g., *Maku* witchetty grub and *Tjala* honey ant), the inter-dependence in nature, that is not apparent in the horticultural situation. Subsistence harvesting trips throughout the APY Lands occur relatively often but happen rather opportunistically, for example when trips are organised by people with vehicles (e.g., **women's centres; health centres**).

Is the European horticultural model therefore culturally inappropriate? Nash (1993), for example, observed Aboriginal gardening techniques in central Australia, only to conclude that Aboriginal home-gardening involves differing techniques to European gardening and that such techniques are not fully understood by outsiders. In Amata, community members seem pleased to have the snacks readily available, but after harvesting, the crops were left – i.e., no follow up with the actual care of the plants. The garden gives seasonal monetary return, but outside of that season there is perhaps little meaning attributed to the garden. Rather, it is a public space that is open to misuse/vandalism.

Anthropologist, Ushma Scales, lived and worked in the APY Lands for much of his life. In his opinion, there is a fundamental incompatibility of hunter-gatherer people with horticulture,

based on the opportunism and mobility factor (Musharbash, 2008) versus the time needed to maintain gardens. He believed that the main impact/involvement by *Anangu* in the bushfoods industry would therefore be through knowledge transfer and wild harvest (pers. comm., Sept. 2007). This opinion is supported by comments in the APY Lands Fire Strategy, 2004 (cited in McFarlene, 2005; p. 38) that emphasised the role of the *Tjukurpa* (Dreaming) in bushfood production, and the idea that consciously managing natural resources to maximise growth and return of raw produce may not be culturally appropriate (*cf.* Myers. 1986).

In contrast, the process of developing the bush rub enterprise is very much focused on culture. Based on IK/TEK, involving the community Elders, and encouraging inter-generational knowledge transfer, the process is culturally-based and respectful of the protocols required according to the *Tjukurpa*. Such protocols include the sharing of returns from the stewardship and harvesting of plants, emphasising community-wide benefits to livelihoods and well-being. The Amata Chairperson stressed the importance of recognising and supporting this cultural basis of bush produce, to prevent the commercial industry from becoming another form of cultural (mis)appropriation:

*There is so much knowledge here, but if there isn't a reason to pass it on, it **will** disappear. The scaffolding of traditional knowledge is falling down. The young people are still learning the stories, but they don't know where they relate to (in the landscape)... (they've lost their point of reference, their sense of connection to place). 'Time' is a factor contributing to this loss. People no longer have the time to spend on Country like they used to. Shorter trips mean the knowledge base, the scaffolding is being diminished. Other activities now take priority which very often limit access to Country. 'Work' is culturally defined and focused (on white cultural priorities), mostly overlooking the need to keep Anangu culture strong. Activities have been commoditised and these activities subsequently pull people away from other activities that may be of more urgency (including inter-generational knowledge transfer and biocultural sustainability). Painting was an activity originally linked to such culture-strengthening activities, but now...? The bushfoods industry is now taking away the foods like the power the government routinely takes away.*

(Lee Brady, Feb. 2009; extra comments added in parentheses)

Diary of a PhD

February 2009

I'm sat at Lee's campfire, under the Milky Way. Roo tails and chicken soup for dinner. Two little boys are chasing their dogs, waiting for dinner to be cooked. A roof of stars, a floor of dirt, happiness and laughter... An enormous widescreen TV flickers fluorescent images of another world into the shadows of the fire. There is a program on child-rearing and midwifery in an inner-city suburb (Sydney/Melbourne?). I reflect on the pressure to conform to the 'mainstream' – and yet, equitable health and well-being must involve respect of difference and the support of cultural vitality...

In direct contrast to these thoughts, in a brief study conducted in 2002 focused on the current and future role of Aboriginal people in the Native Foods Industry, it was concluded that **Aboriginal peoples' knowledge was *not a key ingredient*** to their involvement in this industry (Lewin, 2002). This conclusion was based on interviews conducted with industry players at a government and organisational level, and involved minimal input from Aboriginal people. As a result, the obvious question is "**'not key' to whom?**" In the same report, Lewin wrote that "**rural communities**" are not likely to become involved in horticulture, "**as there is little commercial interest in these areas and access to their native foods is, for the most part, unlimited**" (2002, p. 45). Apart from the term 'rural' remaining undefined, this view was based on limited understandings and discussions and therefore cannot be taken at face value. In fact, **in many remote regions, native foods are not "unlimited" due to a variety of factors including** feral and domestic animals, invasive grasses, modification of fire regimes, and climate change (see section below). While identifying broader benefits likely to be obtained from industry involvement – including, employment and training opportunities, health benefits, and strengthening of culture – Lewin also described Aboriginal culture and value systems as being a "**potential hindrance**" to this involvement (p. 45), as small-scale, family-focused enterprises "**could easily be left behind in the industry as large corporate farming takes over**" (p. 46). Consequently, Lewin surmised **that it is "those entrepreneurial and more westernised Aborigines (*sic*) that will most likely be forerunners in the industry in the future"** (p. 46).

The hegemonic discourse of non-Aboriginal society dominated the Lewin (2002) report, largely dismissing alternative ontologies and epistemologies particularly in regard to enterprise development and involvement. While stressing the importance of recognising Indigenous systems of governance to help protect the land and access to its resources, the report downplayed the potential of industry involvement in nurturing and strengthening Aboriginal knowledge transfer and use. This report was completed over a decade ago, based for the most part on interviews with non-Aboriginal industry players, and although in the interim there has certainly been progress made in terms of more collaborative research and industry development, there is still much that needs to be done by governments and industry to ensure the endorsement and protection of Indigenous Intellectual Property Rights (IIPRs) – to encourage bush produce enterprises that are owned, operated, and managed by the owners of the cultural knowledge that forms their base (Williams, 2009); and to protect such enterprises **from the "potential hindrance" of western corporate culture and value systems.**

Feral animals and introduced plant species

There has been immense change in the region's ecology and deterioration in its biodiversity over the last century (Robinson, Copley, Canty *et al.*, 2003). Several causes have been suggested, including climatic change, changing hunting patterns, pastoral occupation, feral animals and introduced plants. The rabbit, for instance, appeared around 1901 (Finlayson, 1961) and reportedly now eats bushfoods (Gary McWilliams, pers. comm., 2006). Other feral animals, including donkeys, goats, and camels are known to eat quandongs (*Santalum acuminatum*), and there has been a loss of native grass species and habitat due to introduced buffel grass (*Cenchrus ciliaris*), increasing fire carrying capacity and threatening fire intolerant flora and fauna (http://www.nt.gov.au/nreta/parks/walks/pdf/Bufel_Grass_web.pdf). Camels also cause damage to garden fence lines (e.g., as occurred in Mimili community) – so there is the added expense of camel-proof fencing.

Anthropologist and long-term resident of the APY Lands, Ushma Scales, described his passion for cultivating the quandong as a result of seeing this native fruit disappearing in the Lands, due to what he saw as a combination of feral animals (including camels and donkeys), buffel grass, changed fire management regimes, and cattle (pers. comm., Sept. 2007). He established a beautiful quandong garden just south of Alice Springs where *Anangu* are welcome to come and harvest from the impressive fruit-laden trees in September. For future generations, this cultivated grove will be one of only a handful available to *Anangu* if environmental care programs fail to halt detrimental environmental change.

Differing priorities in market development: broader livelihood values vs. pure profit

Jane Lester explained how the method they have adopted with the Amata *Bush Rub* enterprise requires *time* - which is one commodity that the commercial world loves to control and minimise – i.e., “pick in the morning and make the produce in the afternoon”. However, this is based on purely monetary returns (cf. broader livelihoods and well-being). Jane said that she prefers the ‘little steps’ – “things progressing in an organic way is best” (pers. comm., July 2008). Jane's sister, Brenda, also talked of the research done by Jane and herself into the broader development of the enterprise as a business as “happening at a manageable pace” – i.e., they are finding out and answering their queries as they go along, and this has worked well until now. To develop future product lines, they are looking at ways they could access skills through grants, to help broaden their base – but, they refuse to take on an external structure such as that of Reedy Creek/*Outback Pride*, as this is inherently externally developed and aligned, and essentially non-*Anangu*.

Brenda currently champions a “coop-style” approach in the thought that this may be the best way to encourage and engage with the *Anangu* way of sharing. She thinks, however, that individual place-based labels would probably be best. She and Jane are still investigating and thinking about the best way to move forward; however, they consider the enterprise and returns really should ultimately be APY Lands-wide if possible.

Jane said that the Adelaide market, in particular, has been hard to penetrate – **“people say ‘yes, we’re interested’..., but, also ‘we can’t afford it’ ”** (pers. comm., July 2008). To date, most sales have either been direct, via the internet, or via the *Tjampitj* (Alice Springs) and Amata stores (these two retail outlets catering mainly to a local Aboriginal market). Jane also said that many shopfronts mark up their prices - up to 150%. When Jane found this out, she then increased the wholesale price, so as to maximise the returns to the community. She explained that, in this way, the major dilemma remains **the mainstream business ‘ethic’ of “profit first!”** Brenda also experienced this ethic in regards to commercial wild-harvesting for seeds that occurred in the area four years ago. She said people were paid about \$10 per garbage-bag full, **“which is extortionate, considering the amount of work, effort”** (pers. comm., July 2008). Brenda said it was the negative effort:work ratio that caused the lack of continuing interest.

In 2005, Morse similarly **highlighted what he termed “bushfood’s embarrassing dark secret”** – i.e., the lack of genuine acknowledgement and support for Aboriginal traditional knowledge in the emerging industry, coupled with a purely market-based approach. He wrote:

While most reviews of the bushfood industry mention (usually obliquely) the role of Aboriginal knowledge, and express the idea that Aboriginal interests should be acknowledged somehow, none of the studies considers, in any serious way, the special place of Aboriginal traditional knowledge or the placement of Aboriginal settlements in terms of enterprise development or prospects for growth. Even less does any analysis carried out to date acknowledge or describe the less than level playing fields that Aboriginal groups face when attempting to participate in what are fast becoming mainstream economic activities (p. 28).

This is clearly still the case today, from the information gathered by this research.

COMMUNITY STRENGTH

Brenda is a member of a leadership committee that has been established in Amata. The committee is focused on re-establishing the cross-generational respect that has broken down in recent years – **“bringing back ‘respect and pride in yourself, your culture, and your people’, by using and building on the knowledge and skills people already have”** (pers. comm., July 2008).

Community-based feedback to date in regards to the community-based funding arrangement for the bush rub enterprise has been positive – **“people think it’s good that one person only**

doesn't profit" (Brenda Stubbs, pers. comm., July 2008). The APY Executive Committee showed a proud response to the concept of 'their' vs. 'my', and the community-based approach subsequently met with full council approval and support (*ibid.*). Brenda felt the fact that everyone has the option to have a say in the way things develop means that "the control is ours". This is vital to motivation and creativity – which Brenda sees as a disincentive in the Reedy Creek/*Outback Pride* connection, where produce is taken off-site for non-*Anangu* benefit, while *Anangu* are relegated to the base level of the value-chain. This, she said, is not conducive to sustainable and widespread enthusiasm (*ibid.*). Money from bush rub sales is all banked into the Amata community bank account for use on projects to better life and well-being in the community. The transparency of such transactions, combined with broader community input into ways in which the funds are utilised, may have also helped lessen internal jealousies of the style mentioned in other case studies.

5.3.4 Case study summary and conclusions

KEY ASSETS AND STRATEGIES

Major benefits and risks/issues from involvement in the industry as seen in this case study include:

BENEFITS	RISKS / ISSUES
Inter-generational knowledge transfer through the bush medicine enterprise	On-going loss of Traditional Knowledge
Pride in <i>Anangu</i> ownership and control of the bush medicine business	Lack of ownership and control of bushfoods produce and process, and subsequent lack of long-term motivation
Formal skills development and national certification (bushfoods)	Lack of information about support available to get to 'the next level' of the bush rub enterprise
Community funds for use in youth welfare, livelihood and well-being enhancement (bush medicine)	Lack of a financial incentive to participate fully in the bushfoods enterprise (e.g., wage/salary) and lack of a standardised pricing policy based on effort (for former wild-harvest in this region)
Creativity enhancement (bush medicine); spiritual/well-being benefits	Stress from lack of workers; high turnover of participants and supervisory staff
Health of Country – including the re-introduction and conservation of endemic species through cultivation (bushfood gardens) and on-site monitoring for sustainable use of bush medicine plants	Vandalising of some garden infrastructure (minimal – usually unsupervised children and/or visitors) and accidents (e.g., Amata swimming pool backwash causing ground contamination in 2008)
Nutrition (from the bushfoods)	Local market by-passed

To help ameliorate the risks and increase the benefits, there are many livelihood strategies being employed, including:

- the linking with private enterprise (bushfoods)
- the use of kinship networks for enterprise expansion and marketing (bush medicine)
- the involvement of young people in enterprise development to help maximise inter-generational knowledge transfer
- the learning of new skills to facilitate both enterprise and personal growth
- keeping wild bush harvest activities happening and involving Elders in all stages of enterprise development (bush medicine).

The following discussion is focussed on ways to increase the benefits and minimise the risks, by further analysing the impacts on each of the livelihood assets. It is based around key concerns and insights that arose in discussions and interviews during five weeks of field research in the APY Lands. Adding insight from the literature referred to in Chapter 4, to make involvement in the industry a sustainable livelihood strategy for Aboriginal people living in this region of Australia's Arid Zone, the following considerations need to be made, and actions taken:

Producers

have cultural rights and responsibilities; need opportunities for intergenerational knowledge transfer; seek local ownership and control

Our project's initial aim is to encourage Anangu (both old and young) to tell and continue passing on the 'Story' of making 'Bush Medicine'. ...In the process of creating and making these products, the Anangu that are involved are not only preserving the traditional ways of using plants in treating ailments but are also bringing Anangu back together to help pass on traditional practices that have been carried out for tens of thousands of years...Learning and Sharing for young and old.

(Irmangka-Irmangka (Bush Rub) project information pamphlet)

The bush rub enterprise is based on social and cultural hopes and aspirations, actively encouraging intergenerational interaction through the involvement of the school, and visiting Country to collect produce. In contrast, the bush foods enterprise is not overtly linked to traditional knowledge enhancement. During the garden plot establishment phase, people travelled out to Country to collect plants, and many people were involved in the initial planting. However, over time, the number of people involved in the garden has fluctuated and dwindled. Perhaps by allowing greater opportunity for traditional knowledge to be incorporated into the bush foods enterprise – e.g., through supplementing garden collection with fieldtrips to

Country, and through encouraging more interaction between young people and Elders through the school, interest would increase in garden maintenance through the socio-cultural association.

Brenda and Lee spoke of the long-term development of *Anangu* -based industry structures, emphasizing the need for local ownership and control. Lee also spoke of needing a “reason for practising culture” and tied this in with the local food market, stressing the need for the holistic nature of bush foods to be recognized and included in community stores, with “more local *Anangu* control over what foods are available in the stores”. This could tie in with the *Mai Wiru* (Good Food) regional stores program currently in place, aimed at improving health and well-being by ensuring continuous access to safe, nutritious, and affordable food and essential health items through community stores (see *Mai Wiru* Regional Stores Policy <http://www.healthinonet.ecu.edu.au>).

External Partnerships

Outback Pride; TAFE SA; SA Govt.

are needed for skill development; need to be based on trust and long-term relationships; require flexibility to encourage endogenous forms of enterprise development

The importance of relationships in developing social capital is apparent, particularly in regards ‘partnerships’ comprising family members and friends. Such “bonding” social capital (Gittell & Vidal, 1998) has combined with “bridging” social capital (*ibid.*, 1998) of more distant friends and associates, to help to date with market expansion of the bush medicine. Still, the ‘vertical dimension’ of social connections (or “linking” social capital) (Woolcock, 2001) to people in positions of power is needed to facilitate further skill development.

Whether salary or more flexible contract-based employment would be more suitable would need to be worked through with the help of small business advisors and mentors. Programs like, for example, *Stepping Stones for Tourism* in the NT have helped Aboriginal individuals and communities explore their ideas for (tourism based) enterprise development. Developed from a participatory process, the program provides a flexible tool to help balance Care of Country with the goals of business development (ref. <http://steppingstonesfortourism.net>). Jawun (2010) also describes learnings from its corporate partnership model that makes use of reliable long-term, on-site mentoring arrangements. Such partnerships are also crucial to the development of fair financial returns, as remuneration for maintenance of the bushfoods gardens has relied on CDEP payments to date and (short-term) government grants for infrastructure development.

There is a need to investigate alternative sources of funding that are conducive to on-site mentoring opportunities aligned with broader enterprise skills development, in accordance with locally identified needs and interests.

Local Market

is key to local-level livelihood and well-being returns; provides a substantial opportunity for sales; requires price differentiation in accordance with knowledge sharing and ownership

and

Broader Market

needs to recognize the cultural values and social justice issues at the basis of bush product enterprise development; can be contacted/informed/interacted with through the internet and other forms of digital technology

The local market is very important in facilitating the pride associated with local ownership and achievement. Additionally, the more people who benefit from enterprise development and involvement, the more people are likely to support the idea - minimizing intra-community jealousies and helping relieve some of the stress and isolation often experienced by individuals in supervisory positions.

There also needs to be continuing education of the (broader market) consumer, encouraging more ethical and appreciative consumption. **Labeling can help to some degree (like "Jobs and Employment for Indigenous Australians" written on the *Outback Pride* brand products)** and information pamphlets and websites (like the *Irmangka Irmangka* pamphlet and corresponding website: <http://www.bushrub.com>) will be important to further support from customers interested in supporting Indigenous communities (Spencer & Hardie, 2011). Indigenous chef, Mark Olive, has also helped grow the domestic bushfoods market with his link to the *Outback Pride* project and brand, marketing the products while explaining their origins and links to people and Country, their flavours, and demonstrating their uses through a television series and **cookbook entitled "Mark Olive's Outback Café: A Taste of Australia" (Olive, 2006)** – which feature both the Amata and Mimili bush food gardens.

5.3.5 'Value, Contribution, and Shortcomings' - Adaptation of the SL Framework to the APY Lands

The following two points are observations on the development process of a Sustainable Livelihoods Framework suitable for use with Aboriginal people living in the arid region of Australia. They are based on the discussions and interviews conducted with residents of Amata and Mimili during five weeks in the field, and bush produce industry stakeholders connected with this region over the period 2006-2009, as well as the review of the draft SL framework (**Figure 7**, Chapter 2):

- **Rather than forming a distinct 'institutional capital', external professional support needs to be socio-culturally appropriate and therefore naturally sits better within the 'socio-cultural capital' subsection of the overall assets** (as in the Ceduna workshop, see Section 5.1).
- The contextual factors have such an influence on local assets. They really do determine how/whether assets are realised and utilised; therefore the circle representing these factors and enclosing the assets is an accurate depiction of just how influential they are. (See **Figure 7**, Chapter 2).

5.4 Two individual case-studies from Alice Springs, Northern Territory

This section presents two bush produce enterprises that are based in Alice Springs (see **Figure 42**). Its layout is slightly different from the former three case studies, as it is based solely around excerpts from transcripts of discussions with the business owners, which were organised around specific questions (see **Appendix 3** for a sample of the style of questions). The formal interview method was most suitable for involving these people in the PhD research, as they are extremely busy building their businesses, with very little time to spare. Still, the **interviews were not done 'blind'** – i.e., in both cases a rapport was built over time (eight months and three years respectively) before conducting the interviews. This was important to build a relationship based on mutual trust and respect. The interview with Marilyn and John Cavanagh, took place on June 16th 2008, at Olive Pink Botanic Garden, Alice Springs, and was recorded in writing. The interview with Rayleen Brown was tape-recorded on June 24th 2008, at *KungkasCanCook* premises, Alice Springs.

5.4.1 Research setting



Figure 42: Downtown Alice Springs from Anzac Hill, looking towards Heavitree Gap. The city is located on the banks of the (usually dry) Todd River, which passes through the gap in the MacDonnell Ranges.

HISTORY, SOCIETY, AND CULTURE

Before the arrival of Europeans into central Australia, *Mparntwe* (Alice Springs) was a meeting and ceremonial place for the *Arrernte* people. *Arrernte* country is rich with mountain ranges, waterholes, and gorges, and the *Arrernte* were intimately connected with their ancestral lands through their spiritual beliefs, establishing a fine balance between people and their arid homeland based on a relationship of respect and reciprocity (Spencer & Gillen, 1899, 1927; Strehlow, 1947, 1970, 1971).

European exploration during the 1800s began to change the way the desert environment was viewed and treated. Missionaries, pastoralists, and miners increasingly travelled to the centre to save souls and seek fortunes. In 1871, surveyors working on the construction of an overland telegraph line found a waterhole north of a gap in the MacDonnell Ranges. They named it Alice Springs after the wife of Charles Todd, the project manager, and a small settlement grew nearby. The telegraph line opened up inland Australia, and in 1928 the Ghan rail-line was completed from Adelaide, bringing further growth and development.

POPULATION, ECONOMY AND INFRASTRUCTURE

During WWII, the population of 'the Alice' was around 350, plus 8000 soldiers who were training in the desert before being deployed to Darwin. Troop movements encouraged road development, helping establish the town as the major service centre for central Australia. Tourism soon followed and remains the main industry, with Aboriginal culture and art at its core. (For an insight into the tenuous nature of Aboriginal tourism see Schmiechen & Boyle, 2007; also, for discussion regarding the transformation of central Australian Aboriginal art into objects of international high art see Myers, 2002).

Alice Springs has a seasonal population of 25-27,000 people. *Arrernte* people maintain a strong presence in the town, and many also live in communities and outstations/homelands spread across the surrounding region. It is estimated that *Arrernte* language is spoken by about 2000 people throughout this region (<http://www.iadpress.com>).

BUSH PRODUCE INDUSTRY DEVELOPMENT AND INVOLVEMENT IN THE REGION

There are a growing number of individuals and organisations involved in bush produce enterprises throughout the Alice Springs region, ranging from: the work of Desert Knowledge Australia and its associated Cooperative Research Centre (CRC) into horticultural production and increasing the promotion of bushfoods through festivals and competitions (including an annual

bushfoods/ wildfoods event); town camp gardens that have come and gone; native plant production at Tangantjere nursery to supply communities with seedlings; horticultural training and support provided by TAFE and Charles Darwin University (CDU); to the development of economic zones based around bush produce and other horticultural crops by Centrefarm and the Central Land Council (CLC). Central Australian bush harvest wholesalers live in the Alice; Afghan Traders is a local retail outlet selling a variety of value-added products; bush medicines and bush jewellery are sold in the Alice Springs Sunday market on the Todd St. Mall; and many restaurants have bushfoods on their daily menus.

Yalke Bush Rub



Marilyn and John Cavanagh, Todd Mall markets, Alice Springs

In the **Alice Springs'** Sunday markets, you are likely to see Marilyn and John Cavanagh and Uncle Frankie at their *Yalke Bush Rub* stand. From early 2008, they have been concentrating on developing their *Arrernte* bush medicine product, *Yalke Bush Rub*:

A natural Arrernte bush medicine for healing aches and pains, colds and sniffles, soothing itchy skin, calming massage cream and gentle lift-me-up.

