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Aboriginal people, bush foods knowledge and products from central Australia: Ethical guidelines for commercial bush food research, industry and enterprises

Merne Altyerre-ipenhe (Food from the Creation time) Reference Group

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Introduction

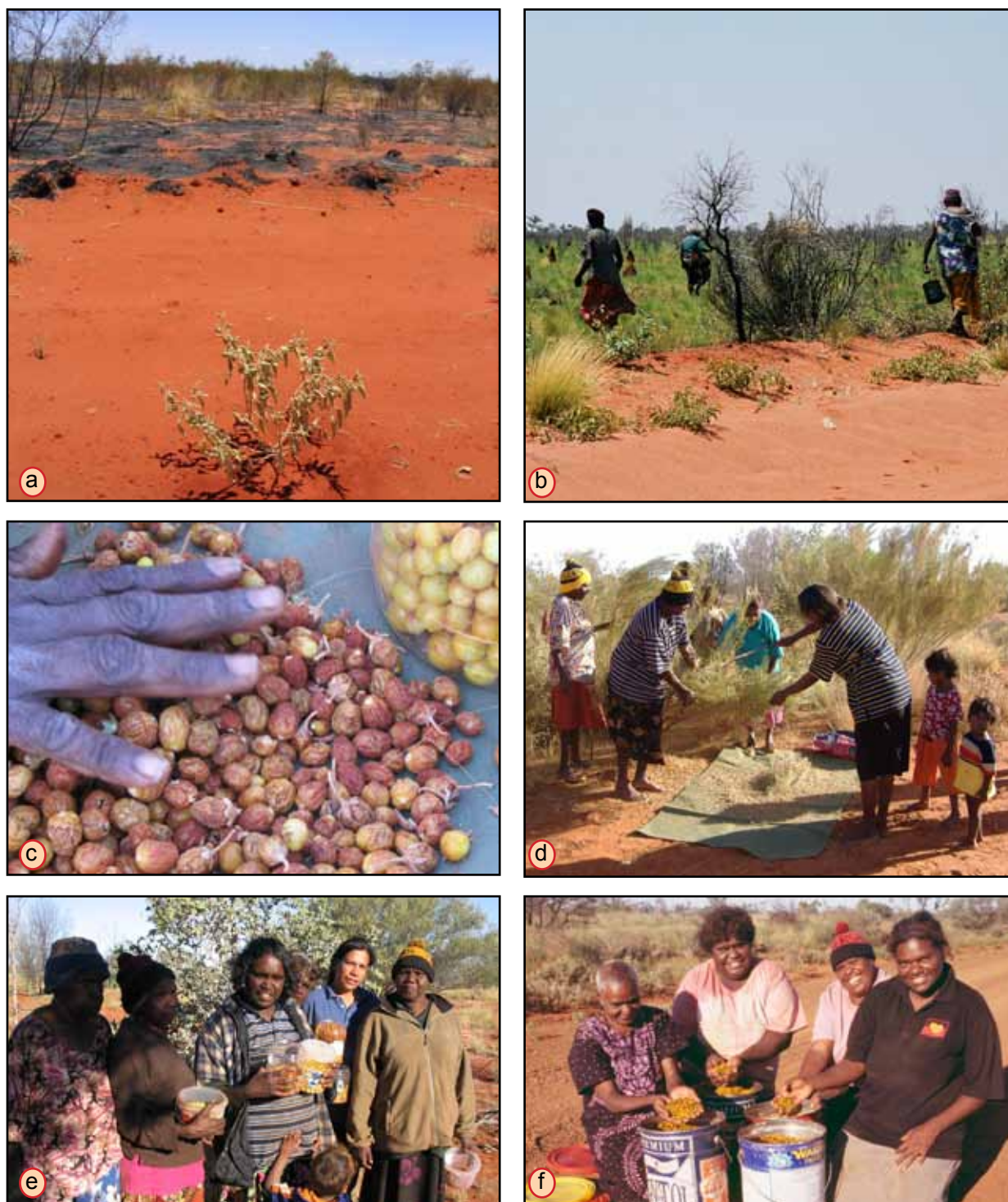


Photo 1: Aboriginal people work in multiple roles at stages essential to the bush foods industry

Many of these roles are 'hidden' and unrecognised by others in the industry. These roles include:

a) Fire management of country; b) Harvesters invest their labour and expertise to collect Akatyerr; c) Primary producers value add to products at sorting, cleaning and drying stages; d) Teaching younger generations of future harvesters; e) and f) Family-group aggregation of produce to supply in bulk.

Photos from the Alyawarr and Ahakeye Land Trusts.

Photos a–e © F Walsh; Photo f © G. O'Loughlin

PART 1: Background to guidelines for ethical practice

Guiding statement by Merne Altyerre-ipenhe (Food from the Creation time) Reference Group

Itele-arentye inteme merne aknganentye akerte tyerrtye apmere-altyenge, Arrernte, Pitjantjatjara, Warlpiri, Warumungu angkentye apmere ahelhe anteke nhenhe-arenye mape kenhe. Merne akwetethe arle uthnelte aneme community arente arlkentye-le itele arelte aneme akwerte.

Knowledge about bush foods belongs to Aboriginal people. It belongs to Arandic, Western Desert, Warlpiri, Warumungu and other groups. The knowledge belongs to that whole community of Aboriginal people.

The Merne Altyerre-ipenhe (Food from the Creation time) Reference Group (hereafter 'Reference Group') (Photo 2) comprises individuals from the major language groups across central Australia (Figure 1): MK Turner (Eastern Arrernte), Veronica Dobson (Eastern Arrernte), Lorna Wilson (Pitjantjatjara), Myra Ah Chee (Pitjantjatjara), Bess Price (Warlpiri), Gina Smith (Warumungu), Rayleen Brown (Ngangiwumirr/ Eastern Arrernte) and Maree Meredith (Central Land Council representative). A Central Land Council (CLC) representative was invited to be on the Reference Group as CLC is the peak statutory body for Aboriginal Land Trusts where harvesting takes place.

We are the members of the Merne Altyerre-ipenhe (Food from the Creation time) Reference Group based in Alice Springs, central Australia. We see ourselves as expressing the interests of many Aboriginal people on lands to which we are connected, although we are not elected representatives. We do not speak for Aboriginal people elsewhere in other parts of Australia.

The Australian bush foods industry is growing very quickly. We are concerned that many of the people involved know very little about custodial Aboriginal cultural rights, responsibilities and attachments to bush food plant species. Little is known of the complex knowledge systems Aboriginal people hold in relation to these bush foods, their harvest, preparation and trade. There has been little effective participation of the owners and custodians of the plants and knowledge which underpin the industry.

We have come together to develop a set of guidelines to help those people with a commercial interest in bush foods – in both the research and industry sectors. These guidelines have been developed within the social and cultural context of central Australia. They may be able to be used to assist other Aboriginal groups around Australia in the development of their own best practice guidelines. They may also be applicable to bush medicines and other products from Aboriginal people and their lands.



Photo 2: Members of the Merne Altyerre-ipenhe (Food from the Creation time) Reference Group

a) Rayleen Brown, Lorna Wilson, Bess Price, MK Turner, Veronica Dobson and Josie Douglas (researcher) attend an early Reference Group meeting at Charles Darwin University

b) right: Lorna Wilson, Myra Ah Chee, Bess Price, Maree Meredith and Veronica Dobson at the Central Land Council during a workshop to prepare the bush food guidelines

Photo a © M. Jones; Photo b © F. Walsh

Reference Group members are people with involvement in customary harvest of bush resources, bush product enterprises and/or with extensive traditional knowledge. They have strong links to people in remote settlements and are widely recognised for their expertise in articulating cultural traditions and priorities. Most members of the Reference Group are middle-aged and older women who are highly proficient in cross-cultural interactions. They have worked as educators, interpreters and/or in small enterprises.

Vision of the Reference Group for Bush foods research and development

We want to see Aboriginal people's rights and interests in bush food plants respected in bush food research, development and businesses. We want to see a bush foods industry grow to be equitable and fair. Aboriginal people must be offered and supported in opportunities to share in the benefits of the bush foods industry development. Researchers and industry participants need to reach out to Aboriginal people. This should be through stronger roles in governance, participation, employment and payments commensurate with the knowledge and skills Aboriginal people have and do contribute. Aboriginal participation in the industry should at least equal participation by non-Aboriginal people.

For bush foods, medicines and other produce and products we want to see:

- RECOGNITION of Aboriginal knowledge, skills and practice
- RESPECT for Aboriginal elders, workers and youth
- ROLES and RESPONSIBILITIES chosen by Aboriginal people
- RETURNS and BENEFITS to Aboriginal custodians and knowledge holders
- RESTORATION and CARE for Aboriginal lands, ecosystems and plants
- REPATRIATION of knowledge and support to intergenerational knowledge transfer

These principles underpin the content of this report and its guidelines.

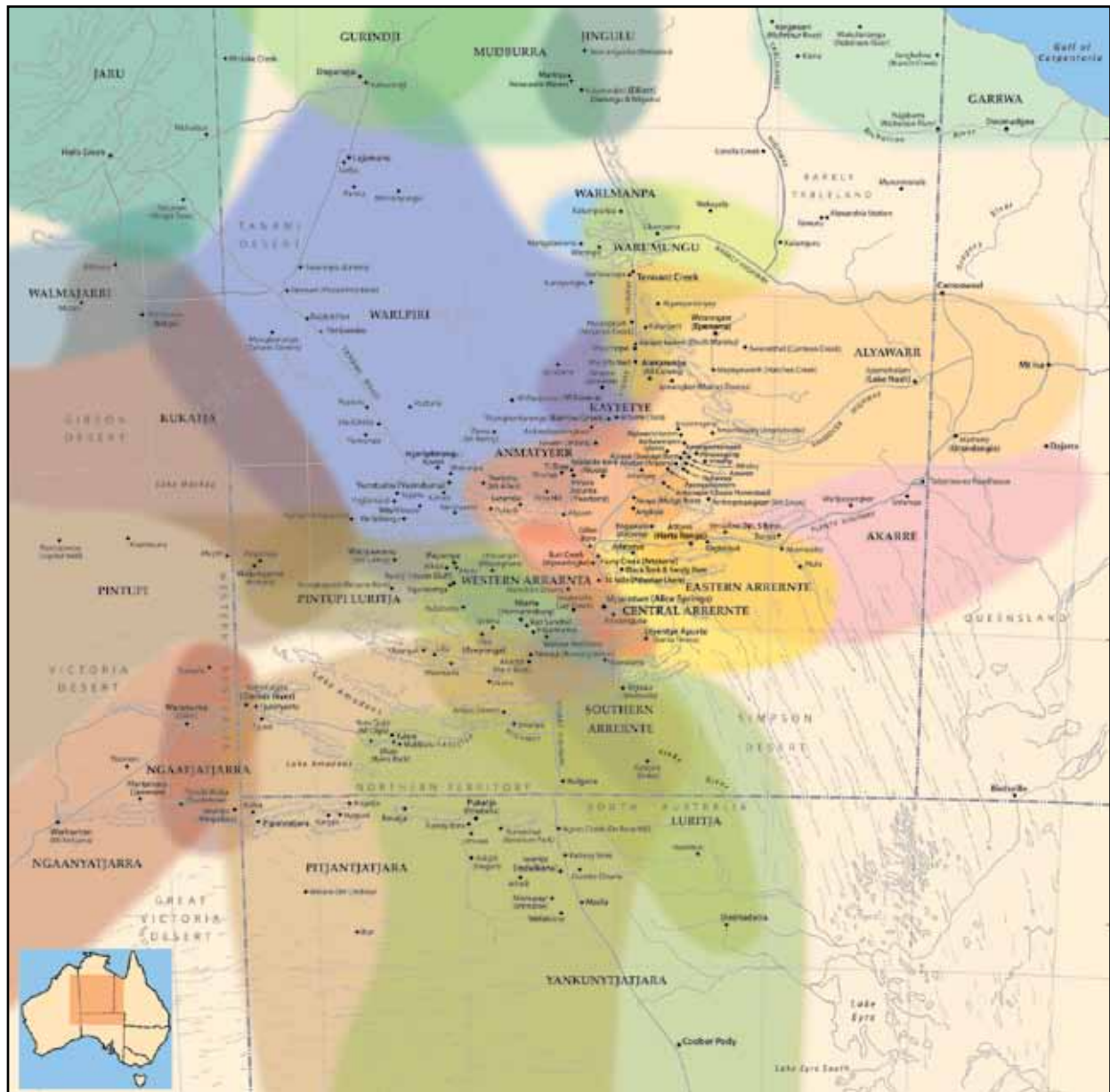


Figure 1: Central Australian Aboriginal languages and their current distribution

Reference Group members are from Eastern Arrernte, Central Arrernte, Pitjantjatjara, Warlpiri and Warumungu lands

Source: IAD Press 2002

Background from the Reference Group perspective

We have watched the bush foods industry grow rapidly. It is underpinned by Aboriginal Indigenous Ecological Knowledge (IEK).¹ It has been built from Aboriginal harvesters linking to traders. Much produce comes from Aboriginal lands. We have concerns about the limited opportunities available for Aboriginal people in employment, training and governance within the bush foods industry. Equally, we are also concerned about inadequate or inappropriate consultation with Aboriginal people by researchers and industry participants.

Our group wants to see Aboriginal people's knowledge, rights, interests and involvement properly acknowledged, respected and remunerated in bush food research, development and businesses. We would like to see the bush foods industry grow and expand in a way that is equitable, fair and inclusive of Aboriginal people, so that all central Australian Aboriginal people can share in the benefits of the bush foods industry.

Bush foods research and industry development needs to recognise that Aboriginal people see themselves as the sovereigns and custodians of plants (seeds, fruit or other plant materials) and of the traditional and more contemporary knowledge associated with these plant resources. Like other desert Aboriginal people, we have Laws derived from our ancestors and culture that guide our life. We want to see these respected equally alongside Australian Law (Figure 2). Intellectual property rights associated with this knowledge and its contribution to product development within the bush foods industry need to be dealt with as a matter of urgency, as do ethical and social equity issues relating to Aboriginal people's involvement within the bush foods industry.