(Yalke Products pamphlet)


In 1997, Marilyn and John established an outstation at Pantharrpilenhe, 123km east northeast of Alice Springs on the Abalindum pastoral lease. The Cavanagh family, as Traditional Owners of this Eastern *Arrernte* country, were granted title to a 10km square excision. Marilyn and John

realised they needed to establish an economy in this remote location if they were to encourage people to move there from town. Being a traditional healer, John was particularly interested in developing a land-based livelihood. The Centre for Appropriate Technology (CAT) provided a lot of practical advice, helping establish sustainable infrastructure for water access and community energy needs. Other support was provided by Tangantjere nursery workers, and CDU researchers. From CDU, Jock Morse was working on an RIRDC project (the bush produce report), and he employed John for two years. Together they looked at the harvesting of bushfoods, predominantly *akatjura* (bush tomato), but also *alangu* (bush banana). Working with Centralian College, Marilyn and John also introduced conventional horticultural methods in trial plots. At this stage, they were interested in and were already experimenting with ideas based around the value-adding of products on-site – e.g., roasting wattleseed.

These years were the beginning years, establishing the groundwork for what has since become a bush produce enterprise based on medicinal plant knowledge. After years of hard work on the outstation, Marilyn and John felt emotionally and physically exhausted, and recognised their need for spiritual healing, initially deciding to focus on the healing properties of bush plants for this reason. Then, on returning to Alice Springs, Marilyn and John knew of a close family member, Uncle Frankie, who had health problems that were only being addressed through Western medicine. They realized that the treatment being offered was limited, and when doctors suggested Frankie be moved north to Darwin indefinitely, John decided to intervene, **asking “Let me firstly try our healing methods”**. Treating his kin with traditional oil from the bush was found to be an extremely effective and successful remedy.

At this time, looking for new economic opportunities, Marilyn started noticing the contents of creams/rubs with bees wax in shops and soon decided to experiment with bush medicine, bees wax, and olive oil. From her experimentation (a variation on the tradition of using animal fat as a binding agent) she began creating rubs and oils, and presenting them in bottles with hand-written labels. From these modest beginnings, *Yalke Bush Rub* products have expanded to include varieties for a number of different ailments, including aches and pains, skin irritations and colds and flu (ref. **Figure 43**, *Yalke Bush Rub* information pamphlet).

Figure 43: *Yalke Bush Rub* information pamphlet.



Yalke Products
Aboriginal owned by
Central and Eastern Arrente people

"Highly recommended for any sniffles or coughs"
Alex Sherrin


"The aches disappeared very quickly. Fantastic!"
Zita Youens

"I am very sensitive to insect bites—the ants at Olive Park think I'm their meal. The 'Arrethe' bush rub is a wonderful soother for itches"
Margaret Opie

"Thank you, the lift-me-up is great! The smell is divine, it just lifted me up straight away. Thank you."
Anna from Tasmania

Yalke Products
Honeymoon Gap via Alice Springs

Phone 0404 353 084
Email yalke@y7mail.com
PO Box 4824, Alice Springs, NT 0871



A natural Arrente bush medicine for healing aches and pains, colds and sniffles, soothing itchy skin, calming massage cream and gentle lift-me-up.

Yalke Products is the maker of the **Yalke Bush Rub**, an Arrente bush medicine product that consists of four different types of native medicinal plants from the Central and Eastern Arrente region. Each is blended with bees wax and olive oil to produce a natural chemical free healing blend.

Yalke Products offer spiritual healings, desert massage (or *chu chu*), cultural awareness and guided group 4x4 self drive tours.



Yalke Bush Rub

Aherre-intenhe

Eramophila duttonii, bees wax and olive oil

Use for aches and pains

Arrethe

Eramophila freelingii, bees wax and olive oil

Use for skin irritations

Apere

Eucalyptus, bees wax and olive oil

Use for colds and flu

Ladies blend

Pinta pinta, bees wax and olive oil



Yalke in the Arrente language is the name of an edible bulbous plant – bush onion or native onion grass.

KungkasCanCook



Visitors to the Red Centre who take the opportunity to taste local bush foods, might have tried *KungkasCanCook*. Catering for conferences, industry gatherings, schools, and regional shows, Rayleen Brown of *KungkasCanCook* (literally “women can cook”) is a dynamic, vibrant woman of passion – she is passionate about the place where she lives, the foods it produces, and most importantly the stories, culture, and people attached to the land. She is an Eastern *Arrernte* woman with a mission to not only help increase awareness of the unique flavours of the bush and encourage people to experience the true ‘outback’ taste, but also to help Aboriginal people living in the desert regions become increasingly involved in the bushfoods industry by spreading knowledge and information, especially to the young people, about what it is all about.



Rayleen Brown, *KungkasCanCook* stall at *Desert Knowledge Symposium and Business Showcase: Global Desert Opportunities*, 1-3 Nov.'06, Alice Springs.

Rayleen has been involved in the bush foods industry on a commercial basis since the year 2000. **She had heard that people, particularly bigger companies “down south”, were starting to put bushtucker in jars, and that these people had actually been involved with bush foods up to 10 years prior. Then, when people started approaching her and asking whether she had bushtucker sauces, she began to see the potential for bush foods as an industry for Indigenous people – “as something we could go into and make money out of”.**

Rayleen explains the beginnings of her passion:

It was because earlier on Gina (Rayleen’s friend and former business partner) and I went to a meeting, probably when we first started the business, and we thought we’d join the local food group, just to network and get out there. And we talked about working with bushfoods and the idea of opening a restaurant, and they (the other network members) just turned around to us and said “You’re silly”. You know this is probably eight years ago, they said “You’re stupid. You’ll never make any money out of it, you’re not going to do any good with it, you might as well not even worry about it”. That was a really negative response from the other local restaurateurs and food people in town, but we said no, we said “look, it’s our idea and we think it’s a great idea!” And only because Gina and myself have been eating bush tucker since we were kids, we thought how can somebody say that that’s not good, you know, that it’s not something good that people wouldn’t want to eat?!

Rayleen now caters in bush foods, making her own condiments from local fruits and seeds, and also serving grubs and honey ants – “Somebody asked us for a tastings platter and we said “Well, we’ll do a tastings platter. We’ll have honey ants and witchetty grubs on there.” And we did it, for 400 people.” She also regularly visits schools around Central Australia to inspire young people (especially women) to achieve their dreams, and hosts many students on work experience to give them a better idea of the possibilities of developing a local, culturally-based business.

5.4.2 Livelihood assets of the *Yalke Bush Rub* and *Kungka’s Can Cook* bush produce enterprises

SOCIO-CULTURAL CAPITAL

Cultural support

Yalke product cultural knowledge has been passed on from great grandfather – grandfather – father – John. John explained how men have specific knowledge, roles, and abilities, while women have others, and stressed the fact that these particular medicinal products cannot be made by all Aboriginal people, as each person will have their own way of producing and passing

on such healing knowledge and expertise to their own families – i.e., cultural knowledge is contained within the products that cannot be replicated.

Raw produce is wild harvested in local areas on *Arrernte* country (in and around Alice Springs). **Plants from other areas have also been used, but have been introduced as “limited editions”** when relatives have travelled to town and supplied plants from their respective traditional countries and Marilyn and John have made new products from them.

Rayleen also explained her interest in bush food from a young age:

I’ve had the background of growing up on bush tucker, so the learning in my early childhood has always sort of been a part of it, because we grew up on kangaroo, fish, witchetty grubs, and collecting and going out with my aunty and all that sort of stuff, so... that’s where my interest sort of came from I suppose.

She explained how she now links with local Aboriginal women to procure raw produce, and in this way is able to multiply the returns to local livelihoods:

*... because I have knowledge of local hunter and gatherers who live in town that still go out, I gave them opportunity to be able to sell their items – so they collected the honey ants and they collected all the witchetty grubs for me. They are a Warlpiri family who go out hunting quite a bit. They are wild harvesting on their own country – they know where to go to get the honey ant, where to go to get **the witchetty grub that’s on Warlpiri country.** So, in that way, we’re sort of helping out and supporting other bushtucker wild harvest mob.*

Speaking of the bush foods industry in general, Rayleen stressed the importance of networking – Aboriginal networking. In a way, she feels in her role as bush food caterer, she is currently letting people down as a result of “leaving the people in the bush behind”. This is as a result of feeling there is a lack of focus on Aboriginal involvement. Therefore, she advocates for more collaboration, cooperation, and sharing of knowledge, declaring: **“IK is the base of the entire industry, so Aboriginal people should always play a role!”**

Emotional support

For Marilyn and John, talking directly to people, to spread information and experiences, has been critical to the growth of their enterprise. Aboriginal relatives and friends have also helped spread knowledge and sales of the product nationally, throughout their Aboriginal networks.

Rayleen stressed the need for confidence in business development and relationships based on rapport and trust. Explaining how her confidence has gradually built over the eight years she

has been involved in her business, **she highlights access to information and building people's** knowledge as crucial to the empowerment of individuals. Describing the role of central Australian wild harvest wholesalers, Rayleen spoke of the long-term reliability factor increasing levels of trust and mutual respect, creating opportunities for Aboriginal women to gain confidence at point of sale, and increasingly network to seek better financial returns for their effort.

Professional support

Marilyn and John sought local and family support to help market their produce. Sourcing NT government grants for help with posters and package labels, a cousin painted the labels, a local photographer took the photos, and a local printer printed the final copies. They spoke of the substantial funds needed early on to establish a baseline for infrastructure and resources – including containers for presentation and sale of produce; a computer for helping design/print labels and information; and internet access for research and possible future marketing. Marilyn actively sought support – e.g., approaching Northern Territory Tourism for help, after being seen at the markets by NT Tourism employees, and NT Regional Development sponsored the production of information pamphlets in late 2008 for distribution at an international conference in Alice Springs (see **Figure 43**).

From these experiences, it is clear that funding specific to bush produce industry development, (such as that offered by ClIFF and IAF in terms of bush foods industry development), is crucial in helping people establish their businesses. Indigenous Business Australia (IBA) recently joined forces with the National Australia Bank (NAB) to form the Indigenous Entrepreneur Microenterprise Program (IEMP) aimed at helping out with initial up-front costs of enterprise development, as well as providing business advice and mentoring (see <http://www.iba.gov.au>). Such alliances offer hope for improved professional and financial support (see, for example, *Bushfood Sensations*, a network of bushfood businesses in NSW receiving both business and kitchen/cuisine mentoring, <http://bushfoodsensations.com>), and as Marilyn and John discovered, the link with tourism can also prove an important strategy for sustainable plant-based enterprise development [note similarities with the ARRI case studies (Desmond & Rowland, 2000)].

HUMAN CAPITAL (HEALTH AND WELL-BEING)

Janelle: *What benefits/enjoyment do you get from this enterprise?*

Marilyn: *Face-to-face contact with the people using the product; passion and motivation from helping people, as well as money in your pocket.*

John: *Collecting and making products from the bush; teaching people about the bush and how to collect produce, telling stories; creating a future for ourselves and that of our children: i.e., longer term, next generation opportunities. Hopes for a family business, our own nursery and funding for young people to increasingly become involved.*

Rayleen: *I suppose it's opening up the doors to visitors and people to central Australia to experience the tastes of our country, of our land here, because it's something unique and we just wanted to show it. To show other people the benefits of it... How many ways can it benefit people, you know, ...it can benefit them culturally, in their health as well, ... To me it's to share that knowledge and get people to experience tastes of the bushfoods. And that's what's been the motivating force. We were never thinking that it was going to be making us rich... well, it still isn't to this day!*

The (potential) health and well-being benefits are varied and wide-reaching. The focus is on sharing knowledge and information, with the aim to provide training, employment and/or income-generating opportunities for family and local Aboriginal people [again, this aligns with the findings from the ARRI case studies (Desmond & Rowland, 2000)]. Broader community interest and support are important, particularly as there is a current lack of financial return:

Rayleen: *I have 100% Indigenous employment here and I'd like to see that grow as my product development happens, my local products. Then I'd like to see a lot more training and employment opportunities for Indigenous kids. Whether that's subsidised by the government or, in some way or other, you know that might be a good thing for me to help me out, which I've never had in the past. I've never had any subsidies or any help. It's all been voluntary. Everything that I've done is voluntary with the kids you know.*

Rayleen emphasised the multiple roles of education in developing a bush foods industry based on respect for knowledge – education of young Aboriginal people by their Elders; education of chefs about their produce:

Well-being and education – Definitely! They all go in together. I'm never going to stop learning and every time I have a trip with those (wild-harvesting) ladies I learn more and I learn to appreciate, so education is definitely the way to go. For the industry, education is a big thing. If you're going to be a chef cooking on the west coast, east coast, or wherever you come from, you actually need to learn a little bit more about your product. And it's an important thing, it's really important. A lot of restaurants base their thing around the products they use – their local products or their fresh products from the ocean. They know where the oysters have come from, they know... The same

respect has to come back to when they're using or value-adding the bushfoods. They need to have good knowledge about that, and that's not being taught in schools at the moment – in any hospitality or chefs (school).

Rayleen's point is that a specific focus on bush foods during the training of chefs would ultimately help spread consumer knowledge and appreciation of the various tastes and flavours, increasing overall market awareness of bush produce value. Encouragingly, there is a growing number of people and organisations working to help breach this gap in knowledge (ref. *The Dilly Bag Pty. Ltd.* Bush Tucker products and learning programs by Dale Chapman, <http://www.thedillybag.com.au> ; "Walkabout Chef" Steve Sunk's approach to training young Aboriginal people, to help build the connection between local food knowledges and European-style cooking and appreciation of various tastes and flavours, Sunk & Hancock, 2006).

NATURAL AND PHYSICAL CAPITAL

John: *The plant is not broken; rather, it is pruned. Cuttings are taken and there is not a lot of plant used to prepare each batch of medicine. We do not return to the same spot either, but move between areas.*

The wild-harvesting of raw produce occurs locally and seasonally. Like the women wild-harvesting bushfoods, John and Marilyn report constraints to wild harvests include transportation issues – minimal access to vehicles. John has plans to establish a nursery, to help with environmental sustainability. He would also like the opportunity to teach people on-site – perhaps introduce tourism and cross-cultural learning.

Rayleen is also keen to help strengthen opportunities for cross-cultural learning. When I asked her what future she saw for her business, she answered:

I can see it in my head. I visualise it all the time. It's a small area which has some local products available, which also has an information booth and a DVD playing of the women harvesting and stories and talking about Country. A little cafe with wattleseed coffee brewing. Nice smoothies being made out of beautiful natural products, all the syrups and things you can think, and the smells coming out – I can see it and smell it! That's what I'd like to have, ...nothing big, just a little something that's special and that would be accessible to our local visitors.

She argues that tourists currently do not know where to go to have such an experience.

FINANCIAL CAPITAL

When John and Marilyn established their outstation residence, they had to rely on CDEP to get things up and running. **As an 'emerging' outstation community**, they found were not welcomed by any resource agency – instead they had to approach a (distant) neighbouring community to become eligible for CDEP. Art Australia funding for ceremony also came through and the outstation has been the site of three large ceremonies to date.

With their bush medicine business, money from markets/profits has been reinvested into the enterprise. They now need a more substantial funding injection to assist their progression beyond buying just enough jars to cover the next lot of sales. What is needed is a base injection of funds to cover this, so they can concentrate on the overall business development, (again, micro-loans come to mind). To help keep costs to a minimum, Marilyn explained how they source locally based raw produce:

The greatest expense to date is the olive oil, so we are sourcing locally made products (including bees wax) to help with costs and to support a locally-made product (e.g., by speaking with a local bee-keeper).

Rayleen also spoke of the lack of income associated with bushfoods:

Why do I keep doing it? - Somebody asked me that the other day when I went to a business forum where I spoke about bushfoods: "Why do you still (do it) ... it's not even 10% of your income..." (catering of non-bushfoods making up the other 90%) and I said because I have a belief that... even if I don't become the person that's going to be making the most money out of it, I think that Indigenous people can benefit from bushfoods being developed in the right way, and products and value-adding! So that's my main driver. Income isn't a significant factor – no, not at all. And if there weren't people who were drivers, who had a belief in this whole industry then where would we be today? We are moving. I can see the movement. But money? Definitely not, to me at the moment, you know... it could be one good year, the next year not. So, it fluctuates quite a bit. But it's not that I wouldn't like it (bushfoods) to become a significant factor, because I'd like to work, 50% of my time doing products and stuff, ...but it's quite a way away I think for me.

Like Marilyn and John, Rayleen described having to spend much time and money to keep her business going, including time spent going out and talking to people, giving people free tastings and generally promoting bushfoods. However, she feels the long-term benefits of such 'costs' will be/are being felt through the generation of more business as knowledge grows. Still, Rayleen is currently feeling frustrated and limited with her current mode of industry involvement. She explained:

I'd like to become more involved, but because of my finances I'm sort of stuck in a rut. I can't go forward with it and financially, to look into product development I'd spend a fair bit of money and finding the funds to do that and getting the funding people to believe me that it's a good business could be a bit of a hard thing too, because at the moment, you know I know that now, but in the past it's been something that people have said: "oh well, you know is it really...can it make you money? Can you pay the loan back?" You know, you're just doing that (justifying yourself).

This aligns with the ARRI research findings (Desmond & Rowland, 2000) which highlighted a lack of bridging funding and support leading to lost opportunities. Rayleen had previously approached IBA, but her experiences were often mixed (ref. *Influencing Structures and Processes* section below).

INSTITUTIONAL CAPITAL

Rayleen spoke of the importance of the wholesaler role to the wild-harvesting of bush resources in Central Australia. As a producer of value-added produce, she doesn't have the time or connections needed to travel out bush to collect produce. An increasing number of women are contacting her directly, and selling to her at her Alice Springs premises, when the women travel into town. However, most of Rayleen's wild-harvested produce has come through the wholesale connection, and she believes the role of wholesalers must be recognised and supported to allow for the continuing validation of wild harvest by Aboriginal women in Central Australia, and their continuing role in the growing commercial industry (see also Walsh *et al.*, 2006b):

I leave the direct links to the mob that are harvesting out bush, to our wholesalers that are already set up in central Australia – people like Peter Yates, Rod Horner, ... all those guys, as they've already set up a relationship between the wild harvesters... I don't have accessibility, vehicles or knowledge of when things are being harvested so I just don't have the time to do that. Those people (the wholesalers) have been there for quite some time, building up the relationships between the Indigenous harvesters in the bush and because I don't have the resources and the time, you've got to have that middleman, intermediaries.

5.4.3 Key contextual factors effecting John and Marilyn's, and Rayleen's involvement in commercial bush produce industries and benefits to their livelihoods and well-being

What follows is a summary of the key contextual factors found to be influencing the *Yalke Bush Rub* and *KungkasCanCook* enterprises:

INFLUENCING STRUCTURES AND PROCESSES

IP concerns

Marilyn, John, and Rayleen all spoke of a fear of traditional IP being taken away by larger industry players who are able to access plants and utilise their properties. Marilyn is aware of a lack of law to protect such use/abuse of raw produce – i.e., particularly the lack of protection from competition from larger scale, intensive production by non-Aboriginal producers that Cunningham *et al.* (2008) highlighted. At the same time, however, Marilyn is fearful of the government bringing in stricter permit laws for harvesters and producers like herself, including stricter laws in the Alice Springs marketplace where people may not be able to sell on the lawns anymore or laws regarding the personal indemnity of products and services – e.g., you may not be able to touch anyone anymore; therefore, how do you show people how to apply the bush rub? Another aspect of the legal side is the use of specific words/terms to describe the products, e.g., 'healing' and 'antiseptic', which need to abide by regulations contained in the *Therapeutic Goods Act 1989*.

Rayleen is also concerned about IP issues and spoke of the important research being carried out in this regard, by DK-CRC and other organisations; however, she still expressed concern about how the information gained through such research would be able to accommodate and incorporate the complexity of the traditional knowledge and rights systems extending over vast areas of land and resources:

I know they're working out the species and the varieties and all that stuff, but whether that knowledge will be used down the line in the future to benefit those people (harvesters), like how is it going to come back again to be of any benefit to the people who have actually got the original plant. How do they (researchers) trace that back? And if that's the seed that they're going to be using, if that main plant that grows so well, so easily, that's adaptable, that's... you know, identifying that plant, the original origin of that plant, and then saying that those mob, whoever it is: Laramba, Epenara, ... whoever it is, how can those people benefit financially or in any way? How do they work out the royalty amount?

Rayleen confessed little understanding of what actual measures are being investigated, and articulated a fear of her lack of understanding: **"I worry that we're not going to even have the benefits if we're not careful in what we're doing and be very guarded about the knowledge that they're gathering – DKA, AZRI, and all the scientific bodies. How do we protect that knowledge? How do we protect it for the Aboriginal people?"** As a member of the *Merne Altyerr-ipenhe* (Food from the Creation Time) Aboriginal reference group, Rayleen has been instrumental in developing a set of protocols (in progress) for the industry – "not looking at it from the whitefella side; (rather) the Indigenous side... with quotes taken from local language speakers, and how to apply it to industry". The focus is on recognition of the role of bush harvesters and the work that they do – **"to protect them from outside people coming in and taking their knowledge away"**. Rayleen stressed the need to link the protocols to national and international laws for the protection of plant **species and people's knowledge** (incl. the UN DRIP, 2007), and explained how being a part of that reference group is another way of her helping to develop the industry from the Indigenous perspective – **a role that she takes very seriously, as "that understanding, and that document being available to industry players is really, really important - hearing the words of the Aboriginal people and how they feel about it"**.

Although the reference group was set up to develop protocols and ensure returns, they are resource and funding poor. Rayleen feels frustrated at the lack of emphasis in this area, and feels that Aboriginal involvement is perhaps happening too slowly and therefore risks being left out of the picture. As a result, she says she often feels torn between her role as entrepreneur and enterprise business developer vs. her Aboriginality. Still, she believes the answer lies in education – education of industry: "...making people aware of those protocols. Protocols from DKA and the protocols from the wild harvest group". **However, the development of such protocols is one thing; adherence to them quite another:**

They (the potential IP stealers) probably look at the protocols on the DKA site, but then having accessibility to the industry, to the protocols that have been put together by Aboriginal people, and respecting that, you know...how do we get that out there? How do we get people to understand what bushtucker means to Aboriginal people?

Difficulty accessing funding and professional support

Janelle: *You mentioned that nobody wants to support Aboriginal industries at the moment?*

Rayleen: *Well, they do...you can get business grants...you can get Indigenous business grants, but it's quite a tedious and long, drawn-out process. A lot of Aboriginal people are put off by it. We need to streamline it, especially with the bushfoods industry. IBA need to streamline things a bit to make it a lot more accessible and a bit easier to apply*

for small pockets of funding, to get infrastructure put up in communities. It's not that the people (IBA) don't want to support, but there's really no knowledge out bush about where to go and what to do to get the help, or to get mentors, or to get any sort of business support. You've got to tap into the system, you've got to know. (Rayleen stressed how this goes for everyone, whether in a remote community or based in town.)

Rayleen has been working with IBA, providing them with feedback to help develop a more accessible and conducive cross-cultural learning environment. In this critique, she stressed the need for the recognition of local knowledges involved in bush industries, and support for the (business) structures that are already in place – rather than them being replaced by (foreign) external constructs. This requires people taking the time “to look and see what was already there” (Bond, 2009; p. 176).

Pricing differentials and lack of industry standards

Just for an idea, if I were to buy the quandong from the wholesaler in South Australia (Fish, Game & More), I'd be paying up to 80-something dollars a kilo. Where(as) I'm buying local and buying fresh, I only need to pay \$30 a kilo. Frozen and dried are really expensive. Where do they get their prices from down there? To me, I'd rather buy local if I can get it cheaper. I'm supporting local, I'd rather support local,... definitely!

Rayleen is bewildered by the wide range of prices (wholesale and retail) connected with bush foods products, and thinks this may be to do with supplying overseas markets where bushfoods are perhaps priced in a niche, special foods bracket. Rayleen spoke of people in Australia perhaps not appreciating the value of the bushfoods as much as what people in Asia or other countries overseas do, and as a result feeling that that may be the reason why she and other local producers have been a bit more reserved with their prices. At the same time, she also warned against undervaluing, and instead, privileging the taste of the raw product:

You don't want to undervalue as well, because there's got to be that mark-up, (based on) knowledge of the uniqueness of the product and that you're developing new recipes from scratch and using a lot of bushtucker. ...What I use of the bushtucker is a lot more than other people would use. I'm a bit plentiful with it, whereas sometimes I think other sauces seem to disguise the taste of the bushfoods. You know, you can't really taste it. I know, I eat the Akatjera raw and when I taste the sauces that are produced by other producers, like down south and stuff, to me I can't even taste the Akatjera. You know, it's like they're disguising the taste as if they're frightened of peoples' palettes. But, I think that people appreciate a different kind of a taste - to have Akatjera, you've got to have a bit of a bitter palette. How do you then put your produce on the market and be able to compare that, because people have already got this idea about what Akatjera tastes like.

There is no industry standard. That's something that I'd like to see happen, so there is some sort of a standards bureau, or a standards panel for tastings. The tastings panel could be made up of maybe some chefs, maybe some Indigenous people as well... maybe people in the catering industry, and local people, ... Also, acknowledgement of where the Akatjera comes from.

In 2010, RIRDC released a taste standard/flavour lexicon to be used in marketing (Smyth, 2010). This standard was developed **by a team of 'sensory experts'**, to provide consistency when describing the flavours of Australian native plant foods. Members from all levels of the native foods industry were reportedly involved and consulted, **including "members of the Queensland Indigenous community"**. As a result, the bush tomato (*Kutjera/Solanum centrale*) is described as having 'the savoury caramelised aroma of carob, with some cereal notes' and the quandong (*Santalum acuminatum*) an "aroma of dry lentils, with some earthy and fermented notes" (*ibid.*, Appendix 2). However, there are still no standards regarding the percentage of bush produce needed in products before the label 'bush food/native food' can be applied. In regards to place-based identification, geographic indicators could also help differentiate produce and tastes from varying regions – in accordance with the protocols being developed by the *Merne Altyerr-ipenhe* (Food from the Creation Time) Aboriginal reference group (Walsh in Janke, 2009, pp. 142-144).

VULNERABILITY CONTEXT

Market knowledge and development

Most people buying *Yalke* products to date have been in the older age bracket – over 60 years. Still, Marilyn and John have been experimenting with ways of expanding their market by **introducing "young blends" with natural perfumes and lip balms**, and they are also promoting the medicine as a sports rub. The Alice Springs market provides a good opportunity for them to see and hear reactions first-hand from a broad cross-section of the community. In addition, information about their products is growing through radio talkback programs. The personal stories attached to the knowledge and use of the products is helping spread the word. From word-of-mouth and **people's experiences** and affirmations, the products have quickly evolved, as have the labels and the words used to describe the plants and produce – e.g., as people talk about arthritis being eased, so that becomes part of the marketing (ref. **Figure 43**, *Yalke Bush Rub* information pamphlet). It is the general healing qualities of the plants that Marilyn and John stress, insisting that the product therefore sells itself and cannot go wrong. Sharing their understanding and experience of this healing quality has resulted in them sending produce as far afield as Perth, Groote Eylandt, Melbourne, and Queensland.

Rayleen: *I think there's a big break between me as a person working on the ground closer to the harvesters and then the ones at the other end (e.g., retail). There's a big break there and there's the cultural misunderstanding and there's just no appreciation, to me. I don't see that at the moment. I don't really...I can't see it, because out there it's just an economic thing, but I think the way that I'd like to see it going is in educating the chefs. You know, you can't cook with something and not understand what the product is. You could be cutting a fresh asparagus and oh, "this asparagus comes from Victoria...this cheese that we're putting on your plate..." You know, geographical (appellation) and an understanding of where the foods come from...and a lot of the chefs, even locally, don't understand that at all.*

Once again, Rayleen mentioned the need for marketing to respect the place and people producing bush products. Appropriate identification and appellation would help increase the visibility and appreciation of Aboriginal people's involvement in the value chain, and could provide greater incentive and motivation for Aboriginal people to become more involved in these industries.

Jealousies, prejudices, and lack of professional information sharing

Marilyn: *You have got to be tough to handle the criticisms and jealousies that arise from both within the Aboriginal and non-Aboriginal communities (i.e., tall-poppy-syndrome).*

Marilyn and John stressed the importance of ignoring the negativity and calling on spiritual guidance and protection from Country. They now work with Uncle Frankie and the three of them help protect each other, to shield against jealousies. They have often felt "why should we bother?" when things get difficult or frustrating; however, they feel the spiritual need to continue their efforts, to keep the knowledge of healing provided by previous generations strong in their communities.

Working in the industry as an Aboriginal person is hard. Being a black person means people still look at you in a way that they don't think that you can do it. Just two years ago (people said): "Oh, it's getting bigger than Ben Hur! You're not going to be able to handle it!" So, there's still that negative thing out there.

Speaking of her own journey of involvement, Rayleen described some of the difficulties and advantages she experienced while building her business, as a result of being both an Aboriginal person and a woman in small business enterprise:

Being a woman in the industry? Just look at the statistics - how many more women are starting businesses in Australia? Lots! The percentages are higher than men now. So, we're on a new level, and Aboriginal women are the stalwarts, the strong ones. The men have lost place, but the women have been very resilient and been able to adapt to whitefellas' ways, working in whitefellas' government and things.

When I asked whether Rayleen felt she needed more support, she spoke of the frustrations associated with a lack of professional guidance and mentoring, and the guarded nature of the industry players:

*How do I progress from where I am? I don't have the knowledge of product development. Where do I go to get a nutritional analysis? I need to get barcodes. There's a lot I need help with to get to that next step and I don't know who I get that from? Do I do it through my own source of my own mentors, but... where do you find these people with knowledge about bushfoods industry who will **mentor you**? There's not many around. People in the industry are a bit guarded, very guarded, so how do you share that knowledge over the borders or between different suppliers or retailers?*

To help facilitate knowledge sharing and identify enterprise development pathways, Rayleen suggested a bush produce forum be held where all stakeholders could have the necessary conversations face-to-face:

In such a forum, Indigenous people would be invited, the people who are out there doing it, invited along to be able to ask questions of people like Centrefarm or DKA and say: "What's your role? What can you do? The research that's being done, how is it going to benefit us?"

COMMUNITY STRENGTH

For broader Aboriginal community support and involvement, there is a need for greater **awareness of the various bush industries' value chains, prospects, and opportunities**. As Rayleen stressed, Aboriginal people need **to have a full understanding of what's happening**, thereby giving them more, encouraging them more, and giving them an incentive to keep going. Rayleen took part in DK-CRC research that involved her travelling the value-chain in order to come to a greater appreciation of how the industry works (Cleary, 2009b) and she now advocates such information-sharing experiences to allow Aboriginal people access to the full knowledge of the industry, thereby creating more appreciation and pride among the producers themselves and their broader community members regarding their contribution. As Rayleen has experienced firsthand, **"bushfood is** not only something Aboriginal people eat; (rather) this is something that the whole world wants to know about, and (it is important) being proud of that knowledge to share."

Rayleen emphasised the important role that schools and education can play in building recognition and respect, helping create interest among young Aboriginal people in these industries; at the same time, she also expressed dissatisfaction with what she sees as a current lack of support for Indigenous knowledge in NT schools, pointing to the elective nature of

Aboriginal studies that are sourced from textbooks, rather than utilising the local people and knowledge in classrooms. Rayleen frequently visits schools and hosts students for work experience in the belief that this is the only way to ensure inter-generational sustainability of knowledge and interest in bush produce industry involvement: “That’s where it starts – you’ve got to talk to the young people about things, to build an understanding.”

5.4.4 Case study summary and conclusions

KEY ASSETS AND STRATEGIES

Major benefits and risks/issues from involvement in the industry as seen in this case study include:

BENEFITS	RISKS / ISSUES
The pride and pleasure of working with native produce; the creative process; the act of healing and helping others; spiritual guidance and protection	Fear that big players may possibly come in and take over once the industry base has been established
Working with family, supporting and encouraging one-another	Jealousies, negativity, and criticisms from the broader Aboriginal and non-Aboriginal community
The contemporary use and application of Traditional Knowledge that has been passed down through the generations; teaching young people about their culture and showing them ways to keep such knowledge strong and relevant today	IP concerns – how to ensure benefits return to the original owners of TEK; lack of local cultural studies in schools that would help strengthen and validate the use of traditional knowledge in contemporary society
The social aspect of face-to-face contact with customers; the interaction with other people involved in bush produce industries, both Aboriginal and non-Aboriginal, for exchange of ideas and experiences, to voice concerns, and help grow the industry	Difficulties in accessing information when many players (in the food industry especially) are guarded of 'their' knowledge, leading to very disjointed industry development; lack of coordination and communication between all levels of the supply chain
“Money in your pocket” – even if minimal (mostly reinvested in further enterprise development)	Long turn-around times for loan applications to be approved (IBA); business requirement laws are often prohibitive – e.g., the need for expensive business plans (\$20,000)
Cross-cultural learning, teaching, and sharing opportunities, aiding broader intercultural relations; a growing awareness of and interest in native bush produce amongst the broader community and a move towards ethical consumerism	Government laws and regulations developed off-site may negatively effect production and marketing (e.g., permits for wild harvesting; personal indemnity regulations for medicinal products)

BENEFITS	RISKS / ISSUES
Training, employment, and livelihood support for local Aboriginal people	Lack of a streamlined approach to encouraging and supporting new people to become involved in the industry, as well as on-going mentoring for business development
The motivation and energy that comes from sharing knowledge; enhanced self-confidence	Waning emotional and professional support as a result of delayed applications, which in turn negatively affects motivation
Support for traditional land management and Care of Country – e.g., pruning and monitoring of specific plants	The generic branding of raw produce at the retail end does not distinguish where the produce originated from or who harvested it (i.e., Country and Place, which are at the base of people’s identity)
Links with and support of other local businesses (e.g., local bee keeper; local wholesalers)	Sporadic raw produce supply (bushfoods) due to climate/seasonal change; wholesale prices vary substantially and can increase significantly due to inconsistent supply; cash-flow problems for wholesalers/traders can develop due to delayed payments for produce at procurement and/or retail end of the supply chain – which also causes a lack of supply
Financial and mentoring support from NT Tourism: development of the bush produce - tourism link; information and research support from organisations such as Desert Knowledge CRC	Lack of long-term financial support for the Aboriginal bushfoods reference group of Central Australia

To help ameliorate the risks and increase the benefits, the main livelihood strategies employed by Marilyn, John, and Rayleen include:

- on-site value-adding
- local market concentration (for sales and supply of raw produce)
- diversification of products and outlets/markets
- the use of kinship networks for socio-cultural support
- facilitation of information to consumers regarding their produce - educating people and developing markets.

The following discussion is focussed on ways to increase the benefits and minimise the risks, by further analysing the impacts on each of the livelihood assets. It is based around key concerns and insights that arose during the interviews. Adding insight from the literature referred to in Chapter 4, to make involvement in the industry a sustainable livelihood strategy for Aboriginal

people living in this region of Australia's Arid Zone, the following considerations need to be made, and actions taken:

Producers

are most often women (particularly the bush harvesters); their health and well-being is related to the health of Country; provide the knowledge at the base of the entire bush produce industry, knowledge that needs to be respected and protected

The wild harvesting of bush produce in Central Australia provides broad-ranging livelihoods benefits, particularly to women and children. Local-level returns to health of Country and health of people are of primary concern, with monetary returns from sales also being used to better the health and education of kin (note similarities with South African women involved in *marula* commercialisation, Shackleton *et al.*, 2003). As Rayleen explained:

The women who are involved in the bushfoods industry are also involved in health, education, ... they are part of this whole stronghold, the rock in the community. The well-being. And they're the ones who still want to go on Country, they still like hunting and gathering, because they can see that as a strength – bringing their people together and keeping them strong: "Doesn't matter if we've got no money, we can still go hunting!"

For Rayleen, this understanding provides the driving force in her wanting to involve Aboriginal people in the commercialisation process, as she believes the wild harvesting women in particular "deserve something good out of this whole thing." They are the people in whose knowledge the industry is based:

...our mob, we've got such rich links that need to be acknowledged. And something has to come back to those people to help them keep going, because they're the ones who first gave that information out to whitefellas. They have to get some recognition for their knowledge and what they've done, and for sticking it out for so long. Those wild harvesters have been doing what they do for so long, and for supporting the industry, and going out and harvesting. Who would be anywhere now (if it weren't for them)...nobody! That's why you need to respect them! Nobody else would've run out and done all the back-breaking stuff, you know.

At the same time, Rayleen, Marilyn, and John all expressed concerns about IP:

Rayleen: *I worry about other big players coming in from the horticultural side. Once this has all been developed, maybe they're just waiting in the wings. They're like vultures on the side, hanging around, waiting for things to develop, then I'm worried that they're going to...you know, if we don't put those strategies in place where you can stop that from happening, (people) being able to grab those things and just go bang,... which has happened in the past. That's my main worry.*

I ask whether the development of protocols **won't help, but Rayleen pointed to the very real** question of how to ensure the rules are enforced and people abide by them? [particularly considering difficulties in enforcement have previously been identified in regards bush produce regulations (Cunningham *et al.*, 2008; see also Clay, 1997)]. Cunningham *et al.* (2008) suggested interim protection for incipient Aboriginal plant-based industries, proposing that FairTrade agreements and/or statutory protection from non-Aboriginal competitors could help ensure Aboriginal people an on-going role in the bush foods industry, based on social justice ideals. [In Canada, provincial Acts and licensing measures have proved helpful to Aboriginal wild rice harvesters, and include special provisions for hand-picking prior to mechanical harvesting (NAFA, 2002)]. Cunningham *et al.* (2008) also suggested, 'People's Biodiversity Registers' (Gupta, 2000) could be adapted to Australian conditions, as "the recording process raises local awareness about access and **benefit sharing in a realistic way**" (p. 437). This would help overcome feelings of anxiety based on lack of knowledge regarding IP rights and their protection.

Anxiety and fears would also be allayed with enhancement of communication and networking possibilities across and between people and businesses involved at varying levels of the bush produce supply chain. As Morse (2005) and Bryceson (2008) reported, lack of trust and information sharing between bush produce industry players generally has meant many Aboriginal people involved at the producer end of the supply chain are not fully aware of their role in the broader industry development and potential future employment opportunities. Research carried out by the Desert Knowledge CRC and more recently by the Remote Economies CRC is helping overcome this gap in knowledge, but more needs to be done to connect people and facilitate knowledge sharing (Cleary, 2009a; Cleary, 2009b; Cleary *et al.*, 2009).

External Partnerships

DK-CRC; NT Tourism;
NT Regional Devt.; IBA

**need to be adapted to local circumstances
and based on long-term information
exchange**

There is a need for **the development of a more "Aboriginal user-friendly" model of engagement** and support in government agencies (e.g., IBA), based on a more hands-on, practically-based approach which involves one-on-one mentorship to provide on-going, long-term support and advice to entrepreneurs. Support structures need to be streamlined to make it easier for people to know exactly where they can go to get the type of support they are seeking and whom to approach. Initial face-to-face meetings with people or an information-sharing forum are needed

to expand communication channels, providing information on what business and industry support exists, who offers what service, and how to approach/contact such organizations. Interpreters should also be employed during such meetings where necessary and/or desired, to help facilitate maximum involvement. In 2008, Cunningham *et al.* likewise pointed to the need to build producer capacity through training programs focused on mentoring, monitoring, and evaluation and better partnerships between industry research and such training programs. They cited the *Stepping Stones for Tourism* program developed by *Stepwise Heritage and Tourism* (<http://www.stepwise.net.au/index.php>) as a current example of a long-term mentoring approach, and stressed the need to build producer capacity through creating cooperative institutions and fostering market access.

Producer Communities

require financial and technical support; may be of varying types, with varying goals

The development of producer associations allowing for industry involvement in a locally-defined fashion resonates with Rayleen's imagined scenario of a future bush foods industry maximizing Aboriginal involvement and benefits:

My visualisation of the future of bushfoods is that there are small cottage industries or businesses that are linked, that are happening in each community that wants to become involved, with support from Centrefarm and TAFE or CDU with horticulture training for both women and men; (meanwhile) wild-harvest is still happening and there being a place for wild harvest and cultural stuff, whether there be a link through tourism as well. Travelling out to communities and seeing drying sheds and facilities for Indigenous people that are in the business – a small infrastructure there to support the wild harvesters. People actually having pride and being proud of being able to have a business and being able to share it, and being able to have an income out of it – whether it be supplemented or seasonal, but at least have pride in their achievements. And, maybe if there is horticulture, I'd like to see it happening in the communities, and maybe a big plot ...

For such a multi-faceted, flexible approach to industry involvement and development, there is a need for increased financial assistance for product development and small-scale infrastructure development [e.g., through organisations such as CIFF and IAF, as well as the Indigenous Entrepreneur Microenterprise Program (IEMP), <http://www.iba.gov.au>]. There is also a need for increased access to and understanding of technology to engage with the economy from remote locations, including improved internet and phone access. With most computer access and knowledge located in educational institutes, fostering harvester and industry links with schools and/or TAFE colleges makes sense, and would provide young people a meaningful role in bush industries that could lead to future employment opportunities.

Broader Market

includes strong interest from (regional) tourists, so tourism-food link is important; needs education to increase socio-cultural appreciation, so the role of chefs/retail merchants is important in this respect

Rayleen also emphasised the link with Indigenous tourism, speaking of the interest amongst tourists to Central Australia in meeting locals and tasting local foods. Aboriginal community-based tourism enterprises are increasing (e.g. joint ventures like *Gunya Tourism* and the Titjikala Aboriginal Community, 120kms south-east of Alice Springs) and Rayleen believes this offers opportunities to share ideas and work together to help progress this tourism-food link. Meanwhile, there is also need for enhanced education of chefs and those involved at the retail end of the value chain to encourage increased appreciation of the socio-cultural history of this food and where it comes from – thereby enhancing ethical and knowledgeable consumerism, whether by tourists or interested locals.

5.4.5 'Value, Contribution, and Shortcomings' - Adaptation of the SL Framework to individual enterprises based in the Alice Springs region

The following point made on the development process of a Sustainable Livelihoods Framework suitable for use with Aboriginal people living in the arid region of Australia is based on the interviews conducted with John, Marilyn, and Rayleen, as well as the review of the draft SL framework (**Figure 7**, Chapter 2):

Speaking with individuals and families does **not allow for great insight into 'community strength'** as such. Personal experiences and opinions definitely provide some idea of the broader **community construct; however, 'community strength' as a contextual factor influencing bush produce involvement and success would need to be the focus of further research at the community/ township level.**

Chapter 6: DISCUSSION OF CASE STUDIES

As can be seen from the case studies, the benefits, risks, and contextual factors influencing bush produce industry development in the Arid Zone are many and varied – ranging from macro-level policies and legislation, to the health and well-being of individuals, families, and communities; from environmental and climatic concerns, to the practicalities of transportation. The simplified flow charts reviewed in Chapter 3 do little justice to capturing the inherent complexities of such livelihood systems.

What follows is an analysis of data from the four case study regions, drawing on information recorded in the matrix of contextual factors, as well as that contained in the more detailed discussions held with key informants throughout the research. Key assets and contextual factors are identified that correlate with sustainable beneficial livelihood outcomes for Aboriginal people living in the Arid Zone. The nature of these benefits is then examined, alongside an analysis of factors seen to be hampering development of the industry. Discrepancies are highlighted and suggestions made to overcome these, with the final section aimed at better aligning macro-level goals with micro-level livelihood strategies and objectives.

6.1 Cross-case analysis of key benefits, risks, and contextual factors influencing bush produce industry involvement in Arid Zone Australia

In this section, Scoones' (1998) SL framework is used to draw attention to the range of formal and informal institutional processes that are key to the identification of barriers and/or opportunities to sustainable livelihoods.¹ Scoones' emphasis on context, trends, and trade-offs offers a dynamic and flexible approach to livelihood analysis – one that has since been emphasized by researchers aiming at linking micro and macro levels of analysis in an attempt to better inform policy making and delivery (see Shankland, 2000).²

The following discussion and SL framework allow for a comprehensive understanding of the links and interplay between the micro and macro levels of sustainable livelihoods in regards to bush produce industry involvement in arid zone Australia. This approach is key to identifying the

¹ Scoones defines institutions as „established sets of rules, norms and patterns of behaviour’ (Scoones, 1998; p. 12).

² The definition of ‚policy’ as used in this research project is a broad one. Like Shankland (2000), the term is understood to refer to both the determination of a course of public (i.e., government) action, as well as to the process of putting it into place (p. 6). These understandings are also referred to as the policy content and the policy process.

policy implications and recommendations needed to help improve access to the required resources and assets, and to foster empowerment at the micro level.

6.1.1 Trade-offs, combinations, and sequences of livelihood assets occurring for Sustainable Livelihood outcomes

As discussed in the literature review, the current push for Australian bush produce commercialisation is multi-dimensional. Similar to research findings at the international level (Belcher & Schreckenberg, 2003), Australian bush produce industry development objectives were found to include natural resource conservation and ecological sustainability goals (RIRDC 2001, 2008), and national-level socio-economic development agendas (Desmond & Rowland, 2000; RIRDC, 2008). In addition, research highlighting health benefits associated with bush foods consumption has focused on identifying comparative advantage in the food market place (Konczak *et. al*, 2009).