These guidelines are important to us so that we can make sure that people who use and develop our bush foods respect and value our work, knowledge, culture and heritage. They offer a voluntary code of practice for researchers, traders, horticulturalists, processors, and others involved in each step of the bush foods value chain, and they provide a guide to an ethical way of working within the bush foods industry. The audiences for these guidelines are diverse. Certain guidelines are more relevant to some groups than other groups given their interests and needs. We would like to see greater specification of guidelines to different stakeholders in the future.

In developing these guidelines, we are respectful of the many women from different language groups and communities across desert Australia who actively harvest bush foods for family use and commercial sale. These women have no 'voice' in the national bush foods industry. They inspire and motivate us in our efforts.

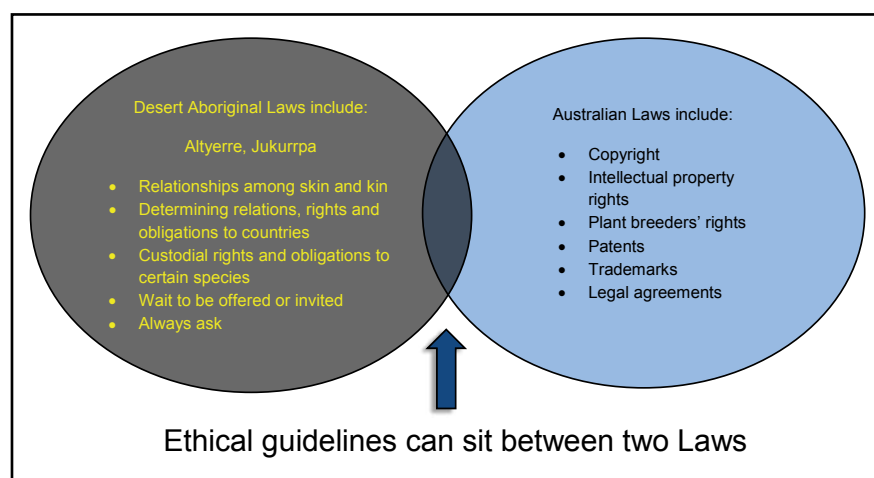


Figure 2: Desert Aboriginal Laws and Australian Laws

Both Laws should be respected equitably. Ethical guidelines and codes of practice can sit between these Laws.

¹ This report uses the term 'Indigenous Ecological Knowledge' (IEK) in keeping with national and international usages.

Rationale for guidelines within the wider bush foods industry

The Reference Group has developed this set of guidelines for those involved in the bush foods industry in order to address the following issues:

- Our concerns about the speed of expansion of the bush foods industry and the potential for Aboriginal people to be excluded or marginalised within the industry
- Desire to ensure that Aboriginal women are not marginalised from the various roles they fulfil. These include women who ‘wild harvest’ from managed natural plant communities, the people who hold strong traditional knowledge of plants and country and people who choose to work on or close to their custodial lands rather than live in towns and big settlements
- The paucity or inadequacy of applicable Australian laws or existing codes of practice to guide ethical engagement with Aboriginal people in the bush foods industry and to appropriately value and reward Aboriginal people’s knowledge used to source and develop bush food products
- Discrepancies between the financial or material returns for Aboriginal bush food harvesters and custodians compared to those for people involved in other parts of the bush foods industry value chain
- The low level of representation of Aboriginal people in governance roles within all spheres of the bush foods industry, combined with low levels of meaningful employment of Aboriginal people in all stages of the bush foods industry value chain
- Poor awareness of the role of Aboriginal harvesters, custodians and knowledge holders in the development of the bush foods industry by non-Aboriginal people involved in the industry as researchers, horticulturalists, traders, processors, business entrepreneurs and consumers
- Limited acknowledgement of Aboriginal knowledge input or harvest involvement and limited recognition of geographic sources of bush foods on product labelling
- A perceived shift in emphasis away from bush or wild harvest of plant resources to horticultural production of bush food plants which may further exclude Aboriginal women harvesters from involvement in the industry. However, certain Aboriginal people and organisations may choose to initiate horticulture enterprises; thereby they may own, control and receive the benefits accrued from production.

The bush foods industry is developing within the context of two very different value systems (Figure 2). These are derived from:

1. A hunter-gatherer-cultivator system with a collective, custodial relationship to land, resources and knowledge embedded within a customary law system that negotiates rights and responsibilities
2. A Western monetary-based system with prescribed ownership of property and knowledge resources and legal systems based on an individual’s or company’s property rights.

The ideal is to have an equal and fair contribution from both systems with overlap between them. It is within this overlap that ethical guidelines sit (Figure 2).

For many Aboriginal people, bush foods and the plants they come from are spiritually and culturally significant. From the late 1800s, Aboriginal individuals extended customary trade practices to non-Aboriginal people and traded certain bush resources for exchange items. In the 1970s, a cash-based trade in bush seeds developed. The different values in bush foods (monetary and non-monetary) have resulted in tensions between Aboriginal people who want to sell them and those who do not want to sell or think they should not be sold. For example, among eastern Anmatyerr people at scattered settlements around and east of Ti Tree in central Australia, there had been strong discussions and some disagreement between different people about the sale of large quantities of Akatyerr² (Desert raisin, *Solanum centrale*) and its export from their lands and family use (J Long Pwerreri 2007 pers. comm.). In contrast to the spiritual and cultural values Aboriginal people see as inherent in bush foods, most

² ‘Akatyerr’, the Arandic language term, is used in this report in accordance with the expressed preference by the Reference Group for referring to the plants by local language and common names rather than the commercial names such as ‘Bush tomato’ (see Part 3). Akatyerr is *Yakajirri* in Warlpiri and *Kampurarrpa* in Pitjantjatjara. The common name for Akatyerr is Desert raisin, and the Linnaean name is *Solanum centrale*.

non-Aboriginal people view bush foods simply as commodities that can be traded on weight basis with a dollar value in a profit-driven market place. Compared to the early nineteenth century, today Aboriginal people are much more aware of the potential for Aboriginal culture to be misappropriated. A difference in scale is also important; Aboriginal people now recognise that bush foods are trading internationally with a monetary currency rather than as small, local and regional trade based around social relationships.

Indigenous Ecological Knowledge (IEK) and traditional resources have been managed by Australian Aboriginal and Torres Strait Islander people and local communities for thousands of years (Keen 2004; Gerritsen 2008), using customary law and customary practices embedded within complex spiritual cosmologies (James 2006; Walsh 2008). Formal recognition of the important custodial role Aboriginal and Torres Strait Islander people have played in natural resource management has only recently started to happen, but we are still a long way from having formal guidelines in place that recognise, value and reward the contribution Aboriginal and Torres Strait Islander peoples' knowledge has played in the development of food resources or in the burgeoning global biopharmaceutical industry. By contrast, internationally there are some major examples that recognise the rights of sovereignty over food species held by Indigenous and local people and provide guidelines for the enhancement of those rights (Forum for Food Sovereignty 2007; Pimbert 2008).

The research undertaken in Australia into good practice or legal protection available to Aboriginal people about their rights, ownership and IEK related to bush foods or bush medicines is relatively recent. Important contributions are in several recent reviews (Smallacombe et al. 2006; Holcombe 2009; Janke 2009). A very brief introduction was given by Evans and Muir (2009). Janke (2009) gave the most detailed and comprehensive review of Western legal options, some of which relate to research and development, commercialisation from research and development, and/or market-based enterprise developments.

Individual organisations have developed their own protocols or guidelines in relation to IEK and Intellectual Property (for example Holcombe 2009; CLC 2005; DKCRC 2008). However, there are no nationally accepted industry guidelines or codes of conduct for researchers, entrepreneurs or organisations involved in the bush foods or bush harvest industry. A widely referred to and relevant Australian protocol is the Songman Protocol (Songman Circle 2004). This is a Western Australian-based National Aboriginal Corporation owned, operated, managed and controlled by Aboriginal people and involved in certifying bush-harvested Sandalwood (and other fragrant plants) to a cosmetic enterprise jointly managed by WA-based Mt Romance and Aveda (a US-based subsidiary of Estée Lauder). The underpinning belief is in

Active participation in supporting and facilitating equitable commercial partnerships between the Indigenous and business communities based on the sustainable use of natural resources and Indigenous cultural knowledge [to bring] positive change.

(Songman Circle 2004:2).

Certification of high-value products was a central platform of the Songman Protocol framework. Details of the basis for certification are not specified in the short Songman Circle booklet (2004). Its components do include the recognition of two parallel law systems, the precedence of customary rights and traditional law, confidentiality, and planning for environmental and cultural impacts in commercial developments.

From 2004 to 2010 the Desert Knowledge CRC has funded and directed research into three areas relevant to these guidelines on bush foods and produce. One area has been the development of guidelines for research and development with Aboriginal people and/or the use of Aboriginal knowledge. Another has been in relation to intended improvements in Aboriginal livelihoods and income from bush produce trade. The third area has related to investigations into plant properties for potential commercial development (Ryder & Walsh et al. 2009).

An initial protocol guide (DKCRC 2003) was followed by reports on traditional knowledge and ethics; confidentiality; free, prior informed consent; and benefit sharing (Smallacombe et al. 2006). The latter identified step-wise research practices from research scoping, research pay rates, report back and equitable benefit sharing to Aboriginal people (DKCRC 2008). These principles and practices were re-interpreted in a plain English guide intended for Aboriginal community members (Orr et al. 2009). These Desert Knowledge reports drew upon earlier protocols developed through AIATSIS (2000), NHMRC (1991) and CLC (2005).

Desert Knowledge CRC also produced a series of reports related to the bush produce economic value chain. This report series commenced with a review of the potential opportunities for Aboriginal people in bush resource enterprises in central Australia (Morse 2005). The review canvassed potential monetary and non-monetary benefits to Aboriginal people and gave a detailed assessment of the commercial potential of plant species for multiple purposes. Subsequently, the first stage results from a core project research into Sustainable bush produce systems was reported by Ryder and Walsh et al. (2009). Findings were summarised in relation to the exchanges of wild harvested produce and dollars per kilo payments between Aboriginal harvesters and traders (Walsh & Douglas 2009), horticultural production trials (Ryder 2009), genetics and plant improvement (Waycott et al. 2009), steroidal glycoalkaloid content (Ryder & O'Hanlon et al. 2009) and post-harvest storage techniques (De Sousa Majer et al. 2009). The latter four references specifically related to Akatyerr. Further studies were conducted in an economic value chain analysis of bush tomato and wattle seed products (Bryceson 2008), a preliminary survey of interest among select Aboriginal people involved in bush produce harvest in a desert-wide association structure (Cleary et al. 2009) and a review of potential cooperative structures (Cleary 2009). Additionally, a tour by six Aboriginal women involved in the harvest, growth or catering of businesses that operated at points in the economic value chain was reported (Vincent 2009).

A subproject of the Bush products project focused on Aboriginal harvesters, knowledge experts and research governance. Aboriginal knowledge and practice related to Akatyerr was translated in an illustrated report by Alyawarr speakers from Ampilawatja et al. (2009). A high-level conceptual framework of the positioning of Akatyerr and other plants within an Arrernte ecological knowledge system was portrayed in Dobson et al. (2008; 2009) and synthesised in Walsh et al. (in press). The processes of research governance by an Aboriginal group was published by Douglas and Walsh (2008).

In concurrent smaller projects, the Desert Knowledge CRC invested in research into database options for the storage of Aboriginal knowledge associated with plants (Evans 2009) and briefly overviewed intellectual property options associated with plant knowledge (Evans & Muir 2009). The latter gave one paragraph summaries of patents, trademarks, geographical indicators, plant breeders' rights, registries and contract law. This was superseded by detailed investigation of these options by Holcombe (2009) and Janke (2009) with substantial input from Merne Altyerre-ipenhe, Douglas and Walsh. On a separate path, lessons applicable to desert species, but derived from *Terminalia ferdinandi* in the Top End of the NT, were synthesised (Cunningham et al. 2008). This is a tropical commercial fruit species that has local value and potential but where germplasm has already been exported, thus reducing future Australian and local opportunities. Practical steps to improve the viability of bush product enterprises were recommended in Cunningham et al. (2009). The Desert Knowledge CRC was also a contributor to a research project that recommended fair-trade-type certification for bush food products (Palombi 2009).

The overall objectives of this Desert Knowledge CRC research have been to improve livelihood and particularly economic opportunities for desert people, especially Aboriginal people. However, many complex challenges particular to the commercialisation of Aboriginal knowledge and products remain to be addressed. These have manifested in tensions and inconsistencies related to the commercialisation of Aboriginal plant-related knowledge, but a synthesis of these issues remains to be done.

There are several major national codes of conduct associated with the Aboriginal arts industry (see Commonwealth of Australia 2007; Mellor & Janke 2001). The Aboriginal arts industry also has a certification and trademark system that aims to ensure authenticity of product for the purchaser, and help establish fair economic return for the Aboriginal artists. While the bush foods industry is orders of magnitude smaller in economic value than the arts industry (less than 3% in terms of dollar value), there may be lessons that can be learned from the Aboriginal arts industry.³

The guidelines presented in this document are intended to give due recognition, acknowledgment and respect to the role Aboriginal people and their knowledge play in the bush foods industry as well as ensuring that there are ongoing financial and material benefits to Aboriginal communities for their continued involvement in the bush product industry.

These guidelines also aim to:

1. recognise Aboriginal peoples' rights and interests relating to seeds, fruits and plants and their associated knowledge, traditions and practices
2. encourage equitable opportunities for negotiating commercial outcomes and benefit sharing in the production of bush foods
3. guide the proper management of intellectual property relating to Aboriginal knowledge of bush foods management, harvest, preparation and trade.

The Reference Group would like to see the development of an industry code of conduct, developed from these initial guidelines, where business and industry operate within an ethical and socially responsible framework.

³ The estimated size of the native food market in Australia is \$10–15 million of retail products (Armstrong Muller Consulting 2008); however, the small proportion that is actually bush-harvested foods is unidentified in this report. Another quantitative comparison of art industry to bush produce value is available from Yuendumu. In 2005, Warlukurlangu Arts sold approximately \$1 million of artworks while Yuendumu Mining company sold about \$15,000 of seed and fruits (F Baarda pers. comm. 2006).



Photo 3: Each step in the economic value chain, and its parallel research, increases the geographic distance from harvesters and their priorities; guidelines about ethical and social responsibilities are applicable at each of these steps

- a) harvesters and researchers b) researcher workshops c-e) horticultural and genetics research
f) pest analysis g) sales assessments

Guidelines about ethical and social responsibilities to Aboriginal people, their plants and lands are applicable at each of these stages.

Photo a © Kitty Wolfe; Photos b and c © F Walsh; Photos d and e © Alice Springs Desert Park; Photo f from de Sousa et al. 2009; Photo g © F Walsh

Overview of commercial bush foods harvest in central Australia

The customary harvest of bush foods in desert Australia has a long history going back thousands of years. Bush foods still maintain an important place in Aboriginal people's diets and cultural practices (Turner 2005a). Bush food collection brings families and communities together and provides opportunities for keeping IEK strong. Aboriginal people today no longer rely solely on bush foods, as they eat mainly non-traditional foods that come from shops. However, many bush foods are still popular, commonly eaten and considered to be good for one's health and wellbeing. Cultural knowledge about bush foods is highly valued by both Aboriginal and non-Aboriginal people (Latz 1995). Many Aboriginal people consider such knowledge important and believe that it needs to be actively maintained (Walsh & Mitchell 2002; Laramba Women & Green 2003).

Non-Aboriginal or Western interest in bush foods is growing, and economic and commodity markets for bush food products are expanding (NTG 2001; Morse 2005; Whitehead et al. 2006). In central Australia, the commercial harvest of bush foods from natural plant populations has a history of about thirty years (Walsh & Douglas 2009). It was initiated by Jack Cook (an Anmatyerr man), then followed by local trader Rod Horner in conjunction with Warlpiri and Anmatyerr harvesters (Horner 2001). There was Aboriginal interest in the local level commercial harvest of bush foods and relationships with local traders well before the widespread market interest that exists now.

Akatyerr and different Acacias (in Arandic languages: *Awenh*, *Kalkarti*, *Arteye*, *Arlep*; respectively *A. sericophylla*, *A. colei*; *A. aneura*, *A. victoriae*) and other species are the main bush foods commercially harvested from natural populations by central Australian Aboriginal harvesters (Walsh & Douglas 2009). Despite the significant roles of Aboriginal people in commercial bush foods harvest in central Australia (Figure 4), there have been few other opportunities for desert Aboriginal people to have direct input into the burgeoning national bush foods industry.

The bush foods industry is predominantly made up of non-Aboriginal growers, traders, processors, business people, researchers and other people who contribute further along the value chain. These people often live outside of desert regions (Figure 5). Generally, they have limited knowledge, thus appreciation, of the complex cultural frameworks or knowledge systems held by Aboriginal people in relation to specific bush food species and the non-monetary values inherent in bush foods for Aboriginal people.

In central Australia, an estimated 300–500 women, mainly middle-aged to senior women, were involved in commercial bush food harvest between 2000 and 2006 (Walsh & Douglas 2009). Many more people, including men and children, support harvest trips by driving, helping with picking or cleaning seeds and fruits, undertaking patch burning to promote plant growth, or by providing company. Bush harvest work is done when bush foods are in season and this is typically for short periods of time each year. In some years, rainfall and plant production is too low for there to be any commercial harvest at all.

The majority of Akatyerr and Acacia seeds that are supplied to the national bush foods industry come from central Australia (J Robins pers. comm. 2007). Aboriginal women harvest these bush foods across a wide area, spanning more than eight language groups and more than 20 settlements, as in Figure 3 and Walsh and Douglas (2009). Aboriginal women and children manually clean seeds and fruits (sort, remove calyxes or stems, thresh, winnow, yandy, etc.) in the field, using techniques and methods that draw on their IEK. The quality of hand-picked, bush-harvested produce is extremely high. It has been observed to be of higher quality than that picked by non-Aboriginal people or from mechanised harvest due to the skill and dexterity of Aboriginal pickers, particularly in separating the fruit or seed from the vegetative parts (R Brown, caterer, pers. comm.).

In central Australia, most harvesting of bush foods is done on Aboriginal freehold lands that are held by trust groups under the *Aboriginal Land Rights (Northern Territory) Act 1976*. These lands are usually those close to or within a day's drive of the settlement where harvesters live.

Underpinning Aboriginal Land Trusts is the customary tenure system (Figure 4) which determines who has the right to harvest bush food species from specific areas or near specific sites and burnt grounds. This tenure system is highly complex and dynamic. There has been substantial anthropological investigation into the tenure systems for land areas, Dreaming tracks and sites (e.g. Toohey 1980; FCA 1999). However, there is less documentation for tenure associated with plant resources. This system still plays an important role in guiding bush harvesting activity in central Australia. Aboriginal harvesters and cultural experts know and generally respect the countries (lands) of other Aboriginal people. They gather plants from lands for which they have a right to harvest or they ask permission to harvest from the custodians of those land areas (J Long Pwerreri and C Long Kemarr, pers. comm. October 2005, Ti Tree). Research into the adaptation of customary systems in relation to commercial trade is needed.

Collecting bush foods is something that people enjoy doing and is part of a strong cultural tradition, not something new that has had to be learned or imposed on people by outsiders. Benefits to Aboriginal people from participation in the bush foods industry currently consist of non-monetary benefits people gain from collecting bush foods on their traditional lands and the monetary benefit of being paid cash in hand per kilo for collecting raw materials (for supply to traders and processors) (Walsh & Douglas 2009). Non-monetary benefits include maintenance of cultural traditions and intergenerational transfer of traditional knowledge, and the health and wellbeing benefits derived from being out on country and eating nutritionally rich bush foods (Altman 2005; Rowley et al. 2008).

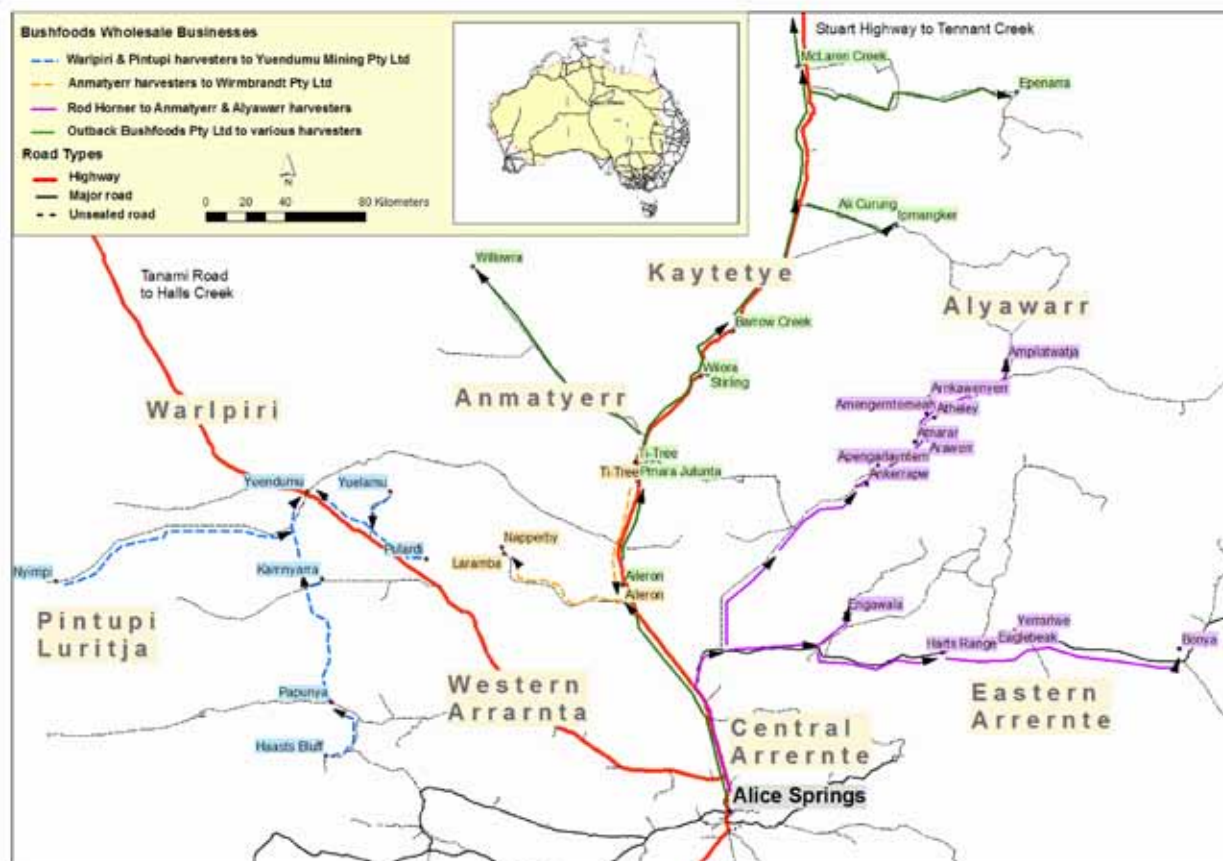


Figure 3: Central Australian bush foods harvesters' language groups

In central Australia, Aboriginal harvesters from more than eight language groups live in scattered settlements distant from Alice Springs. Four trading or wholesale businesses travel to buy from them or receive produce delivered to them (from Walsh & Douglas 2009).

Desert Aboriginal people's relationship to plants is defined by the interconnectedness of People – Land – Dreaming

Increasingly, governments, and the scientific and industrial sectors are interested in acquiring access to biological resources for potential commercial applications or research into commercialisation. The ecological knowledge held by Aboriginal people is crucial to the identification of potential species uses and to the locations of plant populations with particular characteristics and properties.

To say that indigenous peoples have contributed significantly to the present body of knowledge possessed by scientists, such as ethnobotanists, ethnopharmacologists, and by agriculturists, foresters, and food technologists, is an understatement. The development of these indigenous biotechnologies is still continuing. However, the recent moves of biotechnology and agribusiness corporations to appropriate what we have and know will influence whether indigenous knowledge and technologies will continue to flourish.

(Tauli-Corpuz 2001)

Aboriginal knowledge underpins much of the current bush foods industry (Figure 4), and it is doubtful that any industry would exist at all in its absence (Morse 2005). The custodianship and care of bush food species has contributed to their partial domestication. Aboriginal-owned and -managed lands provide the major land areas from where productive plants have been sourced in recent years (Figure 4). In the light of this, it is reasonable for Aboriginal people to expect to benefit from commercialisation of particular bush food species to a greater extent than has happened to date.

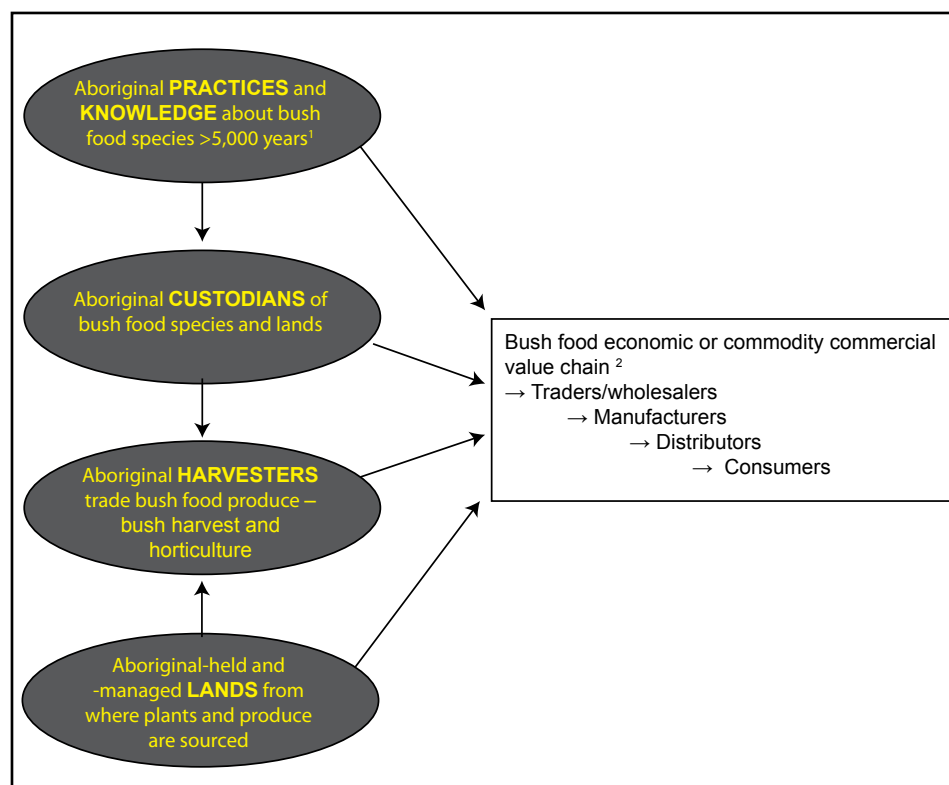


Figure 4: Major Aboriginal inputs upon which the Australian bush foods industry is founded – Aboriginal practices and knowledge, custodians, lands and the work of harvesters

1 This sphere is expanded in Figure 6

2 This is expanded in Figure 5

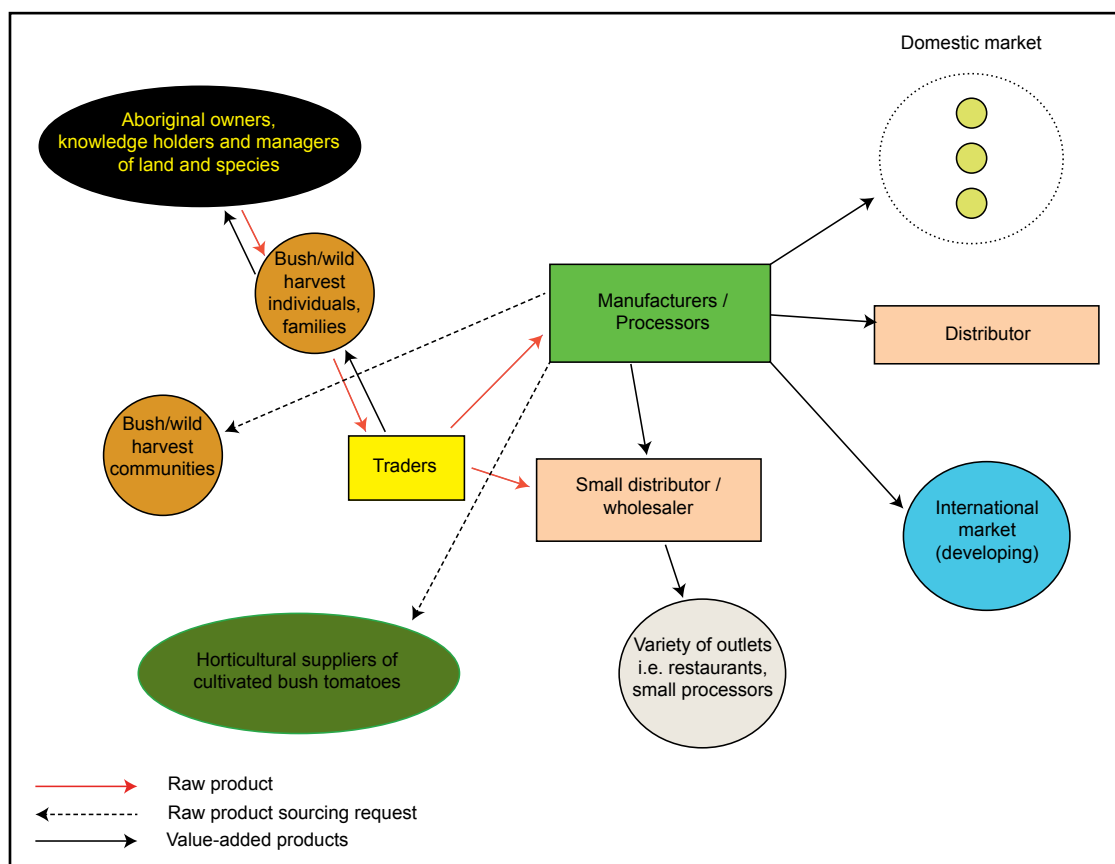


Figure 5: Aboriginal knowledge, custodians and lands, and Aboriginal harvesters are the foundation of conventional bush food supply and economic value chain, which underpins the need for ethical guidelines

Source: Adapted from Bryceson 2008.