However, as the PhD case study research has demonstrated, the health and livelihood benefits **associated with increased bush produce consumption and the related 'caring for country' activities associated with Aboriginal people's involvement in bush produce industries** are of primary concern to Aboriginal people, providing both physical and socio-cultural health and well-being returns that are considerably greater than generally acknowledged by the emerging industry. While an increasing number of studies are helping to highlight benefits to Aboriginal **people's social and emotional well-being** and cultural strength from their involvement in caring for country activities (Gorman, Griffiths & Whitehead, 2006; Burgess *et. al*, 2005, 2009; Garnett & Sithole, 2007; May, 2011), such research underpins the need for the various bush produce industries to adopt a broader livelihood-based focus – to consider NTFPs in terms of economic systems, rather than primary income sources (Belcher *et al.*, 2005; Gray, Altman & Halasz, 2005; Miers 2004). The challenge is to find a balance between growth for economic/monetary returns, growth for biodiversity conservation, and growth for nutrition, health, employment, and other socio-cultural needs (i.e., a broader network of livelihood outcomes) (Douglas *et al.*, 2006; see **also 'Total Economic Value' in Gray, Altman & Halasz, 2005**) – a balance that recognises and respects cultural diversity, adheres to principles of social justice, and ultimately promotes the ethics of self-determination (as per UN DRIP 2007, Art.3).

There is evidence of beneficial health and well-being returns across all case studies, including positive effects on pride, determination, self esteem and self-worth; social cohesion, involving enhanced respect, support and acknowledgement from the local Aboriginal community, and

facilitating inter-cultural understanding and recognition with the broader non-Aboriginal community; as well as (anecdotal) nutritional benefits. These findings correspond with those of the ARRI study (Desmond & Rowland, 2000), the *Kuka Kanyini* Health and Wellbeing Survey Report (2005), as well as numerous international studies and reports (Dionne, 2004b; Welford, 2005). This points at the need for a more holistic, contextual, and long-term assessment framework to evaluate and track the impacts of projects or assistance on community well-being, as previously highlighted in a 2007 RIRDC report by Alexandra and Stanley, and must, in turn, be linked to broader recognition of the Indigenous Knowledge at the base of the bush produce industries (Altman & Whitehead, 2003).

However, these effects are currently limited by a range of local contextual factors. In regards bush foods gardens, the development of cultivars occurs off-site so the germplasm and **knowledge is not left with the community “to empower them to determine their own commercial opportunities and glean appropriate benefits” (as recommended by Wynberg *et al.*, 2002)**. In addition, the majority of raw produce is transported to be value-added and sold **off-site, so the local market isn’t fully benefiting from the potential nutritional effects** - despite packets of bush tomatoes sold in community stores in the APY Lands having proved popular. The low number of people involved in garden maintenance has also caused stress for the few individuals involved and their motivation fluctuates as a result (note similarities with Botha *et al.* 2005; 2006). Reasons given for the lack of involvement ranged from people leaving the community long-term, to people showing variable interest – often corresponding to net returns from the garden: i.e., (understandably) most interest and involvement occurs at harvest time, when people pick foods both to eat and receive payment. This is not unlike bush harvests for food, medicinal plants, and raw materials for art/craft, which only take place when the desired resource is in season and are therefore always well attended. People enjoy the entire process involved, including: preparing **to leave (referred to as “hithering and thithering” by Musharbash, 2008; pp. 127-132)**; discussing and deciding where to travel; driving around and through Country, checking the health of the land in passing; socializing, relaxing, having a laugh; showing and teaching grandchildren, passing on knowledge; reveling in **their “nourishing terrains” (Rose, 1996)**.

In contrast to the bush harvests, bush gardens have had a more limited effect on socio-cultural health, with people often either enjoying the peace accorded due to a lack of participants, or avoiding gardens that may be physically distant from the community and lacking infrastructure more conducive to social engagement (e.g., seats and shaded rest areas; phone access in case of emergency). Garden harvests are also usually more frequent and intense, being controlled by

propagation techniques, and may occur at inopportune times, including periods when community members may not be on-site (e.g., during holidays). The mobility, immediacy, and intimacy of Aboriginal life (as described by Musharbash, 2008) corresponds with the natural system of plant growth and decline, and a definition of Aboriginal health based on relationships of **“mutual care”** incorporating health of Country, as described by Burgess *et al.* (2005). This respect for Country was particularly mentioned by the bush medicine entrepreneurs who detailed their observance of ethical conduct in accordance with the appropriate Law or Dreaming, and emphasized the importance of traditional healing and spiritual aspects of health and well-being. The cultural integrity and spirituality afforded by bush harvesting activities was mentioned as being conducive to appropriate economic activities, particularly for women - empowering them to strengthen language and culture through promoting intergenerational transfer of Traditional Ecological Knowledge (TEK). Again, these findings align with several international studies highlighting the cultural dimensions of NTFPs (den Adel, 2002; Shackleton *et al.*, 2003; Dionne, 2004a, b; Natural Justice, n.d.).

People have gained education and nationally recognized training certification from their involvement in horticultural activities. On-going training and support has been important for sustaining interest and motivation, providing a purpose. Entrepreneurial and business skills promoting local ownership are of particular value to those individuals interested in on-site value-adding, fostering the creative element of enterprise development. However, that said, the number of people currently training in horticulture is few and some are not yet working in the bush produce field. There has been surprisingly little engagement with local schools for training – although the Laramba community school in the Anmatyerr case study ran horticultural courses through TAFE with their Senior **Women’s class**. **Similarly, there has been little** involvement of community Elders in the horticultural training process. Perhaps a more encompassing approach aimed at integrating and sharing the knowledge and experience of the bush plants across generations and cultures would be more conducive to sustainable educational outcomes, as suggested by participants of the Ti Tree workshop (*cf.* the flexible and locally-developed initiatives to linking Vocational Education and Training (VET) participation and remote employment opportunities as described in Young *et al.*, 2007).

For most of the Aboriginal people involved in bush produce industries across the different case studies, employment and income has been seasonal. Rather than being the primary income source, such activities often combine with a range of other income-generating activities. This aligns with international research findings considering NTFPs more in terms of ‘economic systems’ that are used in various ways to help spread economic risk (Belcher *et al.*, 2005). In

Aboriginal Australia, this **corresponds to the 'hybrid economy' model as described by Altman** (2001) wherein state, market, and customary sectors interlink. Financial remuneration has been bolstered by the availability of CDEP during both training and garden maintenance periods, playing an important role in providing a steady, reliable income base which has often been supplemented during harvest periods with payment for picked produce (*cf.* Miers 2004). Hourly returns of approximately \$17 from CDEP + \$20/hour for produce picked from horticultural plots means up to \$37/hour can be earned during harvest periods. This is in stark contrast to the wild harvest return found to approximate \$1.20/hour.

Recent changes to CDEP programs in remote Australia have resulted in two streams delivering Work Readiness services, and Community Development projects/services (Australian Government, 2008). The Community Development strand and its related capacity and support structures could help provide initial financial support for emerging bush produce industries, considering the stated aim that such projects may include "activities that provide important community functions but are not commercially viable – or activities that may eventually lead to **a business, but which generate only marginal income in the start up phase**" (*ibid.*, p. 19). However, when speaking in terms of satisfaction with current financial returns, most people felt they were not adequately compensated for their effort, especially considering the long hours spent doing physically-demanding work in often less-than-conducive conditions (involving heat, dust, and prickles), and delays in payment along the value chain were also mentioned. CDEP payments were deemed unsatisfactory in the long term, all things considered.

However, it would appear that, particularly in relation to bush harvesting trips and the value-adding of produce, the cultural relevance of the work provides the primary motivation and **satisfaction. This corresponds with Morse's** (2005) findings cautioning against an entirely market-driven approach to the development of bush produce industries. Still, as Shackleton *et al.* (2003) found, cash value for produce can act as a strong incentive to retaining traditional knowledge and skills, particularly where there has been waning interest amongst younger generations. The interest and enthusiasm shown in making bush produce jewellery by the **Senior Women's class in Laramba** community school was rewarded through sales at a business showcase. Students receiving financial reward for their effort were not only pleased, but also motivated to continue making jewellery to participate in selling at a future market stall.

6.1.2 Institutional influences on access to livelihood assets

INTERNATIONAL AND MACRO LEVEL INFLUENCES

There has been an increasing international awareness of the importance of TEK/IK to preserving the cultural practices of indigenous communities as well as the biological diversity of the ecosystems in which they live [ref. Article 8(j) of the CBD (1992), for example]. However, the focus of ABS negotiations through the lens of economic development, involving IPRs and patents, offers TEK/IK limited protection. In contrast, there is a range of tools and alternative approaches that better respect the mutually interdependent integrity of TEK/IK, indigenous communities, and biological diversity. Amongst the strongest of such tools are human rights – including: the Universal Declaration of Human Rights (UDHR) (1948), the International Covenant on Economic, Social and Culture Rights (UN ICESCR) (1976), and the UN DRIP (2007). Additionally, the Intangible Cultural Heritage Convention (UNESCO, 2003) recognizes the importance of intangible cultural heritage - including, for instance, oral histories, songs, ceremonies and rituals - which has been largely overlooked by other laws and policies (Janke, 2009). Although Australia is not a signatory to this convention, it does provide useful guidelines based on best practices on the safeguarding and revitalization of such heritage (see UNESCO, 2003).

Still, as Natural Justice (n.d.) stressed, **“it is important to note that none of the articulations of rights within this liberal human rights spectrum directly address the unique dialectical nature of Indigenous and Local Communities’ (ILCs) relationships with their TK and the ecosystems from which it was developed”** (ref. website). The spiritual and ethical principles guiding TEK/IK use, as well as responsibilities and obligations to the communities and ecosystems in which it is used are not addressed. **The importance of indigenous peoples’ rights to self-determination** and to the respect of their customary legal systems then becomes apparent as an effective TEK/IK protection regime. In Australia, constitutional change is required before BCPs can be truly effective [see Natural Justice (n.d.) and Abrell (2009) for more information regarding the development of a biocultural human rights framework.]

Research participants from all case study sites reported a lack of macro-level support, particularly in terms of funding and policies. Funding has often been short-term, outcomes-based, with a lack of focus on the process; education and training courses suffer from lack of funding and infrastructure which would enable sustainable remote-area course delivery. State and federal business development information and support has been slow to respond to needs,

and to date, there has been a lack of industry standards supporting a fair effort/financial return ratio; with registry requirements sometimes inhibiting benefit flows (Whitehead *et al.*, 2006). Botha *et al.* (2006) reported similar findings, identifying unfavourable government policies that made progress difficult, setting inadequate timeframes and combining with poor service delivery to hamper the development of community-based plant nurseries in South Africa. In comparison, the long-term commitment of state government support alongside the respect given by trusted project staff to *Anangu* knowledge has been important to the success of the *Kuka Kanyini* project (First Annual Report, 2005). A recent scoping study supported by the federal government on Indigenous Fair Trade in Australia (Spencer & Hardie, 2011) offers hope that future bush industry development may include conformity assessment programs that create conditions conducive to sustainable livelihood enhancement, including socio-cultural strength.

Walter *et al.* (2003) reported Fair Trade certification can also help promote functioning monitoring systems that may lead to improved tenure rights and local empowerment. Resource rights and land tenure insecurity and restrictions currently inhibit enterprise involvement in the Arid Zone, including legislative emphasis on usufructuary rights over wild harvested bush resources. As Miers identified in 2004, there is a need to diversify land use to increase land-based economic opportunities, as well as need for more inclusive legislation that recognizes the commercial use/market exchange of such bush resources in the wider community, whilst protecting the TEK/IK at its base (*cf.* NAFA, 2002).

Still, as Sutton (2009) wrote, there are limitations to the changes that international covenants and national policies may effect. From his many years of living and working closely with Australian Aboriginal peoples, Sutton advocated more focus be placed on personal relationships in regards the creation of conditions “where Indigenous people have enough incentive and motivation, and enough capacity to change, to make important improvements in their own lives” (p. 12).

MESO AND MICRO LEVEL INFLUENCES

Inadequate knowledge of potential markets, lack of voice and access to information were common problems across most sites; tempered somewhat by involvement with meso-level organisations like *Outback Pride*, which aimed at increasing information transfer through certified training, regular on-site visits involving person-to-person advice and encouragement, and industry updates through community newsletters. On-site management and face-to-face contact helped with motivation in the gardens, with the continuity of all support staff involved

proving key to sustained interest. Again, these findings reflect those of Botha *et al.* (2006), and support the important contribution of the many intermediaries typically involved in production-to-consumption systems who can provide knowledge, contacts and/or information, as well as help manage the risk associated with enterprise development (Belcher & Schreckenberg, 2003).

Lack of information regarding IP and knowledge protection in particular were a source of considerable concern. Like Spencer and Hardie (2011) found, participants in the PhD research were concerned about the potential rapid growth of bush industries that could over-run Aboriginal (community-based) enterprises. In Central Australia, the *Merne Altyerr-ipenhe* (Food from the Creation Time) group provides support and information to bush harvesters, and has been developing cultural protocols for researchers and other stakeholders in the commercial bushfood industry. These guidelines are approaching the BCPs recommended by the Natural Justice Group (n.d.) and call for the greater recognition and respect of Aboriginal intellectual property (Douglas & Walsh, 2008). To this end, the federal and NT governments commissioned a report on the current status of Indigenous IP (Janke, 2009), which recommended effective policy management systems and the establishment of a National Indigenous Cultural Authority to facilitate rights management between users and IK/TEK holders.

The effects of institutionalised racism and marginalisation still hinder involvement. Aboriginal **people's input** into bush produce industry development is currently limited due to the scientific and legalistic **focus of 'standard' (i.e., non-Aboriginal)** enterprise development. This culturally specific approach has resulted in excessive concern with horticulture and scientific research, to the detriment of full engagement with the potential industry role of Aboriginal people, especially bush harvesting women in Central Australia. To help overcome this, to embrace the broader livelihood-based concerns of enterprise development and to more fully engage and collaborate with those whose knowledge and expertise lies at the base of it all, we need to critically assess/interrogate the cultural foundations at the basis of the current approach (Sivak, 2006). Several research projects in northern Australia which are focused on the socioeconomics of resource use and management are doing just this (see, for example, Buchanan, Altman, Arthur, Oades & the Bardi Jawi Rangers, 2009; May, 2011) and offer important insights and learnings for the broader bush produce industry development.

6.1.3 Overall contextual analysis of case study livelihoods, strategies employed, and any trends occurring

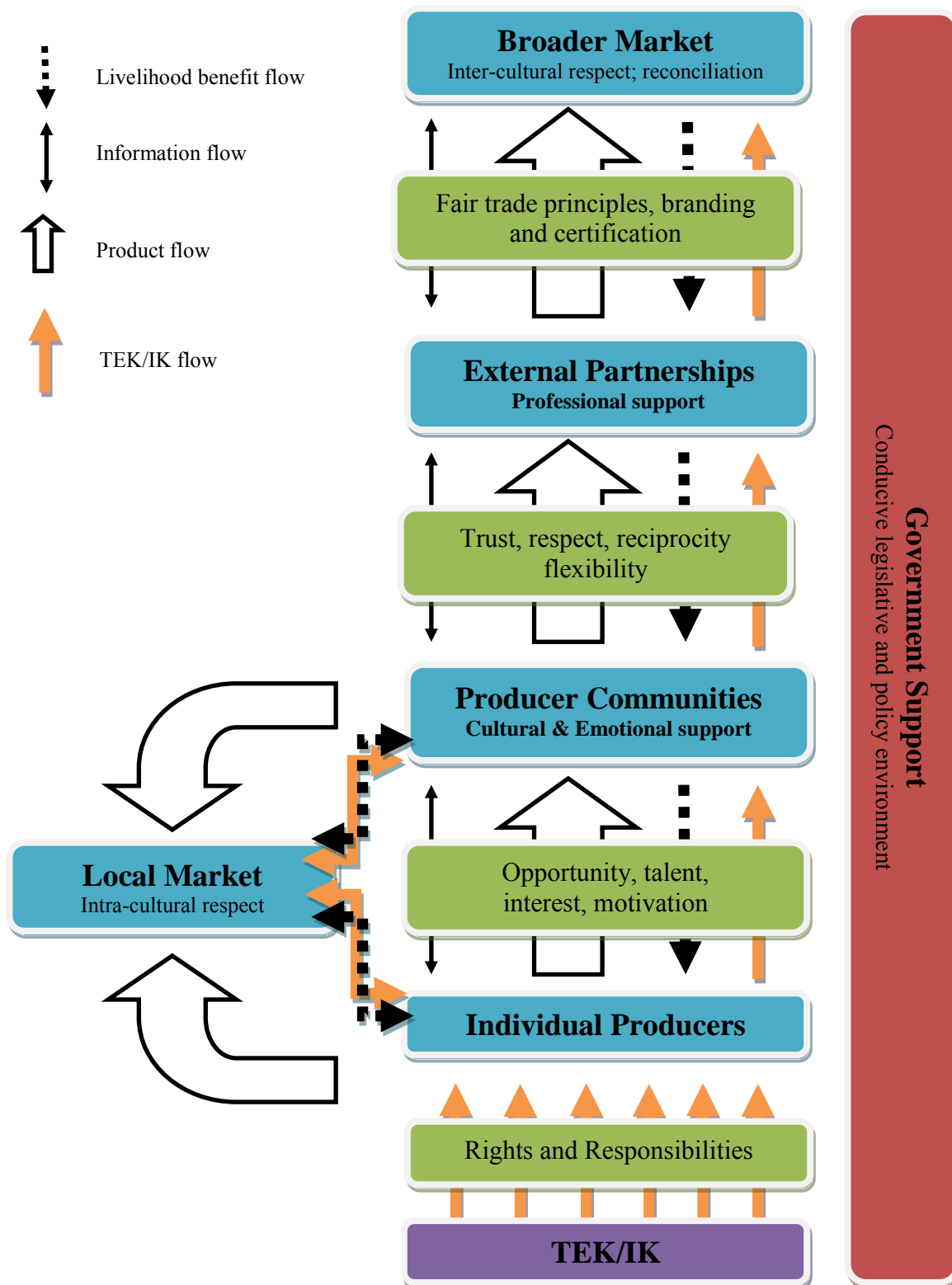
Table 4 provides a brief overview of some of the main benefits and risks associated with Arid Zone bush produce commercialization, as identified during the course of the research. As the above discussion shows, however, the effects of involvement in bush produce industries are complex and multi-faceted, differing across space and time. The following table must be viewed accordingly, as it tends to elide more than it reveals.

Table 4: An overview of the main benefits and risks associated with NTFP commercialisation, arising from the research. [Note the similarities with Table 3 (Chapter 4) summarising the benefits and risks identified in the literature.]

BENEFITS	RISKS
Training and education	Inappropriate and/or under-funded education and training packages
Food and produce to local community	Local market by-passed
Improved health and well-being, including positive effects on self-esteem and self-worth; creativity and enjoyment	Great stress placed on the few individuals involved; motivation fluctuates according to participation rates; lack of ownership
Employment and (seasonal) income for the family	Minimal financial return for effort; seasonal needs for extra (horticultural) workers are not always filled, resulting in inefficient harvests struggling to make a profit
Valuing of Traditional Knowledge in a contemporary context	Inadequate consumer knowledge of products and ignorance of their socio-cultural value; possible loss of IP
Incentive for passing TK on to the younger generation	Internal jealousies; lack of 'community' coherence; lack of interest; aging skills base
Care of Country – TEK use in land and resource management	Lack of rain/ sporadic raw produce growth and supply
Inter-cultural respect and recognition	Racism and marginalisation
Access to markets	Under-developed markets; lack of knowledge of (potential) markets

The following discussion is focussed on ways to increase the benefits and minimise the risks and is based around key elements effecting local livelihood returns as identified in the PhD research (see **Figure 44**). This discussion builds on the literature reviewed in Chapters 3 and 4, offering further insight into ways in which Aboriginal people's livelihoods and well-being may be positively affected by the development of Arid Zone bush produce industries.

Figure 44: Key elements effecting beneficial local livelihood returns from bush produce industry involvement, as identified through the case study research process. (Note similarities with/differences to Figure 30 in Chapter 4, which provided an overview of key elements identified in the literature. These are discussed in the following text.)



As the above diagram shows, the Australian bush produce industry is based on produce and practices that are embedded in Indigenous cultures. Traditional Ecological Knowledge and Indigenous Knowledge refined and shared over many generations now form the foundations of products and services being developed for a commercial market. These products are still intimately connected to the people and land from whence they came. The development of bush produce enterprises therefore has the potential to be informed by environmental knowledge and principles based on long-term sustainability of ecosystems, while at the same time rehabilitating and strengthening local Indigenous cultures.

In the Arid Zone, culturally-embedded guidelines have ensured ecological and cultural sustainability of managed wild harvests of bush produce over generations, with traditional **harvesting of foods and resources "inseparable from the religious customs and taboos of local people"** (Brown & Haworth, 1997). These practices were aimed at the perpetuation of species in balance with the human population of a region (Charlesworth, Kimber & Wallace, 1990), and a combination of law and lore kept the land and its people healthy (Sackett, 1980). Rose (1995) described the relationship between Aboriginal people living in Central Australia, their Country, and their Law thus:

Aboriginal people across Central Australia see the Law and ceremony as the main part of looking after their country. Older people are the ones who hold the knowledge about the law in the ceremonies, songs and dances and stories needed to keep the land healthy. It is through the Law that people are said to 'hold country'. The land is held in the sense that it is being used and looked after as it should be, in accordance with the Law and within the ongoing matrix of people and land as defined by the Law ... Because of the importance of the Law for looking after their country, passing knowledge to successive generations is viewed as an important land management activity (p. 14).

From the above quote, supported by evidence from the PhD research, it is clear that customary Law has been and continues to be central to the management of desert lands and resources, and that Aboriginal people's **social organisation** and cultural practices are at the base of their continued use and enjoyment. For this reason, the support of cultural practices and activities that enhance language and inter-generational knowledge transfer should form an integral part of bush produce industry development, to allow Aboriginal people more say in and control over their involvement (or non-involvement) and the returns they desire; to benefit bio-cultural diversity in the Arid Zone:

I don't know. It's just... it's ours, you know? That's the food we eat, that's how we grew up, you know. Our family taught us that. And whenever we come together and we go out as a family, we eat what we can. We don't bring it back home... That's what we got

taught. I don't agree with it (the bushfoods industry). It's just like our... That's going to be taken away from us, you know?! We grew up with that when we were little kids... We now need to pass it down to the younger generation. Like, we don't put it in books ... (bushfood) is getting exploited all over the world. Like, they could come to us, they can taste it, we'll go and show them, but to be in jars, in bottles, you know, it's different.
(Interview with Ruby Saunders; Ceduna, Oct. 2007)

So, how may cultural integrity be assured? The multi-faceted values inherent in bush produce (Walsh *et al.*, 2006a), group ownership of customary knowledge, and the existence of locally defined protocols in rights to land and ceremony all point to the need for researchers and would-be bush produce developers to respect and understand the complex social and cultural affiliations, rights and responsibilities associated with many plants – including Indigenous Cultural and Intellectual Property (ICIP) (Holcombe, 2009). Cunningham *et al.* (2008) stressed the importance of putting interim protection measures in place to ensure Aboriginal people a continued role in bush produce industries, suggesting FairTrade agreements or interim statutory protection could help protect Aboriginal enterprises from larger scale, intensive production by non-Aboriginal producers (p. 437). However, the complexity of socio-cultural affiliations mean any protection and/or benefit-sharing arrangements need to be flexible enough to take into consideration local priorities and concerns, with local institutions and ways of doing key to maximising beneficial livelihood returns (Botha *et al.*, 2005; Neumann and Hirsch, 2000).