At the heart of Aboriginal relationship to plants is a view of the interconnectedness of People, Land and Altyerre (or Dreaming; Jukurrpa in Warlpiri; Tjukurrpa in Pitjantjatjara). This is similar to the concept of elements and their interconnections visually presented by Arrernte woman MK Turner (Turner 2005b), with some adaptation in Figure 6 by the Reference Group (Dobson et al. 2008; Dobson et al. 2009) and convergently interpreted from Martu people in Walsh (2009). Independently, other templates describing the interrelation between Land – Law – Language – Ceremony – Kin have been published by Warlpiri men and colleagues (Pawu-Kurlpurlurnu et al. 2008). The elements within these templates are flexible, mobile and adaptable in interpretation by Aboriginal people according to the place and context of use. In Figure 4 we have centred plants within this template. When bush foods are isolated from their connection to people, the land and Altyerre, the plants lose their significance and values; furthermore, this loss weakens the other parts of the bio-cultural system to which they are connected (Turner et al. 2008).

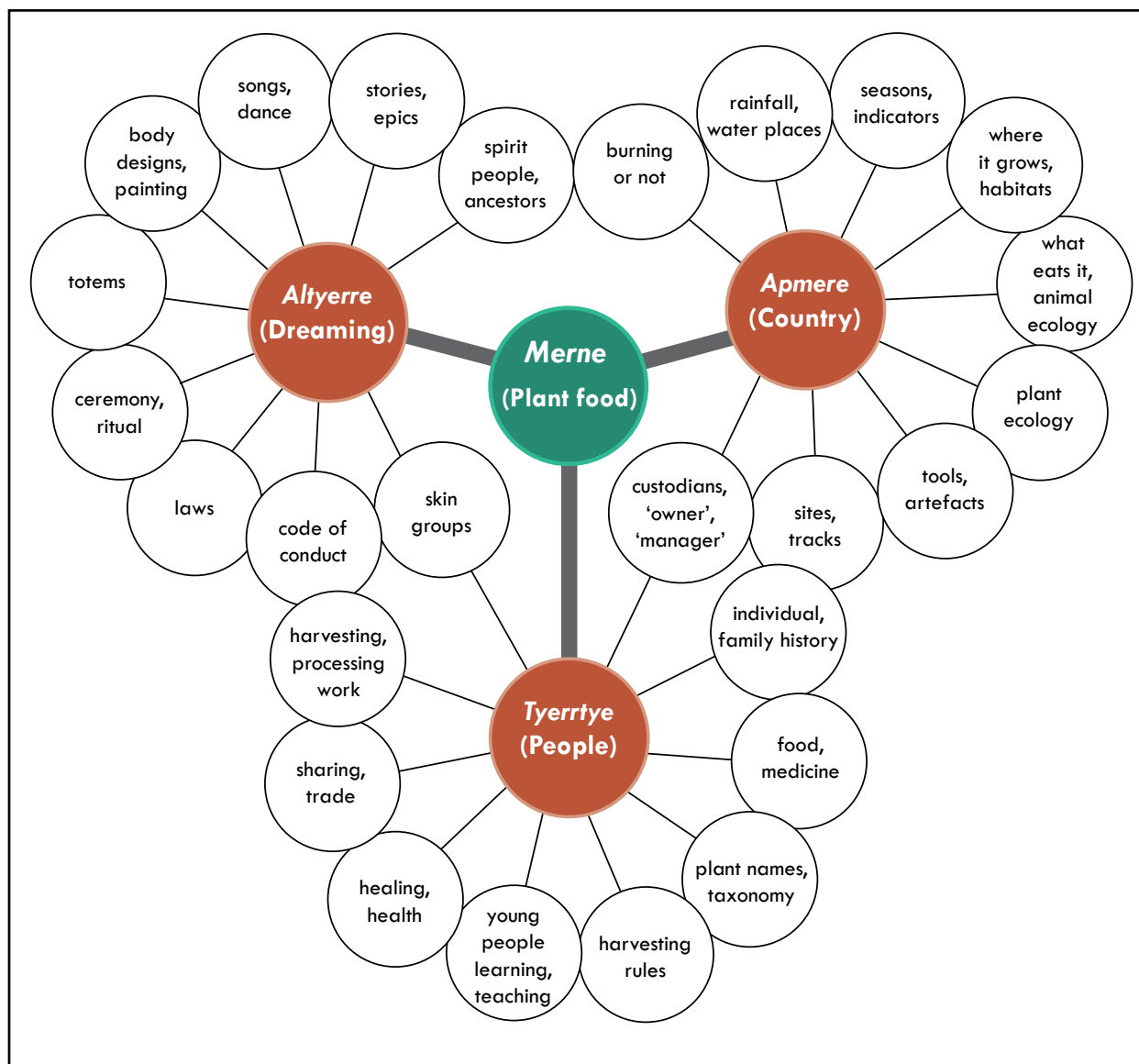


Figure 6: Interpretation of the Arandic concept of 'Anpernrrentye'

Anpernrrentye shows the inter-relations between bush food plants and other domains of desert Aboriginal life with their many interconnected elements. There are many different non-monetary values embedded within plant species. For example, a species is valued because it is symbolic of an ancestral character who formed important sacred sites. This concept is also applicable to other desert Aboriginal groups.

Important bush food plants all have an Altyerre (Figure 6). There are Laws associated with them and about them that are coded in epics, dramas and stories. Some of these stories are publicly accessible, while others are restricted to certain people because of their sensitive or dangerous content. In some epics, the plant species plays a principal role in these, while in other dramas they play a secondary or ancillary role. For instance, one story tells of challenges between a Bush turkey and an Emu ancestor over Yakajirri (Warlukurlangu Artists 1992). This drama reminds listeners that Bush turkey and Emu feed upon this species when it is abundant; it describes preparation methods for the plant species; it implies that greed can cause arguments that lead to people hurting each other.

Specific plants were vital in connecting people from one country to another – for example Pitjantjatjara people were linked to Arrernte people through the route or travel of a certain Tjukurrpa/Altyerre associated with Kampurrrpa/Akatyerr (L. Wilson pers. comm.). The name for one highly culturally

sensitive species that also has high commercial value is sometimes a synonym for women's ceremony – it is highly important within certain women's realms. The body designs with which women are painted for specific ceremonies also represent particular plant species.

There are sacred sites associated with certain plant species. For example, outcrops of rounded boulders near Yuendumu are, in Warlpiri eyes, the round balls of a species which in the Western world has high commercial value. These and similar outcrops representing this species that occur across its botanical range are all important cultural sites, and some are registered sacred sites. The Altyerre tracks or songlines between these places link them from one country to another and from one language group to another.

Within Aboriginal knowledge systems, specific plants play a central role as 'relations' to humans through their membership skin groups and roles in Altyerre epics and stories. These connections contribute to the spiritual dimensions with which plants are associated. One species can be a 'sister' to a human individual who then paints themselves with designs that represent that species. These same people have the right to paint that species or give other people permission to do so.

Aboriginal people hold complex ecological knowledge about bush food species

Aboriginal harvesters and senior Aboriginal people retain a detailed and sophisticated IEK system within which plant resource species are embedded. The many domains of this knowledge are interpreted in Figure 4. Much of this knowledge is further reinforced within Aboriginal language systems:

The names of things signify a complex relationship between living people, their country and their forebears, many of whom bore the names of particular plants and animals. Respect for Aboriginal law and a sophisticated use of the Anmatyerr language means knowing the detailed names for plants and for particular parts of plants – seeds, roots, flowers and leaves. Some plants have a different name for ripe fruits, unripe fruits and for fruits that have fallen to the ground. Using this specialized vocabulary shows respect for the custodians of the Dreamings manifest in the plants themselves. (Laramba Women & Green 2003:5)

Some of these knowledge domains have parallels in Western scientific knowledge systems, for example, with specialised taxonomies. Table 1 compares the elements of Aboriginal knowledge about plant species that have some equivalence to scientific fields of research.

Table 1: Elements of Aboriginal knowledge related to bush food species and with scientific research subject

Aboriginal knowledge elements	Scientific knowledge equivalents
• identification of food species from among 100s of plant species in an area	• species inventory and survey, surveys of domestication potential
• naming and classification of different bush food species	• taxonomy, breeding systems
• species' habitat associations	• population dynamics, yield/area
• species' seasonal availability	• phenological studies
• ecological requirements e.g. pollination, seed vectors	• ecological process research
• management of bush food species	• in situ management, production systems
• burning practices and species burn responses	• fire ecology
• selective breeding, translocation	• domestication
• harvest methods	• harvest methods
• processing and preparation techniques	• detoxification methods, post-harvest handling
• flavour and taste descriptors	• taste testing, active constituent, nutritional research
• cooking techniques	• culinary experimentation
• species food complementarity	• dietary balance
• distribution between people	• consumer demand

These elements have been ordered to align with stages from the plant production to harvest and final use.

Table 1 identifies the many scientific fields of research to which Aboriginal knowledge is relevant and with which scientific knowledge may be compared and contrasted. It is not implied that scientists should consider the extraction of this knowledge for their own purposes. Instead, Table 1 shows subjects of potentially mutual interest from which collaborative studies may develop.

There are other elements of Aboriginal views of plants that do not have clear parallels with Western scientific perspectives on plant species (Table 2). These elements are especially those integrated within social and land-based systems. Table 2 identifies those elements and their weak or absent equivalence to elements within a scientific knowledge system about plant species.

Table 2: Elements of Aboriginal knowledge relating to bush food species but without strong scientific equivalents

Aboriginal knowledge elements with no or lesser scientific knowledge equivalents	Scientific knowledge equivalents
• taxonomies for species varieties and regional differences	weak
• skin groups	none
• harvest method protocols	weak
• Altyerre Laws	weak
• songlines or travelling tracks	none
• ceremonial rituals	weak
• totemic associations	none
• body design paintings	weak
• songs, dance, performance	weak
• epics and sagas	weak
• ancestral characters	none

Table 2 identifies the unique elements of Aboriginal knowledge to which there are not strong scientific equivalents. These elements indicate the complex associations between Aboriginal people and their plants which are unfamiliar to many horticulturalists and others involved in commercial species development. The high cultural significance of these elements underpins the sensitivity that Aboriginal custodians feel for their plant species.

Over generations, Aboriginal people have selected hundreds of species that are edible from among thousands of native plant species (see Gerritsen 2008). Specific knowledge enables a harvester to distinguish, for example, an edible species of *Solanum* from a closely related and similar-looking toxic species. It also informs them of the habitats and seasons in which a species can be found and is productive, and of management strategies needed to promote productivity of favoured bush food species. This knowledge is refined from broad geographic regions to the local scale around settlements. Knowledge of techniques to harvest, prepare, and store plant resources so they are palatable has been developed and refined over thousands of years.

Customary knowledge is shared among families and communities and is passed on to the next generation through oral traditions and experiential learning. There are customary laws that govern who can own and use specific knowledge. The collective nature of ownership of this IEK does not imply that all knowledge is held by all people, or that this knowledge is part of the public domain. Use of this knowledge by outsiders needs to be negotiated with the appropriate knowledge holders.

The content of customary knowledge is specific to person, place and time, and is often centred on the natural, social and spiritual resources needed for desert survival. Little of this knowledge has been written down, thus it is often overlooked or generally poorly understood by non-Aboriginal people. Some books recount some of the publicly accessible Aboriginal knowledge of plants used for bush food, medicine and for other utilitarian or ceremonial purposes (Bryce 1992; Latz 1995; Laramba Women & Green 2003; Turner 2005a). However, these texts give only a very small insight into the complex cultural and spiritual place plants have in Aboriginal society and of the intricate knowledge Aboriginal people hold in relation to the properties, ecology and management needs of specific plant species.

Custodial Aboriginal ‘ownership’ of plants and land

As part of the complex cultural and spiritual systems underpinning Aboriginal society, there are Aboriginal custodians for particular culturally important plant species. There is no consistent English translation of Aboriginal roles and responsibilities in relation to land and its resources. However, terms such as ‘traditional owners’, ‘custodians’ or ‘native title holders’ have been used in different cultural and/or legal contexts such as the *Aboriginal Land Rights (Northern Territory) Act 1976* and the *Native Title Act 1993 (Cth)*. Custodians are the individuals and groups who are related in various ways to the Dreaming (Altyerre, Jukurrpa) for those species and the lands. Custodians are scattered widely across the natural distribution of a particular plant species. Internationally, the multiple associations that Indigenous people hold in relation to plants is termed the ‘bundle of rights’ (R Quiggin pers. comm. 2007).