Controversy can exist, for instance, within and between indigenous groups in regards to the commercial farming of wild resources, and measures put in place to help improve resource supply and quality (e.g., horticulture) may be considered to anathematize cultural integrity (Schreiber, 2002). This was apparent in the present PhD research, when Brenda Stubbs mentioned such a fear when comparing the wild harvesting of bush medicines to the community garden plot in Amata (ref. case study 5.3). The UN DRIP (2007, Article 5) describes **Indigenous peoples' right to** maintain and strengthen their distinct political, legal, economic, social, and cultural institutions, while retaining their right to participate fully in the political economic, social and cultural life of the State. This points to the need for recognition and support of **Indigenous people's choice of involvement** in bush produce activities - whether, for example, through commercial wild-harvests, horticulture, and/or through engagement with a customary economy (see Altman, 2007, 2010; Altman, Buchanan & Larson, 2007). However, the potential is for an increasing horticultural focus to benefit non-Aboriginal producers more than Aboriginal people (Cunningham *et al.*, 2008).

Still, there are cultivation styles and horticultural principles that offer an alternative to the rigidity of largescale monoculture, including polyculture, permaculture (Holmgren, 2004), agroforestry or small-scale farming systems, home gardens (Agelet, Bonet, & Valles, 2000), **'participatory domestication' and enrichment planting (Leakey *et al.*, 2003)**, and organic farming principles. These are more aligned with a land stewardship model of integrated land and resource systems that more closely align with an Indigenous understanding of resource management and use - one that could potentially supplement wild-harvested resource supply (Schippmann, Leaman & Cunningham, 2006). **The 'participatory domestication' model** in particular is based on involving farmers in all stages of the plant domestication process, emphasising the empowerment of the community and its use of Indigenous Knowledge (Leakey *et al.*, 2003).

Still, institutional barriers such as institutionalized racism and ethnocentrism at the basis of national economic development agendas (incl. the *Indigenous Economic Development Strategy*, Australian Government, 2010; ref. Hunt, 2011 and Kerins & Jordan, 2010) currently temper **people's** choices and preferences regarding involvement, through limiting their capabilities [Sen, 1995 (**'adaptive preferences'**), 1997; Nussbaum, 2000, 2011; Pearson, 2011]. Rather, as evidenced in the case studies, there is also need for increased producer interaction, to allow people to become increasingly cognisant of and knowledgeable in ways to increase benefits to their livelihoods. In this regard, the WestCAN network (ref. case study 5.1) proved crucial to emotional and cultural support, as well as helping facilitate connections with supra-community educational and research organizations. A combination of individual, family, group, and community producer constructs collaborated in a multi-level partnerships approach, encouraging enhanced involvement in and ownership of the commercialisation process, creating and supporting community champions, encouraging Elder and youth involvement, and increasing (cultural) pride from overall livelihood enhancement. This approach increased local-level socio-cultural and financial returns from increased on-site processing and local market sales.

The benefits of supra-communal federations are well-recognised in the international literature (Bebbington and Carroll, 2000), associated with skills development (Harsch, 2001) as well as the saving of producer costs, particularly in regards certification and branding, but also with regards to things like storage, processing, and transportation (Wynberg, 2006). The PhD research findings demonstrate that **relationships based on trust and "reciprocal accountability"** (Bebbington and Carroll, 2000) are key to long term involvement in bush enterprises, including

the support networks provided by family and kin. Support is therefore needed for the alternative multi-enterprise models that already exist in many Aboriginal communities (Alexandra and Stanley, 2007), that offer a greater chance of delivering local livelihood benefits (Wynberg, 2006; Botha *et al.*, 2005; Neumann and Hirsch, 2000; Thoms, 2008). In southern Africa, for example, 'commercialisation' of bush harvest is predominantly based on a range of local cultural activities that are aimed at local sale of fruits, seeds, and oils, with some communities involved in the selling of produce to locally-based processing cooperatives for the manufacture of products for export (Shackleton *et al.*, 2003; Wynberg *et al.*, 2006; Wynberg, 2006). Rather than an externally defined, controlled, and driven process, commercialisation is locally defined, based on customary laws. Often, endogenous forms of social organization need only to be encouraged and supported through facilitation of collaboration between stakeholders (Rinaudo & Abasse, 2006), including strong federal, state, and local government support (Wynberg, 2006).

An example cooperative structure currently operating within the Australian bush foods arena is the Aboriginal Rainforest Council in Cairns, which is a federally-funded, regional-level organisation comprising three IAF members that co-ordinate produce for 10-15 communities. This council value adds for further processing, manufacturing, distribution, food service industries and retail industries, and in the future, it is hoped that the first stage processing will also be carried out at the IAF member level, as this will potentially increase Aboriginal employment and involvement in the industry (Wayne Street, pers. comm., April 2006). Still, to ensure increased commercialisation fosters local/regional ownership, requires long-term (inter-cultural) collaboration.

Like international studies found (Grieg, 2006; Wynberg, 2006; Schreckenberg *et al.*, 2002; Shackleton *et al.*, 2003) and Walsh *et al.* (2006 a,b) reported in regards Central Australia, women in the PhD case studies have been the main producers and beneficiaries of wild/bush harvested produce. In comparison, based on the limited numbers of people observed when visiting each case study site, and talking with individual growers and harvesters, the number and ratio of men involved in horticulture has been greater. This aligned with the gendered division of labour noted in the ARRI case studies (Desmond & Rowland, 2000), whereby wild-harvest ventures were undertaken almost exclusively by women, and horticultural pursuits mostly by men. However, through flexible learning and teaching arrangements through TAFE, a number of women in the PhD case studies have undertaken horticultural and land management courses to be able to take a more active and varied role in future community plots. Still, tasks

are often gender-specific, in that they are completed in gender-based groups. The garden infrastructure building and maintenance (including fencing), for example, is mainly done by men (ref. case study 5.3).

International studies show there is a risk of mechanised systems impacting negatively on local knowledge systems, particularly in regards to TEK/IK which is often passed through generations of female producers (Greig, 2006), and it has been found that increased commercialisation may lead to displacement of women by men (Tewari & Campbell, 1996; Neumann and Hirsch, 2000). In regards **desert Aboriginal peoples' traditional land and resource management, gender** (in addition to kinship) plays a major role in the allocation of rights and responsibilities (Bell, 1993). Women and men often have distinct but inter-dependent roles in ensuring the sustainable harvest of bush resources (Berndt, 1978), ranging from physical gathering of raw produce, through to ceremonial organisation that validates certain kinds of gathering and/or ensures the continued production of specific resources (Sackett, 1977; Wallace, 1990, pp. 62-65). Commercialisation can therefore potentially upset the division of labour between men and women, which is important to ceremonial life (Brown and Haworth, 1997). Once again, cooperative institutions and/or organisations based on local institutions can help mitigate against any negative economic and social consequences for Aboriginal women (and/or men) (Neumann and Hirsch, 2000). The success of **women's** NTFP cooperatives in South Africa point to their capacity to help build the confidence, negotiation skills, and bargaining power of women (Shackleton *et al.*, 2003), which bodes well for the work of groups like *Merne Altyerr-ipenhe* (Food from the Creation Time) in Central Australia.

External agents and partnerships are key to encouraging intra and inter-group connections and networks to facilitate sustainable livelihoods (Pretty and Ward, 2001). Long-term project support from government, NGOs, private enterprise, philanthropic, and/or volunteer organisations are essential for information dissemination and skill development, often providing important links to markets and facilitating agreements with trade organisations. Wynberg (2006) and Nel *et al.* (2007) found (locally-based) NGOs, in particular, to be of help in such regards. Such support must also involve recognition of and respect for heterogeneity within local groups and communities, such **that 'all voices are heard'** (Fisher, Indukuri and Furze, 2011; Guerin & Guerin, 2007). Potential conflict, like the jealousies reported throughout the case studies, and voices of dissent regarding (externally driven) projects need to be addressed, with time taken to 'explore details with the parties concerned' (Fisher *et al.* 2011). For example, **Brenda Stubbs' concerns** regarding the Amata community garden in case study 5.3 may have been addressed early on

through the facilitation of an individual or small group meeting, in addition to any larger community-based meeting. As Fisher *et al.* (2011) highlighted, the role of anthropologists in projects can be crucial in this regard, to help facilitate (cross-cultural) understanding of local “power, heterogeneity, and group dynamics”. This is important to help ensure commercialisation develops in such a way that benefits most, if not all, local people (Thoms, 2008).

In Australia’s Arid Zone, the role of intermediaries in promoting understanding and communication between buyers and producers who are often culturally and geographically distant, needs to be supported (Jagun, Heeks & Whalley, 2007; Walsh *et al.*, 2006b).

Intermediaries can help build what Holcombe and Sanders (2007) refer to as “locally informed agency” – i.e., “a capacity to negotiate needs and manage lives within the limitations imposed” (p. 340), which is essential to Community Economic Development and sustainable livelihoods (Ingamells, Holcombe & Bultjens, 2010). Strategic partnerships can help with infrastructure development, capacity building, and/or subsidiarity (*ibid.*; see also Jawun, 2010); however, to promote sustainable local Aboriginal livelihood benefits such partnerships must be based on enabling (intercultural) relationships that encourage and support local leadership, local vision and local effort (Ingamells *et al.*, 2010).

Cleary (2009a) identified the need to develop new forms of reciprocal interdependence to overcome issues of power asymmetry in current bush-harvested bush tomato supply chains. Citing Holcombe (2005), Cleary emphasised how cooperative arrangements between Aboriginal and non-Aboriginal members of supply chains operate within a dynamic inter-cultural space. Consequently, external support for any cooperative development requires active consultation involving cross-cultural dialogue with the harvesters to ensure the development of culturally safe³ institutional arrangements (Cleary, 2009a).

Group and partnership dynamics are also likely to change over time, from dependency to a more interdependent relationship built on enhanced trust and information flow (Pretty and Ward, 2001). Such development of dynamics was evident during the PhD research, whereby the proprietors of *Outback Pride* have spent several years building relations with Aboriginal groups. However, long-term external facilitation has reportedly been hampered by a range of factors, including short-term funding arrangements, but also variable interest and mobility of participants (Armstrong Muller, 2007), so in most cases the partnership remains in a perpetual

³ I use the concept of ‘cultural safety’ here as it is used in the health profession (ref. Eckermann, Dowd, Chong *et al.*, 2010; pp. 183-190). It is about lessening the risks associated with dominance; being *regardful* (not *regardless*) of difference.

state of dependence, failing to mature to a stage whereby new ways of thinking and new realities can develop (Pretty and Ward, 2001). Rather, to reach a fully mature state of partnership requires long-term intercultural work based on recognition and support of opportunities arising from the Aboriginal cultural domain (Ingamells *et al.*, 2010).

External partnerships with Aboriginal communities, particularly those based on institution-building and capacity-building for governance (Cornell and Kalt, 2006; Hunt, 2011), can help Aboriginal organisations achieve their own goals, with the ultimate success and sustainability of such partnerships dependent on effective intercultural brokering (see, for example, the *Jawun Indigenous Corporate Partnership Model*: Jawun, 2010). This calls for an enabling role to be played by the state or other players (e.g., corporate and/or philanthropic), whereby the external support should be there to help Aboriginal communities and businesses achieve their own goals, rather than imposing externally derived goals (Hunt, 2011). Hunt (2011) warned that the latter approach would not be sustainable due to a lack of ownership. This is the situation currently facing the *Outback Pride* model (Armstrong Muller, 2007). Rather, intercultural relationships need to **involve a “mutual exchange of ‘riches’, where all stakeholders are teachers as well as learners”** (Hagan, 2005; p. 2).

It is also important to acknowledge the crucial role to be played by technology in helping create and sustain partnerships (Cunningham *et al.*, 2008). The internet, for instance, is an empowering tool increasingly being used to develop collaborative networks of people and organisations involved in NTFP production to discuss broader industry development issues and to help with local, regional, and organisational capacity-building. Electronic newsletters, on-line forums, and discussion groups facilitate knowledge exchange and help keep people up-to-date on policies and decisions likely to affect local-level enterprises [ref. Non-Timber Forest Products Exchange Programme for South and Southeast Asia, and the Inuit Circumpolar Council (ICC)]. Since 2007, the Remote Indigenous Gardens (RIG) Network (<http://www.remoteindigenousgardens.net>) has been developing such a cyber-network through its website and links (see also Australian Bushfood and Native Medicine Forum, <http://www.bushfood.net/forum>). Still, access to such electronic means of communication is currently tempered by a lack of access to technology, particularly in Laramba (ref. case study 5.2).

As was seen in the PhD research, the internet can also provide an important marketing platform, helping spread knowledge of products and processes; to broaden the consumer base

by helping breach geographic and socio-cultural divides (see, for example, <http://www.bushrub.com>). In addition, local opportunities for buying and selling of bush produce can help overcome transport and distance-related issues of product delivery, and there is potential for producers to earn greater income per hour through local sales (Leahey *et al.*, 2005). In remote Australian desert settlements, Ingamells *et al.* (2010) identified the local economy as key to both beneficial economic outcomes and social conditions. In the PhD research, local markets were found to be important to help allay inter-community jealousies, to build cultural pride and community cohesiveness. Local sales and transactions were also important to ensure maximum local benefits from IK/TEK transfer, and this was reflected in the price differentiation skewed to local/regional sales (ref. case study 5.3).

Agreements and protocols that encourage fair and equitable ABS are important to the development of a broader market and consumer base sensitive to social and environmental justice issues (Cunningham *et al.*, 2008). However, the connections between TEK/IK and various forms of certification and labelling need to be well understood, to avoid commodification of the spiritual and/or any divisive effects (Marcus, 1997; Drahos, 2004). To this end, there is increasing research into conformity assessment programs that recognise local heritage rights (Spencer and Hardie, 2011), as well as a number of initiatives to develop community-based ABS tools - including the work of the *Merne Altyerr-ipenhe* (Food from the Creation Time) reference group in Central Australia, and the work of cooperative research and development organisations like the DK-CRC (and the more recently formed CRC for Remote Economic Participation). Such initiatives merit continued federal government and industry support and encouragement in their attempts to explore and establish locally-defined BCPs (Natural Justice, n.d. and Bavikatte *et al.*, 2009). [*cf.* a recent federal Government initiative, *Nanga Mai Arung: Dream Shield*, designed to enhance information dissemination regarding patents, trademarks and PBRs (Australian Government, 2010).]

Governments have an important role to play in the development of protocols, laws and other legislation to recognize and protect ICIP (Janke, 2009). Such protections are necessary as TEK/IK is re-contextualised into management systems that involve shifts in power (Schreiber, 2002). To ensure inclusive and representative community-based decision-making and involvement, local-level institutions need policy and/or legislative support to ensure conditions are conducive to achieving the desired livelihood outcomes for all concerned, particularly women (Thoms, 2008). Flexible funding arrangements, long-term capacity building and mentoring, robust commercial structures, and sound business models that support integrated

community development and better understand Aboriginal enterprise models are needed (Whitehead *et al.*, 2006; Alexandra and Stanley, 2007). Such measures include, for example, the development of local collaborative land and resource management strategies and funding of community ranger programs⁴ (Maclean 2009; Vaarzon-Morel & Gabrys, 2009), licensing measures which relate favourably to bush harvests (ref. Canadian example at NAFA, 2002; Gray, Altman & Halasz, 2005), policy securing local employment and local economic return (Helmsing, 2003; Ingamells *et al.*, 2010), and recognition of INCRM as economic development (Altman, Buchanan & Larsen, 2007; Kerins & Jordan, 2010).

In addition, state and/or federal government subsidies and grants are needed to help support the costs of enterprise establishment, at least until the industry develops and sales increase. Although available, funding in the PhD case studies was often short-term and conditional, involving levels of bureaucracy to access (**ref. Rayleen Brown's comments on IBA in case study 5.4 and John Thomas' frustrations in case study 5.1**). Similarly, international research points to the negative impacts of state-based efforts on producers and cooperatives due to high levels of bureaucratisation, inappropriate price-setting, and rent-seeking (Neumann and Hirsch, 2000; Lele, 1981). Streamlining of approaches and/or accessing funds through other models, including corporate and/or philanthropic (Jawun, 2010) offers potential, particularly considering the demise of CDEP - however, the overall policy and legislative environment must still be conducive to this. Additionally, as Whitehead *et al.* (2006) warned, support from Government needs **to be offered "incrementally and iteratively" so skills, interest**, and infrastructure develop alongside enterprise, to help increase confidence and capacity to engage. Comments made by Brenda Stubbs (ref. case study 5.3) were to this effect, as the Bush Rub business has been developing at a pace in sync with local level capability enhancement.

In their recent attempt to streamline horticultural applications and progress enterprise development, the SA government Department of Premier and Cabinet working group is an encouraging sign that macro-level agencies are beginning to change their formerly disjointed approach. They envisage a network of individuals and communities involved in native food production that would allow for micro-macro links, facilitating information exchange and feedback on industry progress (pers. comm., Joanne Bell, Nov. 2008). Moving on recommendations made in the Armstrong Muller report (2007), they initially held a forum for stakeholders to discuss the report findings, and have since set up a Bush Foods Steering

⁴ "Since the early 1990s, a number of land and sea management agencies and Aboriginal Ranger groups have been established throughout the NT. A number of these programs are now funded by the Commonwealth Government's department of the Environment, Water, Heritage, and the Arts (DEWHA) through „Working on Country' programs" (Janke, 2009; p. 18).

Committee to assist in processing and supporting expressions of interest in growing native foods (*ibid.*).

As these measures were only established towards the end of the PhD research, it remains to be seen how effective these strategies may be. This approach, however, does not heed the need for local governance support to encourage endogenous forms of enterprise development (Ingemells *et al.*, 2010; Hagan, 2005). The Armstrong Muller report (2007) failed to acknowledge the TEK/IK at the base of the industry, instead concentrating on the need for broader market development and partnerships with existing commercial players in accordance with building an economically viable industry. **Despite one of the two main objectives being: “to describe the SA Native Foods Industry and *what it means to Indigenous people* in terms of direct and indirect benefits and opportunities” (p. 1; emphasis added),** the focus is a top-down approach, based on a set of (externally determined) minimum criteria deemed necessary to ensure commercial success. Whilst the report authors **claim to recognize “there may be instances where social, health, and well-being benefits over-ride commercial outcomes” (p. 19),** this is also deemed “outside our (their) project scope” (p. 19). However, as the SL approach taken in the PhD research clearly demonstrates, social, health, and well-being benefits form an integral part of socio-economic systems (Gray, Altman & Halasz, 2005).

There is a risk that increasing commercialisation, particularly through cultivation, will lead to monopolisation of the resource (Wynberg, 2006). Concerted efforts must therefore be made to include local producers as cultivation activities increase. For example, **in order to avoid “the inevitable decline” of commercial wild harvest** due to increased domestication (Homma, 1992), a price differential needs to be established, so the domestication process augments wild harvest activities that are socio-culturally and ecologically sustainable. This would help overcome fears relating to a decline in popularity of wild-harvest activities and the effect this could have on IK/TEK transfer, as expressed in the PhD research (ref. case study 5.1; 5.2; 5.3). Restrictive regulations relating to wild-harvested produce need also to be modified (e.g., royalty payments), with property rights in commercial species vested with Aboriginal people (Altman, 2003).

In recognition of risks to IK/TEK and cultural integrity, there is a growing number of collaborative studies focussed on better understanding the links between Care of Country, health, and well-being, generating policy reports signalling a need for change (Garnett & Sithole, 2007; Burgess *et al.* 2008, 2009; May, 2011). This research points to significant and substantial associations between Care of Country and beneficial health outcomes, providing

considerable empirical support for collaborative engagement with activities that Indigenous people assert promote good health and wellbeing (Burgess *et al.* 2008). By linking bush produce industry involvement and development in with broader NRM strategies, the fear of commercialism negatively impacting on conservation-based Aboriginal land management strategies and consequently the health of Arid Zone ecology (Brown and Haworth, 1997) can be overcome (see, for example, Altman, Buchanan & Larson, 2007; also, the linking of cultural knowledge and NRM through organisations such as NAILSMA). The recently developed **Anmatyerr Rangers' program**, for example, could be linked in with local bush produce enterprise development, thereby capitalizing on existing networks and collaborations (ref. case study 5.2).

Finally, governments have a crucial role to play in creating conducive environments for socio-economic development. Cultures are dynamic and societies are continually incorporating new and modern methods into their existing lifestyles to help improve livelihoods (Botha *et al.*, 2005), and improvements in resource conservation, social justice, strengthening of community organisation, local capacity building, and the strengthening of local culture have been reported as factors that can influence success in NTFP production at different levels of the value chain (Marshall, Newton and Schreckenber, 2003). But this requires recognition and respect for diversity (Altman, 2009, 2011), as well as a policy environment focussed on equity and respect for traditional non-monetary values (Shackleton *et al.*, 2003); on a rights-based agenda, rather than rhetoric (Kerins & Jordan, 2010; Altman, 2009; Nettheim, 2007).

The central issues relating to Australian bush produce commercialisation are inherently political, involving the modes and norms of socio-cultural integration of Indigenous Australians into the wider Australian society, as well as the control of natural resources, the ecological management of the landscape, and the creation of wealth (*cf.* Aubertin, 2004). In our contemporary 'post-colonial' Australian society, colonial and ethnocentric constructs, institutions, and influences remain strong. Reconciliation agenda like **"Closing the Gap"⁵ are focused on "livelihood improvements for Aboriginal subjects that privilege the mainstream"** (Altman, 2009; p. 13), thereby promoting equality over difference (Kerins & Jordan, 2010).

Rather, in accordance with findings from the PhD research, a rights-based approach is needed, to address social justice issues while recognising **the complexity of "culturally-distinct ways of**

⁵ „Closing the Gap' is a commitment by all Australia governments to improve the lives of Indigenous Australians, and in particular Indigenous children. It is a national strategy agreed through the Council of Australian Governments (COAG) and linked to reforms aimed at overcoming Indigenous disadvantage in education, housing, and health. (ref. Australian Government, 2009)

being” (Altman, 2009; note also recommendations of the *Royal Commission into Aboriginal Deaths in Custody* 1991, Aboriginal and Torres Strait Islander Social Justice Commissioner 2001, Ch. 1). Such an approach would align with international conventions such as the UN DRIP (2007) and the Convention for the Safeguarding of Intangible Cultural Heritage (ICH) (UNESCO, 2003). The UN DRIP (2007), recognises rights to self-determination and nationality, equality, and freedom from discrimination (Arts 1-6); rights to culture, education and language, spirituality, and participatory rights in social and economic development, through endogenous institutions (Arts 1-23); and rights relating to land, territories, and resources, including rights to ICIP protection (Arts 24-31). Art. 21:2 declares states should take measures to ensure **continuing improvement of Indigenous peoples’ economic and social conditions, paying** particular attention to the rights and needs of Elders, women, youth, children, and persons with disabilities.

These rights recognise the cultural context of Indigenous **peoples’** obligations to land and resources (Kerins & Jordan, 2010) and should form the basis of the bush produce industry, for as Dyer wrote in 1998, there is a **“moral imperative” to reward the giving (or compensate the taking)** of cultural knowledge associated with industry development – **to preserve Australia’s** cultural and ecological heritage (p. 11). In fact, the Australian bush produce industry is in a unique position to fully consider the essence of these international alignments and agreements based on human rights principles, to help address the historical legacies of Indigenous – non Indigenous relations. Along with changes to the Australian Constitution (Dodson, 2008) and/or the introduction of a Bill of Rights (Nicholson, 2010), bush produce industry development has the potential to create a more inclusive, culturally safe and respectful relationship between all Australians.

The Sustainable Livelihoods Approach has much to offer in helping realise this potential, however SL frameworks need to ensure they reflect structural, institutional and historical elements of the macro-context (Murray, 2002), while incorporating rights-based approaches to increase opportunities and empowerment (Carney, 2002). A rights-based SL framework could help to foster links between the micro and macro level activities, leading to the development of more appropriate policies and an environment of structures and processes that would support the creation of individual and group capabilities (Sen, 1997; Nussbaum, 2000, 2011) – allowing Aboriginal people to build on their own strengths, to access their rights, and exercise their responsibilities (Pearson 2000, 2011).

6.2 How best to align macro-level goals with micro-level livelihood strategies: taking a rights-based SL approach

The idea of sustainable livelihoods is undoubtedly important and particularly crucial as an improved understanding of the complexity of and the connections between livelihood strategies and contexts. In Australia, such an approach must give due recognition and respect for local knowledge systems, acknowledging and building on Indigenous approaches to sustainable development. In particular, the nature of any economic engagement needs to consider traditional values in addition to Western economic values; to transcend (the theory of) **development's dependence on Western modernity and historicity (Crush, 1995)**. Process questions about enabling rights, access, and entitlements to resources need to be asked through engagement with existing institutions (Toner, 2003).

Grootaert and van Bastelaer (2001) distinguished between two types of social capital, structural and cognitive, explaining how the cognitive elements *predispose* people toward mutually beneficial collective action, while structural elements (should) *facilitate* such action. Stressing how the cognitive elements accumulate over time and improve economic performance, Grootaert and van Bastelaer pressed for extension workers and development **agencies to gain "an operationally relevant understanding of the social and institutional fabric in places where they work", to design projects so that they can be adapted to different levels of existing social capital (p. 12)**.

Sustainable livelihoods approaches that highlight and challenge the epistemological and ontological differences at the base of sustainable development may help truly empower individuals and communities trying to better their livelihood choices and outcomes by helping inform the development of more socio-culturally appropriate and effective policy analysis and mediation. Ellis (2002) expresses similar ideas in the following words:

*The true value of SL...is **not to try to 'take over' this broad, macro multi-faceted, policy arena (which it has little, if any, legitimacy for doing), but to emphasise the continuous significance of informing the macro strategies by reference to...peoples' experiences. In other words it is about forcefully making the micro-up-to-the-macro links, and not allowing the macro processes just to unroll as if their benefits to people at the community and household level were self-evident.***

(Frank Ellis, pers. comm.; quoted in Carney 2002; p. 44)

To this end, Nussbaum (2000) advocates a development framework that is both "strongly universalist, committed to cross-cultural norms of justice, equality, and rights, and at the same

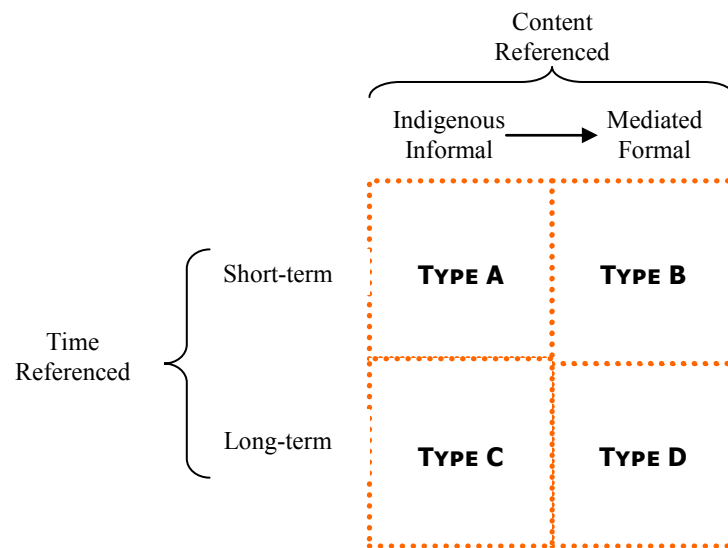
time sensitive to local particularity, and to the many ways in which circumstances shape not **only options but also beliefs and preferences**" (p. 7). **The need to incorporate international conventions and standards with those of national, state and territory legislations, and for these macro-level structures to allow new styles of participation and greater local autonomy over norm and discourse production, points to what Escobar (1995) terms a "post-development era". He explains that within such an era, the political, economic and institutional regime of "truth production" would be transformed, rather than marginalizing or precluding other ways of seeing and doing** (p. 216). In the Australian context, such an era is tempered by the continuing struggle for rights, self-determination, and social justice from the institutions of colonialism (Maddison, 2009; Aboriginal and Torres Strait Islander Social Justice Commissioner, 2010).

What becomes apparent from the analysis of the PhD research data, is the need for recognition and facilitation of longer-term Indigenous Knowledge and information exchange that would serve to strengthen social capital. Duncombe (2006) developed a typology of information roles for livelihood strategies, distinguishing between information of short-term decision-making vs. long-term capacity building, and Indigenous informal vs. mediated formal information. Using the livelihoods framework to analyse Information and Communication Technologies (ICTs) for poverty reduction, he described how information can be seen to play a dual role:

- informing and strengthening the short-term decision-making capacity of the poor themselves
- informing and strengthening the longer-term decision-making capacity of the institutions and organisations that facilitate, assist or represent the poor (p. 9)

In desert Australia, Aboriginal people predominantly hold information as Indigenous Knowledge. In contrast, formal information [i.e., that which is recorded and available in a structured form, such as technical and market information from manuals and reports, official government information, or information accessed via the internet (Duncombe, 2006; p. 9)], is more likely to be mediated through formal structures and processes. In accordance with Duncombe (2006), **Figure 45a** below outlines four distinct categories of information used to choose and develop livelihood strategies. Meanwhile, **Figure 45b** represents the dominant information types currently used by Aboriginal people in Arid Zone Australia, and the types of institutions and organisations that mediate them.

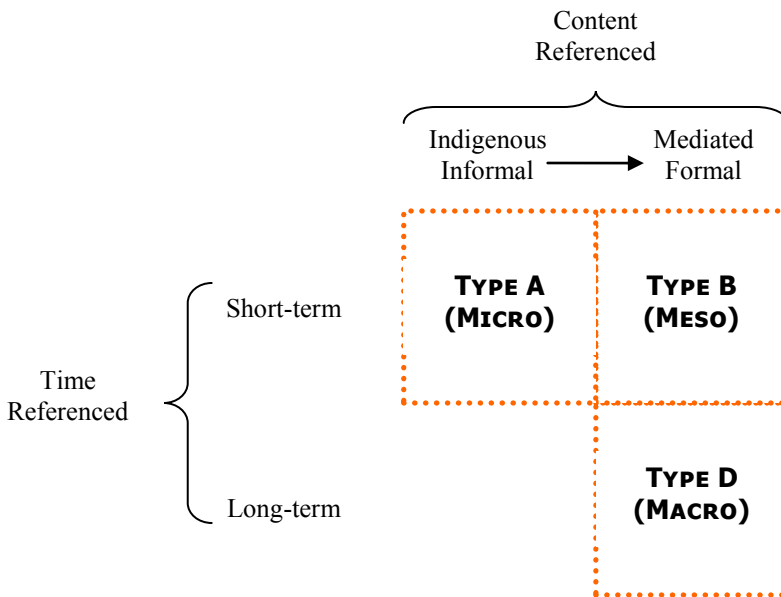
Figure 45a: Typology of information roles for livelihood strategies (Source: Duncombe, 2006).



Within the matrix, information falls into four distinct categories:

- **Type A:** Short-term information that serves immediate day-to-day decision-making needs and enables participation in social networks;
- **Type B:** Short-term information that serves immediate day-to-day decision-making needs but which is mediated through the structures and processes (institutional and organisational) within which they operate;
- **Type C:** Longer-term information that serves to strengthen social capital assets, and extend the reach (to more distant markets, for example); and
- **Type D:** Longer-term information mediated through the organisations that are seeking to strengthen the other assets (human, financial, physical, natural) – (through the provision of resources such as training, micro-finance, ICT or material inputs, for example). (Duncombe, 2006; p. 10)

Figure 45b: Typology of the dominant information types currently used by Aboriginal people in Arid Zone Australia – (incl. the types of institutions and organisations that mediate them: micro, meso, and macro-level).



From the above diagrams it is apparent that for Aboriginal people living within Arid Zone Australia, longer-term information is dominated by macro-level players. This effectively concentrates energies on building and strengthening forms of human, financial, physical, and natural capital, rather than social capital enhancement. However, as the SLA/SLF demonstrates, each of the capital assets should be viewed not as distinct entities, but as interdependent. Information processes for Aboriginal Australians living in the desert are strongly influenced by social and cultural processes; hence, strengthening social capital is key to enhancing livelihood choices, strategies, and outcomes. Members of the WestCAN network on the Far West Coast of South Australia (case study 5.1) developed a framework based on this premise, aimed at facilitating long-term information exchange through combining local Indigenous Knowledge and networks with broader technical and market information. Members reported increased pride and self-esteem as a result of their ownership of the enterprise process, which was based on local socio-cultural capital.

Still, “information requires assessment and application (either directly by people themselves or indirectly via mediating organisations) as well as access” (Duncombe, 2006; p. 10). This quote points at the importance of institutions and organisations in mediating information. Duncombe emphasised that both macro-level institutions that govern market behaviour and meso-level organisations that interface more directly with people need to act to reduce livelihood risk and

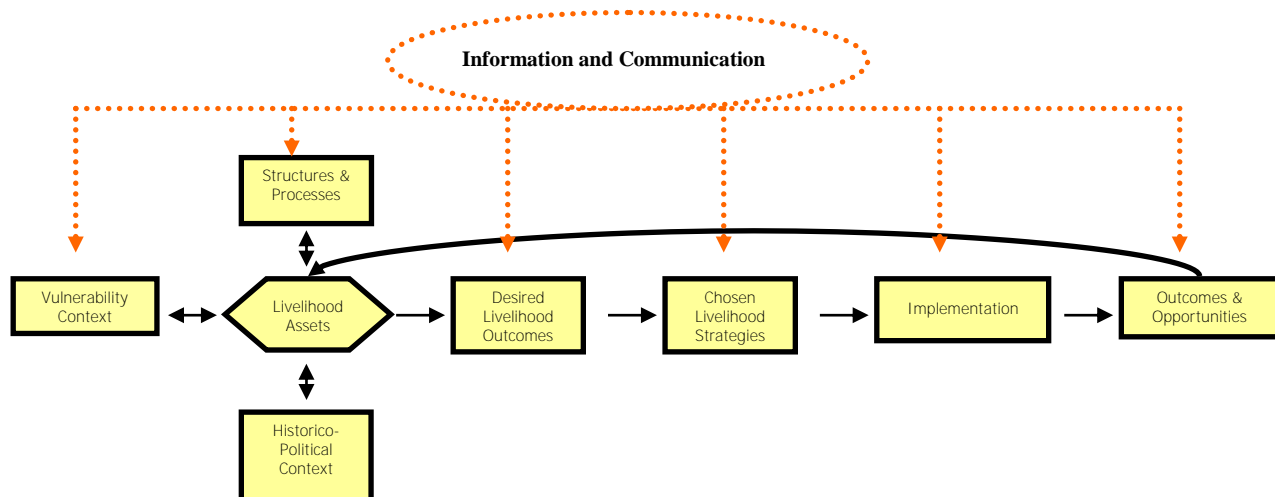
lessen vulnerability. Within the emerging bush produce industries in Australia, there would appear to be a dirge of (support for) meso-level, social-capital-strengthening organisations that could effectively act as a bridge between traditional and Indigenous knowledges and more formal non-Indigenous knowledge and information structures.

As this PhD research found, 'trust' is a strong motivating factor in enterprise involvement and development. Such trust can only be built at a personal level, through face-to-face and long-term interaction. Information must therefore be mediated through knowledgeable (ideally community-based) people and/or organisations that are recognised and trusted by the individual Aboriginal people, families, and communities looking to develop bush produce enterprises. Such information flow is also important in helping reduce any risk of dependency. It is important to **grow people's awareness of what** is happening elsewhere, to give people real choices, opportunities, and connections through the sharing of knowledge and experiences:

It's all very well and good to ask what people want/think; however, when what they want is limited by what they know or are aware of, then... (Sue Packer, former MSO, Amata community, APY Lands)

Empowering people to make informed decisions, coupled with the necessary institutional change, helps ensure maximal returns for effort. Rather than being lectured or pressured into activities that are often externally developed (both socio-culturally and geographically), people should, where appropriate and/or requested, be offered information, opportunity, access to technology and experience that helps build an enabling environment for their pre-existing small-scale enterprises and livelihood strategies (see **Figure 46**).

Figure 46: Shows the crucial role played by information and communication in the bush produce livelihoods chain.



The preceding data and analysis provide insight into the continuing development of the Sustainable Livelihoods Approach and Framework. While the PhD research has demonstrated the worth of such frameworks in aiding intercultural knowledge sharing (Moran *et al.*, 2007) and **helping exemplify the complexity of factors contributing to livelihood 'success'**, it is clear that *such frameworks need to be adapted to local circumstances in order to be of maximum relevance* (Neefjes, 2000). In this regard, there is no universal livelihood framework; rather, common elements should be changed and rearranged to suit. The SL framework designed by CAT to help understand resource flows in remote desert settlements (Moran *et al.*, 2007; see **Figure 17** in Chapter 3) identified the importance of culturally embedded local power and capability to the transformation of livelihood assets. Similarly, this PhD research highlights the extensive socio-cultural capital in Arid Zone Australia that often reaches beyond desert regions. It is this capital that now needs to be supported and encouraged, to help ensure the development of sustainable livelihoods in the bush produce industries that give maximum benefits to all participants.

"Value chains" are Western constructs that often disempower producers, as there is no direct contact between producers and consumers. However, creative and innovative producers + an enterprise process espousing ethical and respectful engagement + an appreciative consumer audience = synergistic relationships (see **Figure 47** below). The desire is to create a symbiotic relationship between those curious to explore culinary and artistic delights (the consumers) and those desirous of creating vibrant livelihoods with benefits to well-being and Country (the producers) – with a focus on social justice through economic activity that is consistent with Indigenous culture and traditions.

Each bush produce enterprise operates somewhere along a continuum of values that range from a predominantly economic focus to a more socio-cultural focus (see **Figure 48**). The key is to help facilitate information to create opportunity, so people have more choice regarding their livelihood strategies and where they wish to operate along such continuums.

Figure 47: Ethical socio-economic/social enterprise value chain. (Changes made to Chapter 1 economic value chain shown in red.)

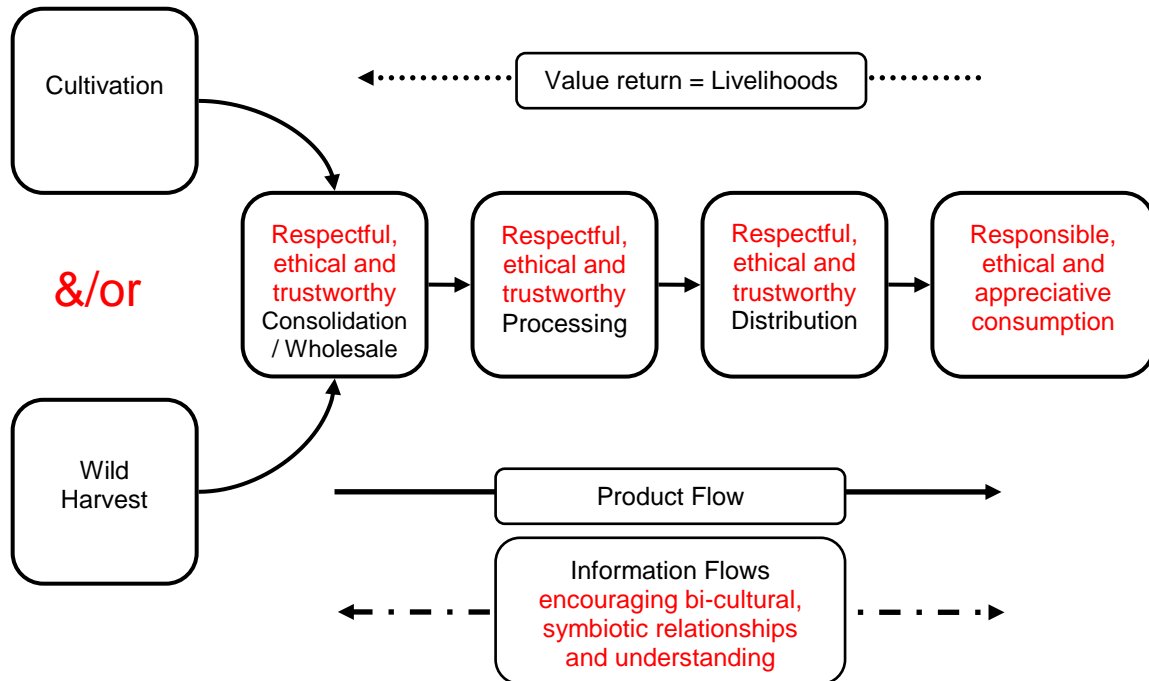
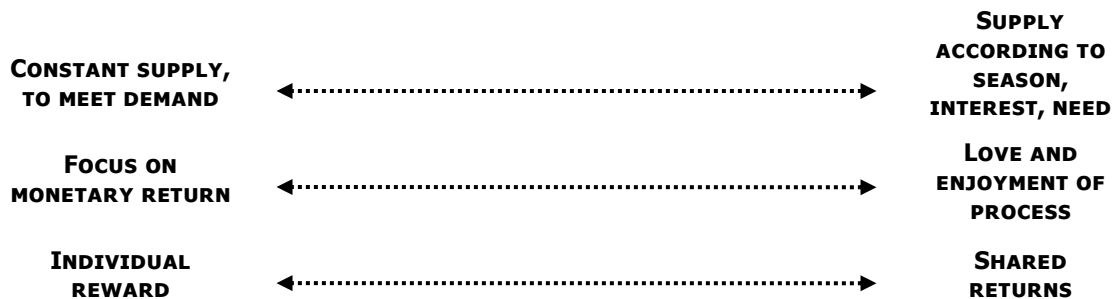


Figure 48: A continuum of values underpinning bush produce enterprise involvement and development.



Locally-based bush produce enterprises have been in existence for a long time, defying the idea that a “real economy” does not currently exist in remote communities (Altman, Buchanan & Biddle, 2006). The ‘whitefella’ idea of the need for training to fit with industry needs is contrary to a current skills base that exists and has been working in this arid environment for generations. As government funding and services to remote communities virtually determine the local economy (Moran *et al.*, 2007), it is essential that time is taken to really listen and appreciate people’s pre-existing talents and interests (Muir, 2006). New ideas and innovation spring from appreciation and respect, (as was seen in Laramba, when bush bead jewellery-

making was made more economically rewarding, case study 5.2). Aboriginal people involved in bush produce enterprises typically engage in such enterprises because they work 1) from what they already know, 2) where they are comfortable, 3) with whom they want to work, and 4) when they want to work. Given some encouragement, these micro-industries can blossom:

*I think that government, funding bodies and policy writers don't get it. They don't approve of or get that it's a livelihood – that people have a diverse livelihood base from which they work, and people diversify and respond to what's available. Government agencies and policy makers would not want to support funding a position like a bush products project officer because it wouldn't be supporting "real jobs" or "real work". But what they don't understand is that it **is** real work and it's actually providing people with income and people are engaged with it...and they don't have to have strong literacy and numeracy skills. They're actually engaged in work that can provide income plus a whole range of other things. Most of these (so-called) "real jobs" on communities require some literacy and numeracy. Not only that, but there are limited jobs on remote communities.*

It's that whole economic argument. You know, ...it's not a 'real' economic activity. It's a little cottage industry that's not worth much. Everything seems to have an economic basis to it, this whole ideology, that's been forced onto people who have a different cultural background, who speak a different language... (Anon. Aboriginal informant, Oct. 2008)

Chapter 7: CONCLUSION, IMPLICATIONS, AND RECOMMENDATIONS

7.1 Summary – What does this thesis contribute to knowledge?

As stated in Chapter 2, this research aimed to:

- provide empirical evidence about the varying modes of bush produce industry involvement and related effects in four geographically and ethno-linguistically distinct regions of arid South Australia and the Northern Territory
- report how and why specific individuals, families and communities have chosen to engage in bush produce industries
- establish what impacts involvement (or non-involvement) has had on their livelihoods and well-being to date, including social and cultural effects
- facilitate the sharing of their stories and experiences with a broader audience (including consumers, policy makers, as well as other Aboriginal people who may be interested in getting involved in such industries) (Note: some facilitation will necessarily occur post PhD)
- identify the nature of socio-cultural indicators important to Aboriginal people to help establish more appropriate research and development approaches within the industry
- identify key contextual factors and features of bush produce industry involvement that may either facilitate or impede beneficial livelihood returns
- integrate case study data with existing information and frameworks on livelihoods and well-being, in particular the Sustainable Livelihoods Approach, in order to advance conceptual understanding and appreciation of the complexity of livelihoods and the range of potential effects of industry involvement
- build on prior research, to generate suggestions for how bush produce industry development in the Arid Zone should proceed in order to maximise benefits and **minimise risks to Aboriginal people's livelihoods and well-being** through their involvement (or non-involvement) in the industry, to encourage a socio-culturally appropriate industry capable of delivering desired outcomes for all

In order to enhance the development of a socially just, environmentally and culturally sustainable, and equitable bush produce industry for the Aboriginal people in Australia's arid lands, Sustainable Livelihood approaches were reviewed and the SL approach modified. Modifications derived from talking with Aboriginal people involved in a variety of bush produce industries, in this way developing a more socio-culturally appropriate framework that considers local understandings and situations whilst appreciating the broader political economy and the

influence of historical contexts and environmental circumstances. Chapter 6 drew together the evidence across the case study sites, so what remains is to now incorporate the case-specific data with the wider goal of looking at the broader industry context and how it should be encouraged to develop in the future.

Bush produce industries – industries that benefit Aboriginal people, or industries that benefit from Aboriginal people?