Australian Aboriginal custodians are determined in multiple ways such as by skin classification, totemic inheritance and birth totems. Important bush food plants also have skin names. In some central Australian Aboriginal countries (or language regions), there were both kirda (commonly translated as ‘owners’ of the land) or kurdungurlu (‘managers’ of the land) for the plant species (FCA 1999). In customary practices, these people in partnership had the right to make decisions associated with these plants and were responsible for the actions that maintained them. It is these individuals whom senior

Reference Group members have said need to be consulted in relation to the commercial development of any specific plant species. The people who must be consulted vary from species to species, and are different across land areas.

It is important to understand the complexity of custodial ownership, rights and responsibilities for species/plants. There are multiple groups who have rights defined by multiple processes – custodians of plant Dreamings that are specific to a particular country, and custodians of the land on which the plant grows. For example, Akatyerr is extensively distributed over a distance of approximately 2,500 km from the western Great Sandy Desert to the Simpson Desert; consequently, hundreds of people are potentially affiliated with it. This complexity needs to be understood by external agents or parties who seek to negotiate with collective Aboriginal entities. It is a legal responsibility of Land Councils to identify traditional owners and consult with them about proposals related to the use of land trust areas and their resources.

Custodians have local protocols that guide their interactions with plants and their custodial responsibilities. For example, customary protocols determine the proper way to pick bush foods, how to approach plants respectfully, as well as controlling how much is harvested and preventing damage to plants when harvesting. There are some species that are so culturally powerful that they can only be picked by certain people, and other species that cannot be sold, for example, *Ahakey* (*Psydrax* (formerly *Canthium*) *attenuatum* – Native currant). Within traditional Aboriginal society there was retribution or punishment for the inappropriate harvest or use of culturally powerful species, or for other transgressions associated with specific plant species.

Because customary protocols were communicated orally and by practice, few have been written down. The Reference Group would like to see customary protocols recognised, respected and built upon in all stages of the bush foods industry. The guidelines in this document are intended to guide industry members about how to recognise and respect these protocols.

Aboriginal rights to biodiversity, plants and ecological knowledge within national and international laws and conventions

The most substantial review of Northern Territory, national and international options in respect to Aboriginal intellectual property and natural resources has been done by Janke (2009). It was part of a wider study commissioned by the Natural Resources Management Board of the Northern Territory (also see Davis 2009; Holcombe 2009). Aboriginal knowledge associated with plant species and the potential commercialisation of that knowledge through research and development, horticultural trials and domestication was also addressed by Janke (2009). The report is essential reading. Our report is mainly about ethical and moral guidelines; here it gives only a brief summary of legal instruments and conventions (and see Table 3).

In Australia, formal intellectual property laws offer limited avenues for protection of IEK, Aboriginal or Torres Strait Islander customary laws or custodial rights to plants (such as The Copyright Act 1968, The Trade Marks Act 1995, Patents Act 1990 and Patents Regulations 1991, and the Plant Breeder's Rights Act 1994). This is because in most cases these laws have no provisions to accommodate Aboriginal or Torres Strait Islander ownership and/or collective ownership of knowledge or resources (Janke 2009). There is a cautionary example in attempted patents derived from Smokebush (*Conospermum* species). This species was used in traditional healing practices by Aboriginal people in Western Australia. An eventual agreement between the Western Australia Government and an American company ensured potential royalty payments to the state but there were no provisions for Aboriginal groups to benefit

(Janke 2009). We have been advised that because each law has weaknesses in relation to Aboriginal knowledge protection, it is recommended that the laws need to be applied as packages at different stages along the economic value chain and/or at different stages of research (Figures 7 and 8). This advice has come from lawyers Robynne Quiggin and Terri Janke (pers. comm. 2007 and 2008).

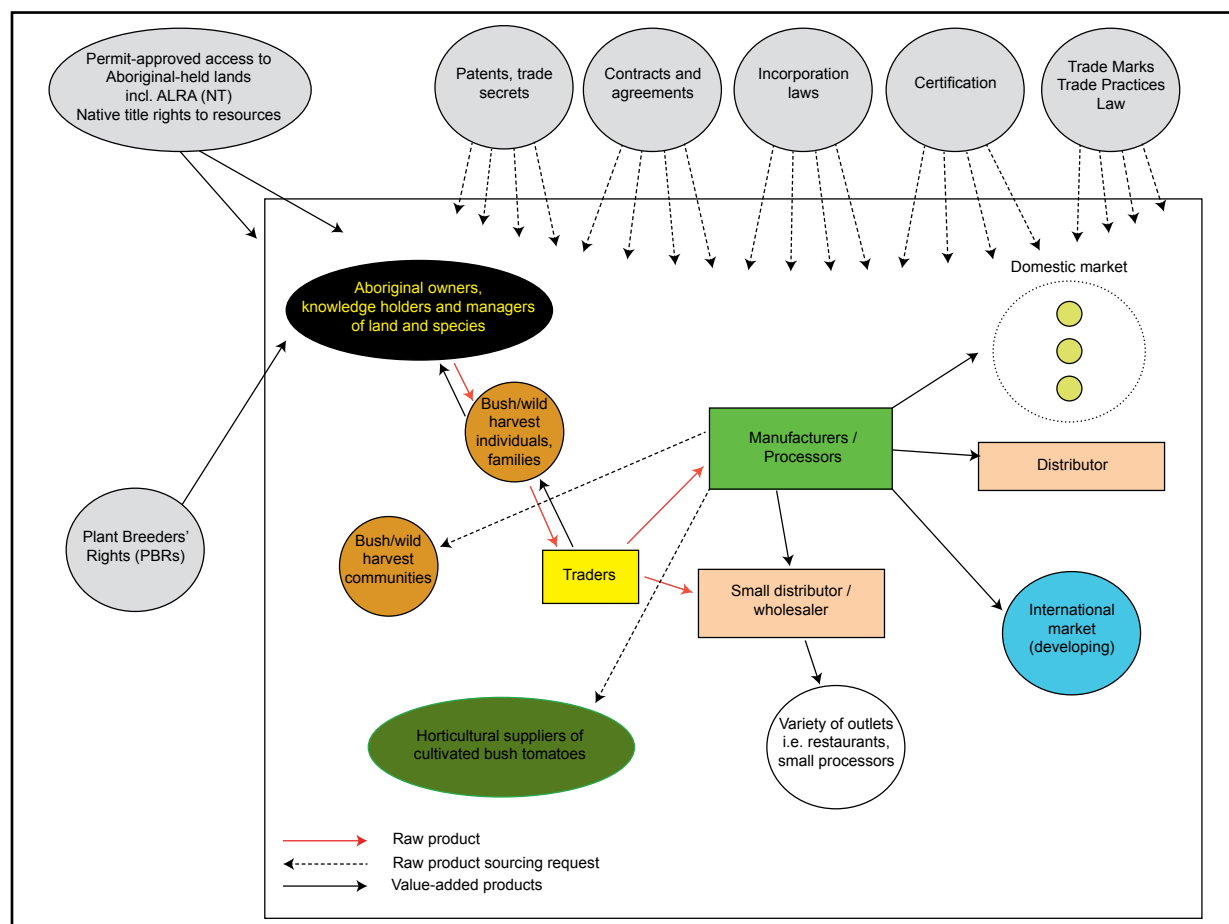


Figure 7: A 'package approach' to application of Australian laws along the bush foods supply chain

This approach is recommended to improve benefits to Aboriginal people. Different laws are more relevant at different stages.

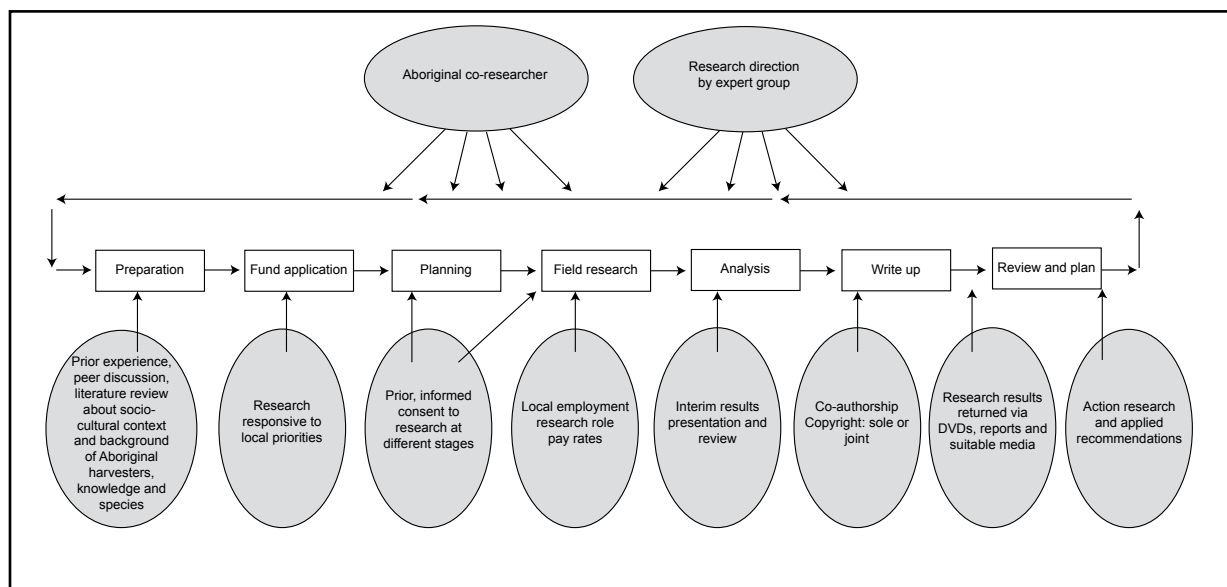


Figure 8: A 'package approach' to ethical research methods

This approach will increase Aboriginal participation in bush foods related research and improves benefits to Aboriginal people

Internationally, there is an expanding array of conventions and treaties relevant to Aboriginal knowledge and plant developments. This includes more than five treaties on intellectual property, several human rights bills, four cultural property conventions and three instruments on plant varieties and genetic resources. While Australia is a signatory to many of these conventions, Janke (2009) argues that Australian laws need to develop to follow them.

Australia is a signatory to the *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization* (SCBD 2009). This is currently the main international standard that provides specifically for measures to protect Indigenous knowledge and practices relevant to the conservation and sustainable use of biodiversity. This convention formally recognised the sovereign rights of nations to their biological and genetic resources. It specified that if Indigenous knowledge contributes to the generation of commercial profit, the knowledge providers are entitled to equitable benefit sharing. More recently, the *Draft Pacific Region Model Law for the Protection of Traditional Ecological Knowledge, Innovations and Practices*, the World Trade Organization and the World Intellectual Property Organization *Agreement on Trade-Related Aspects of Intellectual Property Rights*, as well as workings of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Indigenous Ecological Knowledge and Folklore, have gone some way toward grappling with the complex issues relating to Indigenous knowledge and intellectual property rights (reviewed in Janke 2009).

Janke (2009) proposes that *sui generis* laws, such as the Pacific Model Law, might offer the strongest potential support for Aboriginal cultural and property rights as they recognise the unique nature of Aboriginal peoples and cultures. However, Australia has no such formal laws nor any indication of their introduction. *Sui generis* is defined by uniqueness:

In intellectual property there are rights which are known as being *sui generis* to owners of a small class of works such as intellectual property rights in ... databases and plant varieties. When referring to case citations and authorities, lawyers and judges may refer to an authority cited as being *sui generis*, meaning that in context it is one confined (or special) to its own facts.

Wikipedia 2010

Despite emerging international standards and developments, there is currently no specific national legislation giving exclusive protection to IEK. The Commonwealth Public Inquiry into access to biological resources in Commonwealth areas (Voumard 2000) reviewed public submissions; Aboriginal and Torres Strait Islander knowledge of biological resources was acknowledged but not addressed in detail. Only a few options to recognise the value of Aboriginal and Torres Strait Islander knowledge about biological resources were presented.

CSIRO suggested two options to recognise the value of Indigenous knowledge about biological resources. One is to create a new property right for all Indigenous knowledge attached to biological resources and negotiate a formula to facilitate benefit sharing. Alternatively, Indigenous knowledge could be declared and validated in a similar way to the declaration of background intellectual property when commercial technology relationships are created. Under this model a more specific benefit-sharing arrangement could be negotiated on a case-by-case basis.

Voumard 2000:113

In Australia there are currently few examples of ethical and equitable intellectual property negotiations in relation to IEK of plants used in the food, biopharmaceutical or biomedical industries. There are even fewer, if any, examples of substantive payments or other benefit-sharing returns to Aboriginal and Torres Strait Islander groups. There is also still a long way to go to resolve issues around fair and equitable benefit for Aboriginal and Torres Strait Islander people's intended or unintended contributions toward the commercialisation of species and to resolve the ethical and economic issues related to Aboriginal people with custodial associations with particular plant species.

Table 3: Legal acts, conventions and treaties relevant to recognition of the role of Aboriginal knowledge and practice in the commercialisation of bush foods, medicines and other products.

Northern Territory Acts and legislation	
<i>Aboriginal Sacred Sites Act (NT) 1989</i>	
<i>Territory Parks and Wildlife Conservation Act (NT) and Parks and Reserves (Framework for the Future) Act 2003 (NT)</i>	
Permits to take wildlife (including bush food plant harvest): http://www.nt.gov.au/nreta/wildlife/permits/index.html	
To export or import wildlife from the Northern Territory: http://www.nt.gov.au/nreta/wildlife/permits/importexport.html	
Australian acts and legislation	
<i>Aboriginal Land Rights (Northern Territory) Act 1976</i>	<i>Patents Act 1990 (Cth)</i>
<i>Native Title Act 1993 (Cth)</i>	<i>Plant Breeder's Rights Act 1994 (Cth)</i>
<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)</i>	<i>Trade Marks Act 1995 (Cth)</i>
<i>Copyright Act 1968 (Cth)</i>	
International declarations and treaties	
<i>Convention on Biological Diversity</i> , especially CBD Articles 8(j), 15.2, 15.4, 15.5 15.6, 15.7 (Australia a signatory)	
<i>ILO Convention 169</i> (Australia a signatory)	
<i>Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Benefit Sharing of the Benefits Arising out of their Utilization</i> (Australia a signatory)	
<i>UN Declaration on the Rights of Indigenous Peoples</i> (Australia a signatory)	
Human Rights Treaties (ICESCR, ICCPR, ICERD)	
International programs	
<i>Protection of Plant Varieties and Farmer's Right Act 2001</i> (India) and <i>Indian People's Biodiversity Register</i>	
Forest Stewardship Council (FSC) has two certification systems that are widely in place; both stress fair pay requirements.	
Fairtrade	
Labelling of geographic origin (Appellation Contrôlée)	

In this report, we propose ethical guidelines to complement Western laws and legal processes because precedent cases are inadequate. Due to shortcomings in laws and conventions, ethical guidelines should be given equal weight to legal frameworks (Table 4). The advantages of ethical guidelines is that they offer a moral code at an individual level, they are cheaper to implement and they can cover a broader, more integrated set of values than addressed in law. The latter is particularly important when there are perceived shortcomings in law. The ethical guidelines in this report, which are partly derived from custodial relations between Aboriginal people, plants and land, must be seen to complement Australian laws.

Certification associated with either ethical harvest and trade and/or ecologically sustainable harvest has been proposed in Australia (Shanley et al. 2002; Palombi 2009; Cunningham et al. 2009). Fairtrade and the Forest Stewardship Council are two examples of international certification systems. However, there have been some strong critiques of certification due to the high costs to establish and monitor certification agencies and because it can be difficult or impossible for small-scale local producers or traders to comply with criteria and reporting. A warning is given by Phytotrade, a major natural product trade association:

If the gap between the industry's certification expectations and the small-scale producers' certification capacity is wide, there is likelihood that small scale producers will be excluded.

Welford & Le Breton 2008:69

In central Australia, the potential for this gap is extremely high given the context of remote harvesters. They have strong traditional skills, but low written literacy; high autonomy but no representative association; and eight languages, but English-dominated institutions. A very careful cost–benefit analysis from the perspective of Aboriginal harvesters would have to be taken prior to further consideration of a certification system. Hence we propose an ethical approach, at least initially.

Internationally, there are many codes of conduct relevant to Indigenous knowledge and commercialisation. The International Society of Ethnobiology is recognised to have one of the strongest codes of ethics related to research about the inter-relations and uses of plant and animal species by Indigenous and local people (ISE 2006). Central Land Council (CLC 2005) and the Desert Knowledge CRC (DKCRC 2008) also have research protocols. These include some but not all of the research actions proposed in Figure 8. None of the protocols deal in a substantive or explicit way with commercialisation of Indigenous plant knowledge, plants or their products. However, the Desert Knowledge protocol states:

The Board will ensure that no commercialisation takes place until they have ensured that the Aboriginal people and communities who have rights and interests in such material have had opportunities to decide whether to give their free, prior, informed consent to such commercialisation ... Benefit sharing with Aboriginal people based on their knowledge contribution to projects that have the potential to yield revenue streams will be negotiated on a project by project basis with the starting arrangement being equitable income sharing of net benefits for both the DKCRC and Aboriginal parties. [The former] will be allocated to fund research of a priority to desert people.

DKCRC 2008:4

Table 4: Comparison between advantages and disadvantages of ethical guidelines and Australian laws

Guidelines	National and international laws
• Effective at individual levels • Are not binding – voluntary • Cheaper to present • Can fill shortcomings in laws • Can cover more subjects and aspects than laws	• Are binding on people and companies • Need expensive specialist expertise, e.g. lawyers • Require institutions to oversee and implement them

Source: adapted from Quiggin 2007

PART 2: Guiding principles and practical actions for bush foods researchers, enterprise leaders, workers and professionals

Guideline 1: Learn and act on ethical and social responsibilities related to bush food species, their custodians and knowledge experts.

Guideline 2: Ensure fair and equitable benefits and returns for Aboriginal people and communities.

Guideline 3: Use an ethical approach to negotiate agreements about intellectual property derived from Aboriginal knowledge and custodial rights.

Guideline 4: Enable Aboriginal employment and training within bush food enterprises and industry.

Guideline 5: Support older Aboriginal people to pass on knowledge about bush foods and their importance to younger people.

Guideline 6: Improve governance roles for Aboriginal people within all stages of the bush foods economic chain and wider industry.

Guideline 7: Restore country, ecology and bush food species through natural and cultural resource management and landcare.

Guideline 8: Identify and label the geographic origin of plants under the directions of local custodians.

Guideline 9: Communicate with Aboriginal people using clear and accessible media with relevant and useful content about developments in bush produce research, enterprises and industry.

Guideline 1: Learn and act on ethical and social responsibilities related to bush food species, their custodians and knowledge experts



Photo 4: Aboriginal harvesters collecting Akatyerr on Alyawarr country with an interpreter and visitors

Photo © F Walsh

“The plants are not just growing out there, but it’s about Tjukurrpa as well going through. All these foods are related to Tjukurrpa and our totems. Kampurarrpa connects Arrernte people to Pitjantjatjara people along those Tjukurrpa lines. That plant links us so we respect each other.” (Lorna Wilson)

“How to make sure [the bush foods industry is] not taken over by people who want to make it bigger, faster? How to [allow local people] to keep control and not just give it away?” (Veronica Dobson)

“Many whitefellas just don’t realise that it’s so important to have Aboriginal people involved in the industry. It’s very important. If you lose that link between Aboriginal people and bush food, then you lose everything. It’s hollow. It’s nothing.” (Rayleen Brown)

“[A reference group member] didn’t even want to talk [at an industry meeting]. She sat back ‘Oh my goodness! What’s happening here? This is going like a roller-coaster!’ And people were all trying to get in on it. She said the whole thing was that they forgot about Indigenous people and their stories and what it all meant.” (Rayleen Brown)

“Got to know about rights. Bush foods is going to take off like arts industry.” (Bess Price)

“Give information to local people about their rights. Give them knowledge and value. Make sure they can ask for the right price.” (MK Turner)

“How to keep Aboriginal people involved when the industry development is so rapid?” (Rayleen Brown)

“Best value comes from when we can link bush food sales to a [cross-cultural] experience. Food becomes more of an experience; it is deeper because it links the food to the culture.” (Rayleen Brown).

Practical actions

1.1 Practice ethical engagement with Aboriginal people

Before a bush foods research or development project starts, it is important to engage with the appropriate Aboriginal people who have custodial rights and knowledge about the plant species concerned. In most cases this will first involve approaching the Land Council that represents the interests of the people whose country on which you want to undertake research or project development work. Land Council staff can help identify the right people with authority to speak for that country and for the plant resources on them. For widely distributed plant species, this may involve tens or hundreds of people who may have custodial associations with the species. Negotiating legal agreements with individuals (without appropriate consultation) is unethical and breaches Aboriginal cultural protocols. Many harvesters live on their traditional lands and formal permission (or an entry permit) must be gained from the relevant Land Council before entering lands. Don't rush into project work with tight deadlines. It is important to slowly build up a relationship of trust with the people you want to involve in the project. Clearly inform people about the nature of the project or of the commercial enterprise and exactly how they will be involved in the work (roles, wages, responsibilities), and tell people what is likely to happen with any of the collected information (images, recordings, notes, etc) .

It is critical that Aboriginal people are offered choices about whether to be involved in the research or commercial development project prior to any work actually happening (free, prior, informed consent). Ensure the project has been clearly explained with potential benefits and risks identified and explained. Negotiation should result in an agreement for the conduct of a research project, based on good faith and free and informed consent. The principles of free, prior informed consent regarding access to knowledge, land or plants must be adopted not just at the beginning of a project but at all stages through the project as it evolves.

Use participatory planning methods so that Aboriginal people are involved in all stages of project planning and decision making. This will ensure that they retain control and ownership over their ecological knowledge (e.g. Walsh & Mitchell 2002).

Make sure that negotiations to establish remuneration rates and benefit sharing arrangements with Aboriginal communities are open and clearly communicated (use translators where possible), and that resultant agreements or contracts are in plain language and that they fairly reward Aboriginal people's IP and all other input into bush foods developments or research.

1.2 Adopt an approach centred on social responsibility

The bush foods industry has gained substantially from Aboriginal knowledge and practices; arguably the gains of the industry are more than the benefits gained by Aboriginal people to date. As a consequence, the industry and its constituents have a social responsibility to support Aboriginal harvesters and knowledge holders. This support may come through private enterprises and from regional agencies. This could be similar to the resourcing and programs available through government and non-government agencies, for example, in pastoralism, tourism or horticulture.

1.3 Apply ethical research practices

Those engaging with Aboriginal people through research and development projects must respect and observe Aboriginal peoples' local protocols and values. Finding out what local Aboriginal priorities are when it comes to research and then supporting projects that address these priorities is essential to any research process. Allowing sufficient time to plan and undertake research is crucial; inappropriate time frames and external research agendas do not respect local Aboriginal processes nor do they take into account customary protocols and the wide ranging interests and rights relating to plant species held between individuals and within and between communities.

1.4 Arrange cross-cultural training for all project researchers and staff

Researchers rarely have adequate training in working with Aboriginal people or in using participatory planning methods. Cross-cultural training, delivered by teams of local Aboriginal providers and those with long-term cross-cultural expertise, is highly recommended. Training that specifically relates to plant species, plant custodians and cultural protocols associated with plants could be requested. Appropriate governance of research projects should also be taken into consideration and a local reference group should be convened to provide direction, advice and feedback.

Guideline 2: Ensure fair and equitable benefits and returns for Aboriginal people and their communities



Photo 5: Cash in hand or cheque payments have been preferred by Aboriginal harvesters in central Australia. Prices are paid on a per kilo basis for good quality produce. Prices have been set by the downstream market elements.

Photo © G O'Loughlin

"We need to find out what all those people [harvesters] have to do to collect bush foods in the first place. How long it takes them to go out. It could be three or four days, it could be a week and they've also got to sit down and clean it, dry it out. They have to get enough to sell so you can't just go and buy what is already in the bags." (Lorna Wilson)

"In the cities they don't even see what prices are being paid back here, they've got no concept of that. They have no concept of the hard work that goes into it." (Rayleen Brown)

"The value should be at raw product end because that's where the hard work has gone in." (Rayleen Brown)

"Bush tucker is an important part of our lives. A lot of women paint bush tucker, so it's a really big focus in their lives." (Rayleen Brown)

"I have seen bush foods in shops and wondered if fair pay has gone to those people who collected it." (Lorna Wilson)

"Giving the information to the bush mob in regards to what their rights are when someone comes and they can say, 'No, that's not enough.' ... that no one can just come and say, 'I want to buy that off you for this much.' And bush people would think that they couldn't say 'No'. If you don't want to sell it for that much, you don't have to sell it for that much." (Rayleen Brown)

"Aboriginal people know many uses for plants and these are not new to them. They are new to whitefellas." (Bess Price)

"Some people are pushing for them [traders] to put their price down but to put their price down means that might have to put the price down to the harvesters. That's going to essentially end up with those people that are harvesting getting less." (Rayleen Brown)

"People nourishing the land, land nourishing people – we all need to acknowledge these relationships." (MK Turner)

Practical actions

2.1 Develop benefit-sharing arrangements

The terms and conditions of benefit-sharing arrangements should be negotiated with knowledge custodians or Traditional Owners at the beginning of the research or industry development process. Then it should be re-negotiated at stages through the research process because research findings bring new information that requires the 'informed consent' process to be revisited. Negotiations should not be confined to the end of the research. Benefit sharing should be clarified and negotiated when making free, prior informed consent. Benefit sharing should be based on ethical principles, and involve full participation and agreement by all of the relevant Aboriginal people.

The provision of benefits should not be dependent upon commercial outcomes, as successful commercialisation is never guaranteed. Benefits need to be gained by and returned to Aboriginal people through the course of the research and development phases. This is additional to negotiated benefits from successful commercialisation.

2.2 Make fair payments to harvesters

Ensure that harvesters and other Aboriginal people involved are paid at rates at least comparable to similar work in the commercial horticulture industry. Ethical pricing arrangements per kilo of product should be adhered to. Parties further up the value chain should not push to reduce harvester prices paid per kilo. There needs to be clear and equitable agreements about margins along the value chain. Harvesters need support to know and understand the reasons for economic margin along that value chain. An example of introductions to the value chain for Aboriginal harvesters is in Vincent (2009). However, this does not explain the pricing and returns along the chain, that is, its 'money story'. For example, a bush food with a commercial value in the Kimberley, *gubinge* (also known as Kakadu plum or Billy goat plum), is sometimes wryly referred to as the 'fighting fruit' (M. Bin Swani, pers. comm 2009). This is largely a result of margins and pricing not being understood and creating local tensions. It is critical that margins and pricing be explained in clear and accessible formats.

2.3 Avoid making false claims about benefits to Aboriginal communities

Due to a lack of regulation, claims about the benefits to Aboriginal harvesters made by those in the bush foods industry could go unchecked. Such claims relate to economic benefits, jobs and training that flow back to Aboriginal harvesters and their communities. Companies that use a logo on their products indicating that the company supports Aboriginal people's involvement in, and receipt of benefits from the bush foods industry need to show how Aboriginal people are actually benefiting (and the means and mechanisms used for returning benefits). For example, if a company sources a particular bush food from central Australia and the product made from this bush food is a 'best seller', then a percentage of company profits should be returned for the benefit of the Aboriginal harvesters in central Australia who sourced the bush food produce.

Making false claims about benefits back to Aboriginal people puts companies at risk of breaching laws such as the Trade Practices Act ('misleading and deceptive conduct') and negative publicity. Companies should include data about their claims of benefits, jobs and training on websites so consumers can have access to information as to how Aboriginal people are benefiting from the products they are buying. Consumers have an opportunity to contribute to the Aboriginal economy and should consider whether the product they are buying benefits Aboriginal communities and the extent to which income is returned to Aboriginal communities.

Guideline 3: Use an ethical approach to negotiate agreements about intellectual property derived from Aboriginal knowledge and custodial rights



Photo 6: The harvest for Akatyerr requires specialised knowledge such as plant species identification, and knowing the right season and likely habitats where it can be found in suitable quantities to harvest

Photo © F Walsh

“People need to respect that this knowledge has come from people on the land first before others [non-Aboriginal people] knew about this. They are the ones that gave that knowledge to these people that are producing all these products now.”