There are compelling social justice and human rights reasons for involving Aboriginal peoples in these industries, combined with forceful arguments presented in this PhD to champion the development of Sustainable Livelihoods and well-being from such involvement. This research has demonstrated there are social, cultural, economic, and ecological benefits able to be realized at all levels (micro, meso and macro) as a result of Aboriginal involvement in Arid Zone bush industries. However, major challenges remain (*cf.* Altman, 2003).

This research has helped highlight the dominant hegemonic discourse that currently ensures minimal Aboriginal participation in and benefits from many emerging bush produce industries. The reality is that within the Arid Zone **(at least), these 'industries' are** really a collection of micro-enterprises and cottage industries often keenly independent and reluctant to share their knowledge, solely (or at least primarily) focused on monetary return and ways to increase profit margins, and willing to pay lip **service to 'Aboriginal involvement and benefits' for increasing** their own acceptability in an increasingly green, consumer-conscious environment. While there are exceptions, much research and development remains completely void of any serious socio-cultural considerations of produce development. Despite this, however, significant networking organisations and structures focused on maximising involvement and returns do exist. Locally based micro-enterprise approaches that have often developed in parallel to larger scale **ventures help ensure Aboriginal voices remain in the "industry", but only on the margins** (*cf.* Morse, 2005).

This research adds to the findings of previous research conducted in a collaborative manner, including the ARRI study of Indigenous enterprise (Desmond & Rowland, 2000) and the Joint Venture Agroforestry Program study of small-scale commercial plant harvests by Indigenous communities in the tropical north (Gorman & Whitehead, 2006). These studies, like the PhD research, reported a range of benefits experienced by Aboriginal people involved in bush produce activities.

While many of the benefits were found to be similar (see **Table 5**), there were also several unique beneficial effects reported in the PhD research by Aboriginal people living in the Arid

Zone (see **Table 6**). Additionally, factors found to be influencing (i.e., assisting or hampering) enterprise involvement and livelihood returns were numerous. Again, some contextual factors identified in the PhD research corresponded with those reported in these former studies (as well as in research by Hamby & Young, 2001; Alexandra & Stanley, 2007) (see **Table 5**); however, many previously unmentioned factors were identified in the PhD research (see **Table 6**).

Table 5: Summary of common benefits and contextual factors seen to be influencing Aboriginal involvement in bush produce enterprises, found both in previous collaborative studies and the present PhD research.

Benefits	Influencing Factors
Pride, self-confidence, and self-esteem	Extent of community interest
Enjoyable, sociable activity	Presence of key people on-site with a mentoring and mediating role
Training and education	Access to long-term funding, business, marketing, and technical expertise
Income (although often disappointing) and (mostly seasonal) employment	Level of income and limitations of CDEP
Traditional Knowledge transfer	Existence of networks allowing information exchange and creating links to the macro level
Nutrition	Level of flexibility in research and enterprise development
Positive environmental returns, Care of Country	Climate change and seasonal variations in produce availability and subsequent employment
Increased intra- and inter-cultural interest, understanding and respect	Extent of consumer knowledge of socio-cultural worth
Local market	Size and extent of markets, including local market availability
Local management	Continuity and flexibility of on-site management; turnover of staff and community members involved in enterprises
Ownership or access to production equipment	Ownership of and access to land and physical infrastructure (incl. vehicles and equipment)

Table 6: Summary of benefits and contextual factors seen to be influencing Aboriginal involvement in bush produce enterprises in Arid Zone communities, as uniquely identified in the PhD research.

Benefits	Influencing Factors
Language use and enhancement	Fear of Traditional Knowledge loss due to increased horticulture
Salaried employment	Socio-culturally inappropriate horticultural harvest times
Local leadership	Sense of ownership positively correlated with involvement in value-adding produce
Empowerment of women	Desire for more Aboriginal control of the industry at higher levels
	Involvement of volunteers in helping build skills
	Level of OH&S considerations
	National economic priorities (e.g., mining)
	Threat of resource loss due to feral animals
	Infrastructure layout (e.g., not conducive and inappropriate)
	Perceived importance of Elder role in horticulture
	Level of emotional support available
	Funding and education aligned with local needs (e.g., long-term; gender-specific)
	Availability of childcare facilities

While the Sustainable Livelihoods Approach and Framework were found to be useful aids to understanding the contextual complexity of bush produce enterprises and activities, (including the strength of benefits to socio-cultural and human capital), the trade-offs, combinations, and sequences of livelihood assets occurring, and the range of strategies being employed to achieve Sustainable Livelihood outcomes were subsumed. Rather, to more fully appreciate the range of formal and informal institutional processes affecting livelihoods, more in-depth analysis of power, context, and trends was required (Murray, 2002). Such analysis helped link micro and

macro levels of analysis, and ultimately can be used to inform policy development and application (Shankland, 2000).

The central idea of the PhD thesis has thus been supported – that is, that a rights-based Sustainable Livelihoods Approach to bush produce industry development is needed to enhance the development of a socially just, environmentally and culturally sustainable, and equitable, bush produce industry for the Aboriginal people in Australia's arid lands, but that the success of such an approach depends on participatory development and adaptation of the framework to the local context. The PhD found that a multi-layered, integrated approach, involving the use of a selection of different methods and frameworks varied in accordance with local needs and aspirations could increase the chances of developing a locally focused SL strategy, maximizing local agency and participation. Additionally, rights recognition is crucial to address traditional cultural values and ensure acknowledgement of the intellectual contribution of Aboriginal people to the industry as the holders of IK/TEK.

7.2 Major conclusions and implications from the PhD research

The conservation of biocultural diversity is increasingly recognised as crucial to the health and well-being of life on this planet (Maffi & Woodley, 2010). For this reason alone it should be clear that the cultural basis of Australian bush produce activities needs full acknowledgement and support. Added to this is an important argument based on human rights and social justice, **particularly considering Australia's recent colonial history and continuing colonial constructs**. Yet, for Aboriginal people living in the Arid Zone who are involved in commercial bush produce industries there remain substantial barriers and frustrations to the full achievement of their success. Rather, to make the most of this unique opportunity to recognise and support sustainable local livelihoods and well-being, there is need for assurance that the process of engagement is one based on principles of fairness and broadly recognised ethical standards.

Based on the opinions and experiences documented in the PhD, bush produce industries will not give maximum benefits to Aboriginal peoples if they continue to develop along their current trajectories. They have the potential and interest of Aboriginal people, but not their full support and motivation, due to a lack of true consultation and collaboration on their development. The **incorporation of Aboriginal people's perceptions of bush produce use and management**, customary protocols, cultural values, needs and skills is required.

As Mayers (2001) wrote, the “Four Rs” required for a more sustainable and equitable production-to-consumption system - *rights, responsibilities, returns* and *relationships* between stakeholders are critical to the flow of benefits. Hunt (2011) expressed similar conclusions after examining Aboriginal enterprise case studies from NSW: “economic development succeeds when we build on the rights, cultural assets and social networks of Indigenous people (both ‘bridging and bonding’ capital) and do not ignore those or see them as a problem to be overcome” (p. 9). The importance of such observations is apparent in the following quote, made by a participant in the PhD research based in Central Australia:

I think the industry can still get it right, but it's a matter of doing the right thing. Not just talking about doing the right thing, but it's actually about setting up the processes and the mechanisms for the right thing to happen, from research through to industry. Don't just roll out Aboriginal people. Don't sell, you know, "this is a bushfood that has been wild-harvested from Aboriginal lands" and roll that out to sell the product, so you're using the culture and tradition to sell the product, but you really don't want anything to do with Aboriginal people from where it's coming from. It's all in the process. I get sick of... you know, you have to walk the walk and talk the talk. Don't do half and half. (Anon. Aboriginal informant)

So, are there ways to help mitigate the factors hampering beneficial returns, to overcome the associated risks of involvement? This study identified a number of key points in both the literature and the case studies that are in need of consideration in the development of a bush produce industry that is socio-culturally just and beneficial to local Aboriginal livelihoods and well-being:

1. TEK/IK is the basis of bush produce enterprises and must be encouraged for bio-cultural health

Bush produce is associated with *tangible* and *intangible* aspects of culture (Throsby, 2001; UNESCO, 2003), and bush produce enterprises are consequently based on a knowledge economy and the marketing of cultural heritage. For this reason, beneficial industry returns to **Arid Zone Aboriginal people's** livelihoods, well-being, and environments require the clarification of Indigenous Intellectual Property Rights (IIPRs) to bio-resources, and increased support for and linkage to Indigenous Natural and Cultural Resource Management (INCRM) programs (e.g., *Working on Country* and ranger programs; *People on Country*, May, 2011; Altman, 2011). TEK/IK, which includes customary laws, should be regarded as a key resource for industry development that achieves sustainable livelihoods development in the Arid Zone as TEK/IK is socially and culturally embedded (Holcombe, 2009) and cultures and traditions rationalise action (Jenkins, 2000; Radcliffe, 2006). The narratives of the PhD research participants supported this:

The industry needs to respect that these plants and the fruits from the plants come from Aboriginal country, the strong social and cultural connections Aboriginal people have with these plants and the fruit, and to recognise and respect that and to acknowledge it. The industry needs to do that, researchers need to do that, and stop pretending that they're dealing with carrots... I mean, these are plants that still have cultural connections to country and people. It hasn't disappeared 10,000 years ago like whatever happened to wheat or whatever... I think people need to deal with bushfood on its own merit. For Aboriginal people it's been part of people's social and cultural lives for generations and generations and generations... but for the industry it's new. People have only become aware of it in the last few years in terms of consumers and in terms of it being a fruit or something that they can make chutney out of. (Anon. Aboriginal Informant, Central Australia)

2. Producers have cultural rights and responsibilities that need to be respected and protected, and they require information in order to be able to make informed decisions about enterprise involvement and development

Aboriginal bush produce harvesters and producers know that bush produce is steeped in generations of wisdom that relies on inter-generational knowledge transfer and transformation to ensure its sustainability and relevance to contemporary life:

You don't have to teach Aboriginal people about bush tucker. You don't have to teach them nothing, because they already know it! They're already in the business of bush tucker. They have been for the last 200,000 years... 40,000 years of being there already doing this – 40,000 years of knowledge,...or how far back do you want to go?

(Rayleen Brown, *KungkasCanCook*, Alice Springs catering business, June 2008)

Ensuring the continuity of traditional customs and knowledge across generations came through **strongly in research participants' responses** as a major motivating factor, fundamental to sustainable livelihood development:

Need to have the worth of the Elders' input seen and appreciated. Perhaps encourage the role of the Elders so they have more chance to participate/play an active role.

(WestCAN workshop, Oct. 2007)

'Active listening' to community members and involvement of Elders in all bush produce activities, including horticultural activities and/or extension activities with trips to Country, are required to really add value, experience, and cultural learnings. Hosting projects in schools could help with inter-generational knowledge transfer and 'two-way learning' - as seen in case studies 5.2, 5.3, and 5.4. Support for such activities depends on an understanding of the bush produce industry as part of a 'culture-based economy' comprising interlinked Country, Culture, and Business components (Armstrong, Morrison, & Yu, 2006; p. 4). By encouraging a local definition of 'commercialisation', there is greater local ownership and control over tangible and intangible cultural heritage (Shackleton *et al.*, 2003; Wynberg, 2006). Such control is internationally recognised as a basic human right (UN DRIP 2007, Art. 5; UNESCO, 2003).

3. Producer communities can offer important cultural and emotional support, but should be based on/build on local institutions

Having a network of people to call on for support when you need them; a barter system of help; easier ability to talk and communicate both within and outside the group/network; a new group of people to socialise with and get to know better; trust between people in the business network. (WestCAN workshop, Oct. 2007)

Social capital should be supported through the creation of small groups within existing social solidarities and facilitating horizontal links across these groups (Grootaert & van Bastelaer, 2001). Email, telecommunications, and newsletters sharing experiences between different places, workshops to bring people together to meet and discuss issues, regional partnership agreements, can all help lessen economic isolation (Odero, 2003) and cultivate '**spaces of hope**', where alternative discourses to the mainstream economy can thrive (Leyshon *et al.*, 2003) [see, for example, RIG electronic network, <http://www.remoteindigenousgardens.net>; cf. marula commercialisation process in southern Africa (Shackleton *et al.*, 2003)].

Research participant, Josie Douglas, emphasized the need to work with endogenous structures:

*The Aboriginal side of bush products and harvesting **is** working. Strengthen that, support that. Not necessarily by having one large co-op based in Alice Springs to which people could come and sell to...that's not the answer. It's about supporting individuals and families on all these remote communities, whether they need more drying racks or more storage containers, ... It's actually strengthening and supporting people in **small ways**. It's not in bigger, make it bigger, better, large co-ops, ... you know, it's about supporting what's working already and supporting **people**. I think people continually look at infrastructure and they look at business or they look at various other things... but what they need to do is support people. Support Aboriginal people in ways that Aboriginal people want to be supported.* (Josie Douglas, pers. comm., Oct. 2008)

4. External partnerships are crucial for professional support. These relationships need to be long-term, based on trust, respect, and principles of reciprocity

Altman (2009) wrote that "community-based organisations are critical to enhancing prospects and links with the market" (p.13); however, such organisations need to seek vertical links with state and/or private organisations, particularly in lieu of CDEP funding. The development of a *local innovative milieu* (Maillat, 1995) can be helpful in this regard, referring to the interaction between enterprises, research and training institutes, business development services, and local authorities. DKA has helped build such a collective learning environment, facilitating and coordinating strategic enterprise support functions that are located within Australia's **Arid Zone**. In particular, the local organisation of support systems can help remove barriers to innovation, including small markets and poorly developed information networks (Helmsing, 2003).

There is a need for long-term, on-site technical, business advice, support, and mentoring, aimed at helping build individual and community capacity; (financial) support for programs which facilitate inter-generational knowledge transfer, as well as cross-cultural understanding and the sharing of knowledge about bush produce; realistic understanding of the long-term nature of bush produce enterprise and industry development and the subsequent need to diversify activities (at least) in the short-medium term; scaling of projects in accordance with local interests and capacity – expanding ideas and outcomes in accordance with locally-defined objectives; and increased financial remuneration for work effort, based on a fairer and more ethical pay range/system.

Corporate and philanthropic partnerships will be important in this regard (Jawun, 2010); however, to promote sustainable local Aboriginal involvement and livelihood benefits such partnerships must be based on enabling (intercultural) relationships that encourage and support local leadership, local vision, and local effort (Ingamells *et al.*, 2010), to prevent broad-scale disengagement:

The approach is wrong. Ownership of the garden isn't there. We're currently trying to work out the best approach to take – individual ownership? family-based ownership? or a supervisory team approach? As things stand, everyone thinks 'well, he/she isn't helping in the garden, ...so I won't'. We need to work around this.

(Amata Chairperson, Lee Brady, pers. comm., Feb. 2009)

5. Local markets are important to ensuring local level livelihood returns and enhanced intra-cultural amity and respect

There is a need to work with locally existing structures, (instead of creating parallel structures for implementing programs/projects/ideas), to aim at maximising beneficial returns to local livelihoods and well-being, particularly through on-site value adding and/or sales. Research, recognition, and support for local markets are needed to ensure local (nutritional/medicinal) needs are met before produce is taken/sent off-site. Local customs and appreciation of bush produce can also be a major source of inspiration and motivation for enterprise involvement and further development:

People in community see what you do and it makes them think "I'd like to do something like that" - they want to help, get involved, ask questions, and learn; teaching others (old or young) who don't know about plants and how to grow them; giving something back to community with vegetables (promoting healthy eating); getting respect, support, and acknowledgement from community; working to get others involved.
(WestCAN workshop, Oct. 2007)

6. Broader market development should be based on the promotion of inter-cultural respect and reconciliation

Facilitation of producer – consumer connection and networking would help increase understanding, particularly of the socio-cultural value of bush produce, encouraging ethical and learned consumption. (New) markets would thereby develop. The Fair Trade process offers an ethical approach to socio-cultural enterprise development that perhaps aligns best with widespread beneficial outcomes. This process is currently being investigated to help establish an appropriate benefit-sharing process with Indigenous Australians (Spencer & Hardie, 2011). Such certification schemes and education of the market remain important steps in the process towards symbolic and practical reconciliation:

Why, despite all the training, all the supposed good intentions, all the money and projects to enhance Aboriginal youth employment,... Why do our young people often leave places of employment within a short timeframe? Too many speak of feeling uncomfortable, of feeling shame, of feeling overwhelmingly alone on the margins of a majority (white) culture that has trouble fully accepting us. How do we overcome this barrier? Surely this is our greatest hurdle...

(Joylene Haynes, community Elder, Ceduna, February 2009)

7. Government support involving policies and legislature conducive to sustainable Aboriginal involvement is needed

A more coordinated, complementary approach and discussion between state and federal governments, the private sector and Aboriginal organisations and groups would facilitate information sharing to enhance local livelihoods, fostering integrated enterprise and community development (ref. Jawun 2010, and Canadian examples of best practice in *Report of the Working Group on Aboriginal Participation in the Economy*, 2001). Within such an approach there is a need for flexible funding and grant processes that are based on an inter-generational timescale (Davies, 2006); better cross-cultural training and awareness for non-Aboriginal agency and community-based staff (including the importance of the use of interpreters); development at a pace, scale, and in a form that people are comfortable with, that meets OH&S standards, **and meets people's** specific needs at the local level (e.g., childcare provision); as well as trade facilitation and marketing support.

Government institutions, policies, and legislative procedures are needed to broaden recognition, respect, and protection of TEK/IK, to facilitate bio-culturally safe commercial development [ref. an example from India, *NIF - National Innovation Foundation* (Gupta, 2006); cf. a recent Australian Government initiative, *Dream Shield* (Australian Government,

2010)]. “Active protection” (Holcombe 2009; p.9) offers the best way to ensure local engagement and agency in knowledge protection and management, and needs to be coupled with an innovative national policy approach recognising that diverse culture-based hybrid economies are the “real” economy in remote Australia (Altman, 2003, 2009; Altman, Buchanan & Biddle, 2006; Martin, 2006; Hunt, 2011). This is an urgent matter of human rights recognition and protection (UN DRIP, 2007). The Australian government endorsed the UN DRIP (2007) in 2009, and must now **support Aboriginal peoples’ involvement in the** emerging bush produce industry in light of the rights and principles stated therein. Additionally, the Intangible Cultural Heritage Convention (UNESCO, 2003) is of particular relevance to the recognition and enhancement of TEK/IK. The Australian government must endorse this convention to help facilitate the safeguarding, revitalization, and sustainable use and development of Aboriginal **peoples’ culture, which forms** the essential knowledge base of these emerging contemporary industries.

Broader cultural education at school would also help in the long-term with changing the hegemonic discourse regarding what constitutes meaningful employment and industry development. Sustainable and viable technological practices should be incorporated along with their institutional contexts into the educational system so that future leaders of society recognise the need for treating local knowledge systems with as much respect, and policy and institutional support as necessary (Gupta, 2006):

The bushfoods industry is reliant on cultural knowledge, it’s reliant on people who are interested and have the skills and the knowledge and the motivation to do really hard work, and it’s done under difficult conditions, but people do it. I always laugh when I hear the thing of people are lazy or they don’t like to work... Well, you go out on a harvesting trip and you see who’s lazy and who’s not motivated to work! But, it’s a type of work. (Not all) people aspire to have 9-5 jobs and be at a desk, at a computer-based job. Whitefellas just can’t get their head around it! ...They all need the experience of keeping up with a 70-year-old! (Josie Douglas, pers. comm., Oct. 2008)

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APPENDICES



APPENDIX 1



Brochure for bush jewellery

From Tree to Store

APPENDIX 2



PhD thesis project description
– information sheet and consent form

PHD THESIS PROJECT DESCRIPTION



Project Title:

**“Aboriginal Peoples’ Livelihoods and the Emerging Bush Produce Industries
– Recent Experiences from Australia’s Arid Zone”**

Researcher: Janelle White

M.A. (Applied Anthropology & Development Studies)
PhD student at the Centre for Rural Health and Community Development,
University of South Australia
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Supervisors:

Prof. Bernard Guerin (University of South Australia)
Prof. Tony Cunningham (Charles Darwin University)
Josie Douglas (Indigenous Research Fellow – CDU)

Research Timeframe: 2006-2009

This research forms part of the work being undertaken by **Desert Knowledge CRC** on *Sustainable Bush Produce Systems in the Arid Zone*, which aims to improve opportunities for the Arid Zone native foods industry, and *Livelihoods* research which is working to improve opportunities and livelihoods (health, well-being, and income) for Aboriginal people living in arid regions.



Source: Social and Emotional Well-Being Framework;
Social Health Reference Group 2004; cover of the national report.

What is this project about?

The Australian bush foods industry is dominated by non-Aboriginal growers, business people, researchers and others who contribute to the economic value chain. ... Equitable, fair and sustainable livelihoods for Aboriginal people and enterprises depend on balancing different values: cultural and social vs. dollars; wild harvest vs. horticulture; local vs. national economies. (Walsh, Douglas, Jones, 2006)

This research aims to address the current lack of understanding of socio-cultural issues around Aboriginal peoples' involvement in the emerging bush produce industries in Australia, and to help identify ways in which benefits can be maximised (and any negative impacts minimised) to ensure the development of a socio-culturally fair and equitable industry. To help do this, this study will investigate:

- how and why Aboriginal people living in arid and semi-arid Australia are choosing to participate in the bushfoods industry;
- identify some of the positive and/or negative effects this engagement is having on **people's livelihoods**, well-being, and life opportunities;
- encourage and supporting empowerment of Indigenous people who participate in bush produce industries so that they can derive maximum livelihoods benefits while retaining control over their traditional knowledge.

Why is this project worthwhile?

I've been doing some reading on different bushfoods and how Aboriginal people in desert areas of Australia are harvesting them in the wild or growing them – both for their personal use, and also to sell. In Central Australia, I have traveled to speak with different people involved in the Northern Territory and South Australia, men and women, harvesting from the wild and/or growing bushfoods. Everyone involved has their own story about why they collect or grow bushfoods, and it is these stories that could help improve the bushfoods industry to help make it easier for people living in communities in the Arid Zone to participate in it and benefit from it. This project can help tell these stories so they are heard by government-level decision-makers who can then better understand how people in **communities feel and therefore better respond to people's wants and needs. People's stories** will also help directly inform others who may be interested in getting involved in the bushfoods industry but would like to know more about it.

Who would I like to work with? & How would I like to work with people?

I would like to visit each community at a suitable time during this year, 2007. I would like to work with people who may be interested in telling their story. To do this, I would like to get to know people, perhaps take part in bushfood harvest activities to help with the work where I can! I would also like to interview people who are involved in or interested in the bushfoods industry and its development – **(with 'interviews' being semi-formal in style – rather 'having a yarn around some questions')**. **Getting to know more about people in the bushfoods industry** by speaking directly with them I think is the best way to really **understand how the industry is affecting people's lives. This project offers a chance for** people to really have their say in how they would like to see the bushfoods industry in the future.