(Rayleen Brown)

“We have to make the rules very strong so that overseas countries can’t own our plants. The plants and the knowledge belong to Aboriginal people.” (Lorna Wilson)

“Still have to recognise where the plants and seeds come from. Need to remember which area the actual plant/seeds came from and whether they had permission to use the plant/seeds. Registering and monitoring where the plants and seeds come from. If they want to look at and research a plant they need to make an agreement and make sure it’s OK first.” (Veronica Dobson)

“Having these [industry guidelines] will make people think first before taking plant material. We can ensure that there are processes before going and getting material.” (Rayleen Brown)

Practical actions

3.1 Recognise that Aboriginal people have pre-existing rights

Aboriginal people have rights at multiple levels of governance. These rights range from the local governance level to the framework of human rights that exist in international law. It is necessary to recognise and respect Aboriginal customary law as the main source of authority. This may be accessed by working with local Land Councils or Native Title Bodies to ensure that the customary law obligations and rights of IEK holders are upheld and taken into account.

Australia was one of four countries to initially oppose the United Nations *Declaration on the Rights of Indigenous Peoples*, then the Rudd Government endorsed the Declaration on 3 April 2009. Some of these rights are enshrined in relation to land tenure, such as through native title and the Aboriginal Land Rights Acts. These have implications for traditional owners' or native title holders' involvement in plant species domestication. For example, Central Land Council is required to consult with Aboriginal people living on or concerned with Land Trusts regarding management of the land and any proposals related to its use (Section 21 Commonwealth of Australia 1976). As plant species are inherent components of land, the collection of species proposed for commercial domestication may require consultation with traditional owners through their representative body. Researchers who avoid negotiations through land councils potentially disinherit traditional owners from their right of decision making over species.

It is important that intellectual property percentages associated with IEK are rightfully assigned to knowledge custodians rather than to the non-Aboriginal businesses that on-sell plant materials to researchers and commercial enterprises, or to industry partners who go on to develop a commercial product based on this traditional knowledge.

Researchers and industry partners must treat IEK that is transmitted orally and through other knowledge systems (e.g. hand signs) as if there are legal rights (such as copyright) attached, and Aboriginal people's ownership and copyright authority needs to be clearly identified in research reports, product development materials, publications and promotional materials.

Research and development staff should be very familiar with the professional protocols, guidelines, codes of conduct or codes of ethics related to Aboriginal people's rights and knowledge about plant species domestication and non-timber forest products. These include protocols and codes from regional, national and international organisations. They should read and review these guides regularly. They should respect and work within them.

Research and development staff and businesses should have a general knowledge of the main Australian intellectual property laws related to Aboriginal knowledge, native plant species and plant products. They should abide by these laws. These are laws related to copyright, patents, plant breeders' rights, breach of confidence and privacy laws, trade marks, geographic indications, agreements and contracts, environmental laws, and land and heritage laws.

Research and development staff need to recognise the weaknesses and strengths of these Australian laws in relation to the protection of Aboriginal knowledge and practice. The multiple laws should be used as a package to overcome the weaknesses within them.

Ethical guidelines and Western Laws should be used to complement each other and reinforce the shortcomings of each in respect to Aboriginal people, their knowledge, their plants and produce. The rights and responsibilities of Aboriginal people under these laws and protocols need to be clearly communicated and explained to them in appropriate detail and using appropriate media.

3.2 Fairly acknowledge and reward Aboriginal people's intellectual property input into developments from plant produce

Some IEK is able to be used in the public domain, while other parts are more culturally sensitive. Be sure that you find out what knowledge can be made public. This needs to happen early on in negotiations with custodians of the knowledge. It is important to negotiate fair rewards to custodians or Traditional Owners who share IEK at the outset of a project, and to specify exactly how IEK will be used and how this knowledge will be managed and repatriated (returned to communities) after the project is completed. Clear agreements that specify benefit-sharing arrangements with knowledge custodians and Traditional Owners should be developed in the early stages of a project.

Fair payments to Aboriginal people for expert knowledge, price per kilo rates or other labour should be determined by reference to pay rate standards recommended for research or the horticulture or other appropriate sectors.

Negotiations about background intellectual property and intellectual property derived from IEK should give value to the longitudinal depth over which species-specific knowledge has been accumulated. This should also recognise that Aboriginal practices may have deliberately manipulated and adapted plant species over thousands of years (Gerritsen 2008; Keen 2004). The Aboriginal knowledge or background knowledge may have monetary or other values at least equal to if not greater than contributions from Western scientific knowledge and technologies. It should not be assumed that Aboriginal knowledge inputs equate to a 50:50 or lesser ratio.

The sincere acknowledgement that IEK plays a vital role in the development of new products within the bush foods industry shows respect to Aboriginal people. Appropriate ways of acknowledging this input include having clear information about the use of IEK in product development on the labels of all bush food products. This acknowledgement should also be included on all promotional materials, not to promote sales but to provide sincere respect.

It is important that Aboriginal artists, preferably those who have traditional ties to the country in which the bush foods were harvested, are given opportunities to supply artwork for product packaging and promotional materials. In remote areas, many artists are associated with a community-based art centre. In this instance, the local art centre should be the first point of contact.

3.3 Make equitable agreements based on at least a 50/50 split

The Samoan Mamala Tree Agreement is an international example of an equitable agreement. The anti-AIDS drug Prostratin was isolated from the Samoan mamala tree, *Homalanthus nutans*. Researchers from the University of California at Berkeley hope to extract the genes that make Prostratin, insert them into bacterial factories, and produce inexpensive drugs for developing nations, sharing any profits with the Samoan people. The agreement between the Samoan Government and the University of California at Berkeley is based on a 50/50 share. Revenue received by the Government of Samoa is broken down into different percentages. This is innovative in its recognition that people from different places have different rights associated with the species. These rights were distributed to village groups and to the descendants of individuals, using the following formula:

- Subdivision of 50% of revenue to Government of Samoa
 - 33% Falealupo Village
 - 2% to Saipipi village
 - 2% to Tafua village
 - 8% to other villagers
 - 2% to descendants of Epe Mauigoa
 - 2% to descendants of Pela Lilo
 - 1% to Seacology
- Remaining 50% to University of California.

(pers. comm. R Quiggin and see Sanders 2004)

Guideline 4: Enable Aboriginal employment and training within bush food enterprises and industry



Photo 7: A bush food trader weighs seed produce received from an Alyawarr man and woman to calculate their payment

Currently, only one of four central Australian small enterprises can afford to employ Aboriginal people to process and manage purchased produce due to low to negligible margins.

Photo © G. O'Loughlin

"We want these bush food businesses to be benefiting Aboriginal people here in central Australia." (Gina Smith)

"The research should be done by the younger generation so they learn about the actual lands and the way it used to be used by the old people. These mainstream groups, these whitefella groups need to work harder to get Aboriginal people involved." (Veronica Dobson)

"Get younger people involved so they can learn." (Bess Price)

"The Indigenous side has just been forgotten about." (Veronica Dobson)

"Indigenous foods are something that's really important. We have to have somewhere, like a base for training for people that want to get into the industry, communities they want to get training to do things with Indigenous foods." (Rayleen Brown)

"Bush food research is important; there should be training for [Aboriginal people] in the bush food project. Must recognise [the importance of involving] young people. Need to push for this. Non-Aboriginal people come and go. Our children will stay here. They need to be the researchers. Jobs mustn't go just to outsiders, otherwise our children will be in the river [with no work]." (Veronica Dobson)

"Research should be done by the younger generation. Young people working with conservationists and others." (Veronica Dobson)

Practical actions

4.1 Provide employment opportunities for young Aboriginal people in the bush foods industry

Young Aboriginal adults in remote communities are at a disadvantage when it comes to accessing work and training pathways. In many cases, pathways between training and work are very limited. It is important that in regional and remote areas, innovative approaches within the industry are used to get more young people involved in the industry and to incorporate training and employment outcomes in benefit sharing arrangements. This could be done through short to medium term work experience placements, traineeships and industry supported youth forums.

4.2 Recognise and support key roles that Aboriginal bush harvesters play in the industry

To date, the highest income and employment returns and benefits have been to Aboriginal people who harvest and sell seed from wild or bush populations. Support to continue their engagement in emerging industries should be provided. Furthermore, when the potential of horticultural enterprises is assessed, the risks to bush harvesters should be considered. Risks such as displacement of wild produce with cultivated produce may reduce returns for current harvesters.

4.3 Support the establishment of local Aboriginal bush foods initiatives

The bush foods industry has the potential to offer important livelihood and non-monetary benefits to Aboriginal people, especially those living in remote locations where income opportunities are limited. In desert Australia there are numerous social, cultural and economic benefits from the collection and sale of wattle seeds, Desert raisin and other species.

For new enterprises that involve non-Aboriginal and Aboriginal partnerships, the business structure should, as far as practicable, allow majority Aboriginal ownership. It is also important that transparent processes are put in place for decision making so that certain groups cannot take control of the processes and thereby ensure their own benefit at the cost of others (Morse 2005).

Maruku Arts and Tjanpi Aboriginal Baskets are examples of Aboriginal-owned enterprises that have extensive Aboriginal involvement from which benefits are returned directly to communities (Wright & Morphy 2000). Those in research should collaborate with Aboriginal people and their representative agencies to determine locally appropriate business models. Joint business models need flexibility and adaptability; there is no 'one size fits all.' If enterprise development is too rapid and not done properly, there is the possibility of de-stabilising the initiatives of Aboriginal people and groups who have put in a lot of work into the bush produce area.

4.4 Ensure fair payments to Aboriginal research consultants, interpreters and translators

Ensure that trained or skilled interpreters are employed in all stages of project negotiations and consultations with Aboriginal communities. Researchers should be mindful of how they can contribute to livelihoods for Aboriginal people in the research area. People should be paid properly and appropriately for the use of their time and expertise. Researchers may be able to provide casual work, on the job training and/or mentoring. Aboriginal people who are contracted as research consultants or to provide cultural brokerage services should be paid at consultant rates. For example, the Desert Knowledge CRC has a *Schedule of rates of pay for Aboriginal Workers in Research* (DKCRC 2007).

Guideline 5: Support older Aboriginal people to pass on knowledge about bush foods and their importance to younger people



Photo 8: Senior Alyawarr women harvest Acacia seed while younger women assist and children observe

In the Sandover region, four generations share in intergenerational learning. Bush food trade provides an important reason to practice and keep traditional knowledge strong.

Photo © F Walsh

“Tell [young people] about the healthy way of living like walking and getting bush foods. Encourage the old people to teach them children how to dance for all this food here. When they grow up they can tell people what the food is all about. Where it’s from and how you can get it and fruit is not just food just picked off a plant. It is part of us. The way we eat it is special. But we’ve got to teach our kids – we’ve got to teach our kids what is really important ... And we’ve got to make sure whitefellas respect it – those merne [plant food].” (MK Turner)

“Need to support young people to be out on country. This is needed to keep the knowledge strong.” (Myra Ah Chee)

“We need information about bush foods, plants, animals for use in schools. Use video, computers (as well as other ways).” (Bess Price)

“It is good for kids when they’re growing up and going to school to learn about bush foods. They can see it and learn about bush tucker. It will be something for them and kids in the mainstream. They might go out bush and learn too. Looking after plants earlier on.” (MK Turner)

“We learn [about bush foods] by observing, it is an oral way and it is ongoing. Children learn by watching, feeling, not writing it down. Old people decide to support a young person who is keen. You are chosen; we don’t put ourselves forward as leaders. Our office is our country.” (Gina Smith)

“It’s really good, just going out and getting all these foods and putting it on the table and not only for the tourists, get our kids to taste it too.” (MK Turner)

Practical actions

5.1 Support local initiatives

Aboriginal livelihood and economic opportunities associated with bush foods will diminish unless younger generations can learn about them. There has been rapid and severe fragmentation of knowledge about different species, their uses, locations and other traditional information essential to the harvest and management of bush foods. People want support to teach younger generations. As part of showing respect for Aboriginal values and cultural traditions it is critical to listen to the aspirations of local communities or key elders, and to help find practical ways to support local community initiatives or priorities.

Aboriginal people value knowledge about plants and their uses (Laramba Women & Green 2003; Turner 2005b; Dobson 2007). Walsh (2000) identified the importance people in central Australia placed on children learning about their 'country and culture' and the stronger role they would like language and culture to play in natural resource management. It is important to them that this knowledge continues to be learned and passed on to younger Aboriginal generations. Industry initiatives or benefit sharing arrangements should ensure that schools and community-based youth programs can access resources and funding streams to support country visits, which incorporate learning about plants and bush foods. Informal, 'out-of-school' community initiatives are also important in connecting generations and linking young adults back into learning.

5.2 Funds or in-kind support should be provided to develop resources, publish books, DVDs and other materials that document cultural knowledge and traditional land management practices

This should be a priority for researchers and industry groups working with Aboriginal communities. For examples, see (Dobson et al. 2008; Alyawarr et al. 2009; Vincent 2009). These vital resources document Aboriginal cultural knowledge and can be used in schools, but are too expensive for small remote schools to produce. Schools are commonly the hub for IEK documentation, for example, the IAD Press picture dictionary series which includes sections such flora, fauna and landscape.

Community-based Aboriginal ranger groups play an important role in managing country. Such groups can contribute to management of resources and provide support to bush harvesting activities (e.g. for carrying out localised burns to encourage the growth of Akatyerr or protective burns around high value fire sensitive plant species). The bush foods industry could provide much-needed funding for these ranger groups through benefit sharing arrangements negotiated with custodians and traditional owners.

Initiatives that aim to provide a ready supply of fresh and affordable local bush foods in community stores are needed. These may improve the health of community members and foster an interest in bush foods among younger people. To provide financial and logistical support for this initiative would be a valuable way that industry or researchers could share the benefits of new bush food developments.

Practical ways of supporting Aboriginal aspirations about intergenerational transfer of traditional knowledge can include the following:

- contribute to policy that strengthens the retention and practice of Aboriginal language and culture in regional and remote schools
- contribute to policy that supports the intergenerational transfer of IEK
- provide resources to support inter-generational knowledge transfer from senior to younger Aboriginal people, particularly about species with current or potential commercial potential
- develop resources about bush foods that can be used in curricula, classrooms and 'on country'
- repatriate documents, video and other information with traditional knowledge about bush resources back to relevant Aboriginal keeping places and archives
- when on regular bush trips, agencies should provide extra vehicles and space for young people to accompany adults
- support and resource special trips that focus on bush foods.