I have also been speaking with people from government departments and private companies who are involved in the bushfoods industry. I would like them to also tell their stories and hope that there may be a chance for everyone to come together in a workshop at the end of the project to share their stories and experiences, so people get to hear and respect what other people think. (Such a workshop will depend on budget and time constraints.)

Interviewing/Yarning

I have a few questions I would like to ask people about their involvement or interest in the bushfoods industry. These include questions about:

- why people choose to collect or grow bushfoods for sale;
- feelings about current participation and thoughts on future involvement;
- **impact of participation on people's livelihoods**, including: employment and income; education and training; health and well-being; culture and traditions; and
- thoughts on benefits to the bushfoods industry if Aboriginal people are involved.

(The questions I've put together are attached at the end of this information sheet.)

I would also like to encourage people to tell their own stories about collecting or working with bushfoods for their own consumption or for commercial sale – including the good things, the not-so-good things, the things that might need to change so bushfood collecting and/or work is more beneficial.

Participation in interviews will be completely voluntary and interviews will not take place until people have given prior informed consent to be involved in this study. Participants are able to withdraw their consent at any time during and/or after the interview, without prejudice. Part of the process of informed consent is to:

- inform people about the nature of the research project;
- see if people will allow the interviews to be taped (or videoed if desired); and
- let people know how the information in the interviews is intended to be used.

I expect each interview to take approximately **2 hours**.

How will the information be used?

At the end of the study (which will be in 2009), some of this information will be used in a PhD thesis to be handed in to the University of South Australia. Perhaps people in your community would like to keep their own information in another way too – maybe on video/DVD or in a book. I would like to work with people to develop their own ideas and products. I have experience in writing, photography, and some video-making, so would be able to help facilitate any project people would like to build from their stories.

All the Intellectual Property from such products will remain with the speakers/participants. I will work out any other details, including how and when participants will be provided with either a copy of the final research report or a summary of the research findings, together with you and your community members, through discussion and a formal collaborative research agreement. All information collected as part of the study will remain confidential and **be retained for seven years at the University of South Australia's Centre for Rural Health and Community Development in Whyalla.**

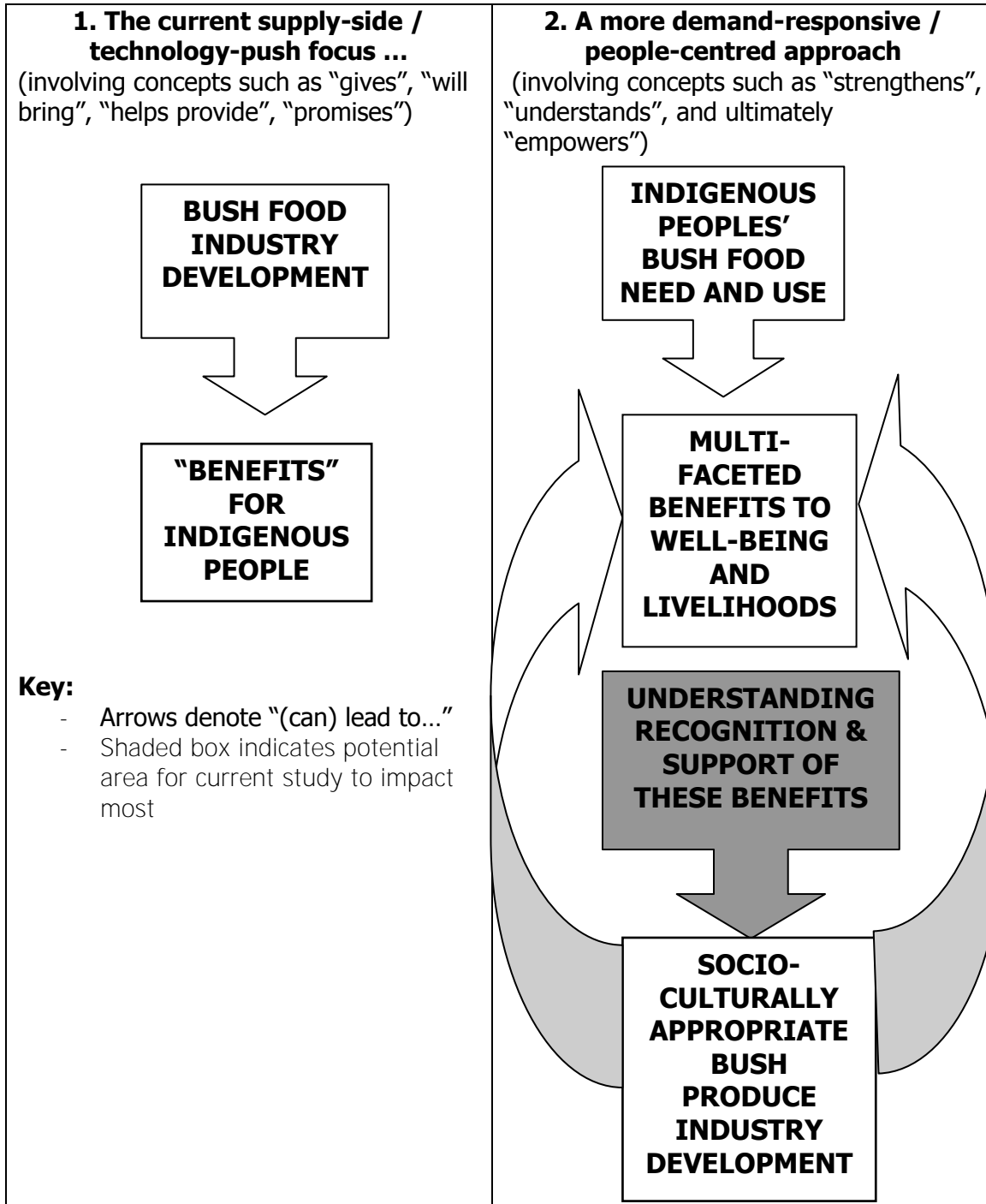
Contact Details

If you have any questions about this study, please feel free to contact either myself, Janelle White, or my supervisors, Josie Douglas or Professor Brian Cheers. Alternatively you can contact The University of South Australia's **Human Research Ethics Committee Executive Officer**, Vicki Allen: phone (08) 8302 3118 or email Vicki.allen@unisa.edu.au. The Executive Officer is available to discuss any ethical concerns about the project and to answer questions about the rights of participants.

Josie Douglas, Indigenous Research Fellow Desert Knowledge/ School of Social Policy and Research Charles Darwin University, Alice Springs Ph. (08) 8959 5270 Email: Josie.Douglas@cdu.edu.au	Prof. Bernard Guerin, Professor of Psychology University of South Australia, Magill Email: Bernard.Guerin@unisa.edu.au
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Why the research?

Simplified Bushfoods Industry Development Models:



WRITTEN CONSENT FORM

<p>Project Title:</p> <p>“Indigenous Livelihoods and the Emerging Bush Produce Industries - Recent Experiences from Australia’s Arid Zone”</p> <p>Researcher’s Name: Janelle White (PhD Researcher at the University of South Australia)</p>
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1. I, (*please print name*)
wish to take part in the research project entitled:

***“Indigenous Livelihoods and the Emerging Bush Produce Industries
- Recent Experiences from Australia’s Arid Zone”***

2. I have read, or had explained to me, the Information Sheet called:
PhD THESIS PROJECT DESCRIPTION
(INFORMATION PAGE)

3. The researcher, Janelle White, has talked to me and told me what I want to know about the project.

4. I agree to take part. I know that I can say yes or no. I don’t have to answer any question I don’t want to. I know that I may change my mind and stop at any time.

5. I agree to this interview being audio taped/videotaped/photographed. I know I can say yes or no. I understand that the tape will be securely stored, when not in use, at the UniSA’s Magill Campus, in Adelaide. When the project is complete, notes, data and copies of audio-tapes and video/DVD will be transferred to the University of South Australia, Whyalla Campus, to be stored for 7 years, after which time they will be destroyed (*unless otherwise requested*).

6. I agree that information gathered for this project may be published, provided my name or other information which might identify me and my community is not used (*unless I choose so – see below*).

7. I understand that all information provided is treated as confidential and will not be released by the researchers unless required to do so by law.

8. I will be given a copy of this Consent Form and the Information Sheet to keep.

.....

.....
(*signature of informant/parent of informant*)

(*date*)

I agree/don’t agree to the publication of my name.

RESEARCHER

I have described to (*name of informant*) the purpose, methods, demands, and possible outcomes of the research (including publication of research results). In my opinion she/he understood the explanation.

Signature: **Date:**
.....

APPENDIX 3



Interview guide
for
COMMUNITY MEMBERS, COMMERCIAL RAW
PRODUCE HARVESTERS AND GROWERS

**COMMUNITY MEMBERS, COMMERCIAL RAW PRODUCE HARVESTERS AND GROWERS:
EXPLORE THE SOCIO-CULTURAL BACKGROUND OF BUSH FOODS**

- 1. Why is bush tucker good for you? / What makes it good?**
- 2. How often do you eat bush foods? (both bought and gathered)**
- 3. Do you usually eat bush foods alone, or share them? (with whom?)**
- 4. What species do you eat most often? Are these foods also used as medicines?/other uses for the plant?**
- 5. Are there special rules that you must follow when picking bush foods?**
- 6. Who first taught you about bush foods?**
- 7. Do you perform ceremonies/songs/dances/paintings for bush foods? (why?)**

EXPLORE PARTICIPATION/NON-PARTICIPATION IN THE BUSH FOODS INDUSTRY

- 1. Could you tell me about how you first became involved in the bush foods industry?**
 - how long in the industry?
 - describe type of involvement (eg. wild harvest &/or cultivation?)
 - external support? (private enterprise, government, community?)
 - what bushfoods (species)?
 - how do you decide what to collect for sale vs. for consumption?
- 2. Why did you become involved?**
- 3. What sort of benefits have you experienced from involvement?**
 - (E.g. education?/training?/business skills?/health benefits?/employment?/income? /cultural strengthening?/...others?)
- 4. Have there been any costs/negative things associated with your involvement? And how do you deal with them?**
- 5. What do your family, friends, and broader community think about your involvement in the bush foods industry?**
- 6. What are your hopes for future involvement and what would you like to see happen?**
- 7. Do you know of anything stopping you from achieving your hopes?**

EXPLORE THE PARTICIPATION PROCESS

- 1. Could you describe a typical harvest day?**
 - when/how often/where do you harvest?
 - how do you know when and where to harvest?
 - how do you access/travel to harvest areas?
 - do you usually work/harvest alone or with others? (household members, family, friends?)
 - are pickings grouped together? / stored in a general area? / how much is eaten?
 - how much energy is needed? (and is the money worth the effort?)

2. Who do you sell to? Tell me about your relationship with this person or people/organisation(s)?

- how long have you been selling to this person?
- do you always sell to the same person/company each season?
- how do you decide who to sell to? why this person? what is good/bad about this relationship?
- do you receive plants, technical support, training, advice, knowledge, bargaining power?
- how is payment arranged? (e.g. cash, cheque, CDEP)? are you happy with this arrangement?
- how much per kilo do you earn? does this vary according to buyer/season/produce?
- who decides the price?
- do you value-add? (eg. bag/box; wash/clean; sort; weigh and record?)
- are you always able to sell your produce when you want to?
- how do you send your produce to market?

3. Do you work together with other bush food producers or other enterprises? How important is this connection to other producers/businesses? Why?

EXPLORE THE TASK ENVIRONMENT

1. Do you think the community as a whole has benefited /will benefit from being involved in the bush foods industry? In what ways?

- (E.g. infrastructure development? / community resources (funds)?; employment opportunities?; increased community spirit/pride?; local market?)

2. Tell me some of the main issues you see with Aboriginal peoples involvement in the bush foods industry

- is it important? Why?/Why not?
- what might help industry involvement and benefits for Aboriginal people?
- do you think the government should be working with Aboriginal people to help develop the industry? (in what ways?)
- should traditional knowledge be put into commercial products?
- how do you think the bush foods industry compares with other land management techniques and/or economic enterprise opportunities (e.g. mining; tourism)?

+ ARE THERE ANY QUESTIONS YOU WOULD LIKE TO ASK ABOUT THE BUSH FOODS INDUSTRY????

....AND IS THERE ANY MORE INFORMATION YOU WOULD LIKE TO TELL THE PEOPLE INVOLVED IN DEVELOPING THE BUSH FOODS INDUSTRY TO HELP MAKE IT AN INDUSTRY WITH MAXIMUM BENEFITS FOR ABORIGINAL PEOPLE????

APPENDIX 4



Reflexive Diary Extracts

Diary of a PhD

12.12.2006

I'm building up the idea of an interview-style approach. After returning from the initial scoping field trips, I feel it may be best to take a more structured question approach as there currently seems to be a rather small number of individuals involved in the bushfoods industry on a more intensive basis and these key individuals are typically in demand in terms of their time. Coupled with this is the fact that people are often mobile, seasonally moving between homelands and outstations to larger communities, settlements, and towns. So, the people I meet during each site visit are likely to be different every time.

The first draft questions will come out of the livelihoods framework and will be a result of: the literature survey; initial observations in the field; feedback from supervisors; and, initial thoughts and feelings expressed by individuals in the field. I'll need to clarify and (re)define the questions as I go – i.e., a rather emergent/organic approach – because I feel the best people to know what questions are most appropriate or suitable are the people who will answer them. The sample of people interested in taking part in the interview process will hopefully grow from suggestions made by the key individuals who could be interviewed first. I hope that men, women, and people of varying ages will be interested in participating. I also think that an open-ended style of questioning that allows people to express their own concerns, achievements, etc. is really

Driving home to Penong after first interview with Ruby Saunders at TWT, Ceduna. 5th Oct. 2007 (Audio-recording - i.e., both hands on the steering wheel!)

How did that go – my first real interview? I *think* it went well! And I think we were both pretty relaxed, chatting, ... which is good! The length of the interview was just over an hour and a quarter and it took about 20 minutes to explain the university side of it and the requirements for the ethics, etc. So, about 1 ½ hours is probably enough in total – which is good.

The questions were modified according to Ruby's experience. Issues about the commercialisation of bush foods were interesting to hear. These ideas are about commercialism, ownership, knowledge, identity, control, having Aboriginal input at the higher levels – and the West CAN structure is helping in this regard.

Diary of a PhD

Adelaide 17.03.2007

I have just returned from 2 weeks in Alice Springs, where I was living in a caravan with an extremely noisy air-conditioner! I've decided temperatures over 40 degrees make it difficult to think! I met up with more people involved in the bush foods industry – people who could help influence policy and further research - ('stakeholders' seems an apt term when talking about horticulture!). I now think these people should also be involved in the interview process, as the departments they're aligned with often have great influence over people's livelihoods. Additionally, if they are engaged with the research, there is much more likelihood of the research outcomes being met through better communication and understanding.

Diary of a PhD

Port Victoria, 13.07.2007 (Pilot interview)

Ron (Newchurch) expressed the thought about being 'researched out' – i.e., too many people taking too much information. He asks: "What do you have to give us?" which is a fair question. What practical outcomes will my research achieve? What policy implications? (...and what hope is there for such policy recommendations in the current political climate?). My response is to ask: "What can I do for you that would be of most value?" – Information? Volunteer labour?... I understand the importance of research relevance to peoples' lives.

Ron says that as they have no on-going contact with other bushfood growers, they would find it helpful to have newsletters and/or email contact with others involved in the industry, with face-to-face workshops being the most suitable forum for him – enabling lively discussion and debate that can help overcome industry problems and frustrations. Perhaps in this sense it is a community of like-minded families and individuals that needs to be encouraged and strengthened (rather than a sense of 'community' based on pseudo-Aboriginal constructs largely determined by

APPENDIX 5



Sample of Matrix of Sustainable Livelihood capital
as identified at two-day workshop held in Ceduna, Oct. 2007

WestCAN Network members
Far West Coast Case Study

1. SOCIO-CULTURAL CAPITAL	Current effect of bushfoods industry involvement	Desired future effect	Frustrations, constraints or worries	Possible solutions
SOCIAL COHESION (PEOPLE WORKING TOGETHER) AND NETWORKS	People working together, learning from each other and helping each other; the community is supportive of each others' productions/enterprises; having a network of people to call on for support when you need them is good; a barter system of help; easier ability to talk and communicate both within and outside the group/network; a new group of people to socialise with and to get to know better; trust between people in the business network.	More sharing of business visions - to encourage more interest, extra workers, and to motivate from within	Getting support to make our business stronger	We have to let people know about our business and ask for help to make it stronger. What about a newsletter? Possible use of the internet to gather and share ideas; group sharing of ideas - word of mouth; the (future) possibility of showcasing businesses to others within the Aboriginal community, to help encourage broader interest and support.
FAMILY INVOLVEMENT	Supportive families; connections through family members to broader markets; family members helping with product development, marketing	"Giving something to our grannies" - for future generations	Worry about if our kids have got something to look forward to when they get older	Teach, learn our kids to get involved so they grow to see that they have a future. Try to engage youths who are perhaps looking for something more/an opportunity. Possibly work with the school to do this.
COMMUNITY INVOLVEMENT	People in community see what you do and it makes them think "I'd like to do something like that" - they want to help, get involved, ask questions, and learn; teaching others (old or young) who don't know about plants and how to grow them; giving something back to community with vegetables (promoting healthy eating); getting respect, support, and acknowledgement from community; working to get others involved.	More people getting involved – e.g., full-time employment / CDEP	Community-based business = A problem in what's in it for me? (e.g., community-based land may have specific tenure rules; community board of management changes); what do people living off-site (e.g., in Ceduna) get out of business involvement?; possible jealousy effecting people entering the business; people leaving the area for work elsewhere - there is a need to get them interested to stay and make it grow	There may be a need to get councillors or the board of management to sign an agreement (contract) saying that we have rights to the use of the land and that nobody can take away these rights or make us pay.

<p>EFFECTIVE COMMUNITY ORGANISATION</p>	<p>Group support is really necessary. The role of the Elders is important. The enterprise network (West CAN) provides support.</p>		<p>"Changes at community level made me feel like giving up." "People in the office don't fully support our work - we've got no vehicle to cart plants, to do work."</p>	<p>Need to have the worth of the Elders' input seen and appreciated. Perhaps encourage the role of the Elders so they have more chance to participate/play an active role. Opportunities to openly talk about enterprise concerns and ideas are very important.</p>
<p>OWNERSHIP IN THE ENTERPRISE</p>	<p>Opportunity for future business enterprises to leave for future generations as a way of self-supporting themselves in the future.</p>	<p>People developing their own businesses themselves; creating more confidence in speaking/handling products and finances.</p>	<p>Continuation of the business into the future; total loss of existing knowledge in the community now – i.e., knowledge of business, skills, and experience - due to people moving away; we have to be careful about what we tell which people - so people don't steal our ideas and/or our customers and cut our business out; worry about other people coming into community and making changes to suit themselves, cutting us/our share out of the picture (incl. rent).</p>	<p>We don't tell people everything about our business - we keep most of the information to ourselves. We give our customers top quality service so they don't worry about looking elsewhere for products and we have to make our business grow really strong.</p>
<p>TRADITIONAL ECOLOGICAL KNOWLEDGE (TEK) INTERGENERATIONAL TRANSFER / CULTURAL MAINTENANCE AND STRENGTHENING</p>	<p>Elders having knowledge about bushfoods and plants and passing it on to others by doing things together; the knowledge of 'good food' / 'bad food' - (i.e., what not to eat and what can be eaten); education of children, the passing on of wisdom and knowledge; by sharing information we are revisiting not only cultural responsibilities, but also knowledge of plants, birds, and animals; memories from childhood; people travelling to traditional country, yarning - holistic experience /learning passed on orally.</p>	<p>Continued connection with the bush, traditional knowledge and culture.</p>	<p>Younger generation losing interest in our culture and future; loss of cultural knowledge that is dependent on continued connection with the bush (incl. concern that horticulture may cause people to lose their connection with the bush, by people staying in the community and not going out on bush trips); loss of Intellectual Property.</p>	<p>We have to support, encourage and learn our young people about our business - teach them about gardening and growing trees. Maybe give them incentives so they want to learn (e.g., the incentive of spending time with Elders).</p>

INTER-CULTURAL RESPECT AND RECOGNITION; CULTURAL PRIDE	Helping farmers and others to put back trees where needed - revegetation; people didn't know about us before - now they're asking for our help for revegetation; getting respect from people outside community, in towns; acknowledgement and appreciation of people and their skills; demand for the products and Aboriginal culture	Bring back respect and pride to us as a group of Aboriginal people; development of trademarks / logos	Loss of Intellectual Property.	IP protection through development of logos? - interest in learning more about logo design and use.
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2. HUMAN CAPITAL (HEALTH AND WELL-BEING)	Current effect of bushfoods industry involvement	Desired future effect	Frustrations, constraints or worries	Possible solutions
ACCESS TO INFORMATION, TECHNICAL SKILLS, TRAINING & EDUCATION (INCL. EQUALITY OF ACCESS)	TAFE courses on bushtucker gardening. Much help from key people (e.g., Phil Landless and Mike Quarmby). Learning to identify different species of plants (e.g., what plant suits different situations); getting more knowledge and understanding about what we're doing as time goes by, to pass on to others; people are always learning and passing on knowledge.		"The younger generation are losing interest and have no respect for Elders, other people, or themselves. They have 'no reason to live' and don't respect other people's possessions. They have no respect for 'Law' or 'Lore' ".	Increase local interest in the enterprises (e.g., through sharing more information).
EMPLOYMENT (SALARIED)	Not currently available.	Full-time /part-time salaries and/or contract work.	Lack of workers both due to and causing periodic lapses in enthusiasm and motivation (see below).	Utilise work for the dole scheme and correctional services to get more workers. Increase local interest (e.g., through sharing more information), to help attract workers.

HEALTH AND NUTRITION	Nutritional benefits of bushfoods from the active non-commercial wild harvest of bush vegetables and meats.			
WELL-BEING, PRIDE, AND MOTIVATION	Interest and pleasure gained from working in the horticulture business. An opportunity to do something different, (instead of farming and working yard gangs). A move away from injury/sickness benefits - the bushtucker garden initially gave back personal drive, provided an interest, and increased happiness - people were looking forward to harvesting, selling produce. "Set up garden with growing and selling trees, sharing vegies with the community, started feeling good - proud of what we achieved, knowing others may want to be involved." "Now we have people who want our plants we have a sense of pride wherever we go." Self-satisfaction; self-esteem; up-lifting; making your own money; confidence to know that the enterprise is economically viable; self-respect and respect for associates' and clients' views; self-pride and pride of family and others; a chance to educate the younger generation to follow a positive way of life; self-satisfaction and self-worth.	Self-supporting: financially independent of welfare and social security.	Long term motivation and enthusiasm varies according to external factors such as the number of workers and community support: "Lost some workers, found it hard to maintain garden - too much work; too few people. (This) started to get to me. Just did what we could. Felt down." "Get stressed out when hard work is put into plants to beautify surrounds and kids then pull them out and parents don't sort the kids out."	Things are starting to get back on track and people are feeling a lot better because the majority of people still support what we do - (we) feel a lot better.