Guideline 6: Improve governance roles for Aboriginal people within all stages of the bush foods economic chain and wider industry



Photo 9: Reference Group member Gina Smith explains the bush food guidelines and recent industry developments to the Central Land Council (CLC) full council meeting

Reference Group members MK Turner and Rayleen Brown look on while the CLC Chairman, Lindsay Bookie, listens.

Photo © J Hodson

“There should be somebody from this group joining the people that are up top, whoever they are. How do people who are up top and behind closed doors know what community people are doing? They need to get information from the horse’s mouth. People are not getting access to the right people who are dealing with this stuff. There are many different people involved in bush foods but we don’t know who these people are and what they’re doing.” (Gina Smith)

“These mainstream groups, these whitefella groups need to work harder to get Aboriginal people involved. They need to spread information wider to get people in communities included.” (Veronica Dobson)

“There are many different people involved in bush foods but we don’t know who these people are and what they’re doing. There is ANFIL, IAF, DKA, etc.” (Rayleen Brown)

“They [non-Aboriginal people] need to recognise the people of the land, where they got it from rather than just call it theirs. They’re going to try and grow it better and better. But what about the people of the land?” (Veronica Dobson)

“Tourists that are trying the bush foods like to know where it’s come from. I think to share this gives respect to those traditional owners and people who collect it. It respects them and their country.” (Rayleen Brown)

Practical actions

6.1 Develop, resource and support structures and processes that increase Aboriginal governance within different sections of the industry

Build on existing and/or familiar examples of what is considered 'good' governance by Aboriginal groups. The membership of governance groups supported by Aboriginal people often includes people from different socio-linguistic areas or countries, senior and younger people, women and men, people expert in customary traditions and people familiar with non-Aboriginal processes. These groups tend to work with 'trusted outsiders'. Groups that have shared socio-linguistic backgrounds and a smaller geographic or provincial focus seem to work better. Large research projects that cross state and territory borders may have an overarching steering committee, but it is important to have proportional representation from across a region that can reflect Aboriginal interests and can increase local Aboriginal engagement with a project.

These governance processes should be built from the ground up, that is, establish and strengthen local, then regional groups, who can then provide representation in cross-border groups.

Respect should be shown to community aspirations, practices and protocols. It should be acknowledged that Aboriginal people are the custodians of their cultural and linguistic heritage, and of the natural resources on the country with which they have custodial relationship.

Aboriginal custodians must have the right of choice over the development (or not) of bush food plant species. They should be offered different development models, and the potential risks and benefits of different development models should be carefully assessed from the perspectives of different Aboriginal roles in enterprises and emergent industry. These models include:

- Continue with local harvest as managed by local practices and for local customary use or small-scale intermittent trade
- Enrichment planting so in situ plants are more intensively managed for production
- Small-scale community garden with species production for local consumption or trade only
- Partnership with regional agency (e.g. Alice Springs Desert Park) to trial for commercial production but all trials within the region so governance group and custodians can access them to assess progress

or

- Export of plant material for research by interstate or overseas agencies

Customary protocols exist for some bush foods that determine that they cannot be developed for commercial purposes. These plant species should be identified early on in consultations with custodians and not considered for industry development.

6.2 Ethical engagement

Engagement is not just about creating 'awareness' or 'communication'. It should aim to build relationships and create partnerships, share knowledge and information, and respect local authority, protocols and customary law. Researchers and industry developers should engage a majority of appropriate Aboriginal people to guide and give advice on the development of a research agenda or development project for the bush foods industry.

Showing respect to Aboriginal people can be done in practical ways by:

- seeking guidance from community elders about the use of knowledge and its presentation
- genuinely and actively collaborating with Aboriginal people as co-researchers and in research governance roles
- fully acknowledging the holders of Aboriginal traditional knowledge, and respecting that any use of this knowledge needs to be negotiated on a case-by-case basis
- paying people appropriately for the use of their time, expertise and knowledge
- ensuring ongoing consultation with local communities and peak representative bodies; at local levels, attention must be paid to local cultural protocols and governance concerns and this will vary from community to community
- maintaining ongoing clear and straightforward communication with people throughout all stages of the project
- engaging must be under the premise of mutually agreed roles and expectations.

Guideline 7: Restore country, ecology and bush food species through natural and cultural resource management and landcare



Photo 10: Vigorous regrowth on an Akatyerr plant less than two years after land had been burnt on the Alyawarr Aboriginal Land Trust

Managed burns and rainfall contribute to long-term flower and fruit production and ecological sustainability.

Photo © F Walsh

“Keep respect for the way that bush foods are harvested and the way they are picked and cleaned. Harvesters don’t trample over them, don’t break branches off, don’t eat too many. Plants are totems to people. People collect plants carefully, treat them with respect. They don’t pull them up by the roots.”
(Veronica Dobson)

“Community ranger groups are important in managing country.” (MK Turner)

“Cattle owners with big leases and cattle coming and going, causing erosion and dust, killing off plants. It’s a big problem to our people, being moved away from their country makes it hard to look after it. Proving the right to be on the land so we can be on the land to look after it. For example, Emily Gap was looked after by Arrernte people before by conservationists.” (Veronica Dobson)

“Keep records of plant patch locations, whether fruit is getting smaller or less as the landscape changes with cattle and burning, so we can show and manage these changes.” (Veronica Dobson)

“Respect the families, teachers and country associated with bush foods.” (Gina Smith)

“Akatyerre only grows in certain places. It doesn’t grow in town here. It grows out where the soil is the right soil for it to grow on. When people go out collecting it they know where to go, where the plants grow. Changes have come because of roads being put down and cattle being put on the land. A lot of it gets destroyed by cattle and people driving over the top. This is mucking up the system of how they used to grow in the first place.” (Veronica Dobson)

“Overstocking. There are too many cattle.” (Myra Ah Chee)

“Killing off of bush foods, introduced grasses (and fire), hard-hoofed animals. We’re always stressing how the plants are going to be destroyed.” (Veronica Dobson)

Practical actions

7.1 Reinforce and support cultural harvesting practices

Community ranger groups have an important role in managing country. Such groups can contribute to management of resources and provide support to bush harvesting activities (e.g. for carrying out localised burns to encourage the growth of Akatyerr). Contact regional land councils to find out more information on community ranger groups and what role they could play in supporting local initiatives. An example could be clearing a road to make wider land areas accessible for harvesters.

7.2 Observe and respect ways of collection and care of plants.

Bush food harvesters generally have strong environmental awareness. Harvest activity makes positive contributions to the maintenance of ecological knowledge and environmental management. Aboriginal people have existing skills and knowledge and enjoy being out on country; they carry out many different activities during harvesting trips. The harvesting of bush foods and other resources has historically been the underpinning of Aboriginal land management practice. An expanding body of research indicates that Aboriginal engagement in land management has positive impacts upon psychological and social determinants of Aboriginal health (Davies 2008). Raising awareness in the industry and among consumers about wild harvest assists with creating and maintaining a demand for wild-harvested produce. It is important that Aboriginal harvesters can continue to do what they are good at and enjoy doing without being pushed into roles and taking on responsibilities that have been imposed on them.

7.3 Incorporate bush food production into natural resource management plans

Bush foods rely on healthy lands to maintain their production. Many species have adapted to being managed in various ways by Aboriginal people as hunter-gatherers. Fire was one measure used to variously promote the regeneration of certain species or, alternately to protect stands of other species. Natural resource management plans associated with major issues such as burning, feral animal control or joint management of parks should aim to protect and promote bush resource species, especially those with commercial or high cultural values.

7.4 Develop structures and management plans for bush resources, especially high value species

Internationally, there are Indigenous groups whose natural resource management organisations are structured around their important foods or cultural keystone species, or 'first foods'. Initially, in central Australia there could be a specific support unit with programs related to bush foods and medicines and the major species. This is a radical concept, quite different from most natural resource management planning in Australia, and warrants further investigation.

The Confederated Tribes of the Umatilla Indian Reservation in Oregon, Western USA may provide a model. The Tribes have a mission centred on their first foods (McNeel 2009 and below). Their planning aims to maintain the productivity of major species groups, for example, through separate units where staff work on salmon, deer and women's foods. These units are integrated by the management measures that are common to all such as people liaison, wildlife survey, fire management and weed control.

The Department of Natural Resources Mission [of the Umatilla tribes] aim:

To protect, restore, and enhance the first foods - water, salmon, deer, cous, and huckleberry - for the perpetual cultural, economic, and sovereign benefit of the CTUIR. We will accomplish this utilizing traditional ecological and cultural knowledge and science to inform: 1) population and habitat management goals and actions; and 2) natural resource policies and regulatory mechanisms.

CTUIR 2008

Guideline 8: Identify and label the geographic origin of plants under the directions of local custodians

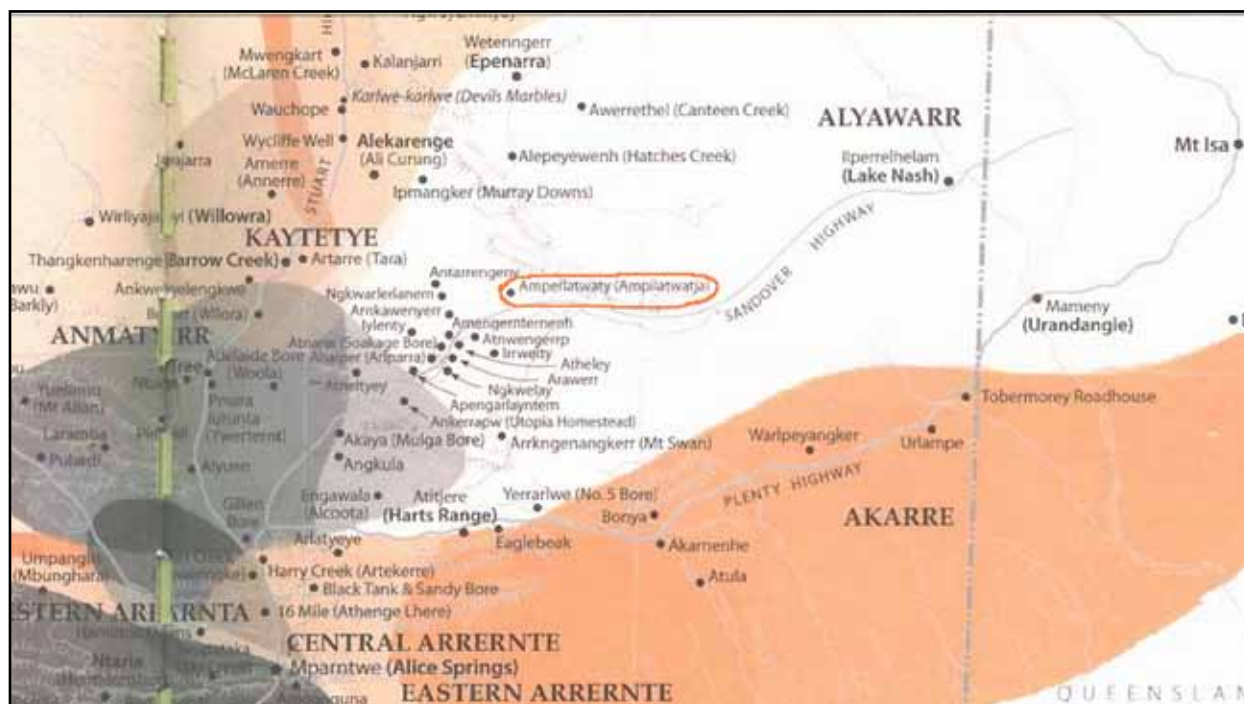


Figure 9: Aboriginal settlements and language regions mapped in central Australia

Aboriginal people may choose to label the plant produce they supply by reference to settlement names or language groups. Alternately, people may choose the names of Aboriginal Land Trusts from where they collected the produce.

Source: Hoogenraad and Thornley 2003

"They should be using our names for those plants and bush foods, not the kartiya [whitefella] names."
(Lorna Wilson)

"You feel proud when you go in a shop and you see it out there – marked as harvested by Aboriginal people of central Australia." (Myra Ah Chee)

"Tourists that are trying the bush foods like to know where it's come from. I think to share this gives respect to those traditional owners and people who collect it. It respects them and their country." (Rayleen Brown)

"Need to keep recognition of where plants are collected from and the community. Our people are being left out. Need to know which country or community it comes from." (Veronica Dobson).

"Any products that come in [to my kitchen and catering business], I like to know where they are from, what country, what language group. People who eat them want to know where they're from too. Customers ask us and the chefs where Desert raisins are picked." (Rayleen Brown)

"When plants are from [central Australia] they should be referred to by language group." (Veronica Dobson)

Practical actions

8.1 Collaborate with various Aboriginal custodians and groups to determine their preferred geographic descriptor

It is important that labels and information sources credit the area and language group from where bush foods originated and were sourced. All Aboriginal harvesters live in remote settlements from where they can access productive lands and these lands are predominantly on Aboriginal Land Trusts. Aboriginal people want their language groups or land trust or settlements to be identified. This descriptor may be by the name of the language group, local estate group, community or settlement of residence, significant cultural site or Aboriginal Land Trust. Language group names have been the preferred choice among Reference Group members. Alternately, land trust names may be chosen by harvesters. Consultation with traditional owners through the Central Land Council or representative Native Title Body may be required to identify the preferred geographic identifier. Where traders aggregate produce before onselling to processors, geographic descriptors should be identified to as fine a scale as possible and consistent with local harvesters' preferences.

8.2 Label plants, produce and products to identify the geographic source of bush food species

Information about the cultural traditions of bush foods should be included on promotional material such as websites, menus, flyers and labels. In this way, the diversity of Aboriginal people's cultures, languages and customs are acknowledged and respected. Internationally, labelling the geographic origin is one of the strongest means available to recognise local, customary or Indigenous knowledge.

Be specific about relating particular species back to their region of origin and Aboriginal socio-linguistic groups. For example, Lemon myrtle (*Backhousia citriodora*) is native to sub-tropical and tropical rainforest areas of Queensland; its natural distribution was not Australia-wide or across Aboriginal nations. Similarly, the Desert raisin (*Solanum centrale*) is found mainly in sandy habitats within the central and western deserts of Australia.

8.3 Use the right Aboriginal name by collaborating with different Aboriginal custodians and groups and linguists to determine the preferred species name

Aboriginal languages include extensive botanical vocabularies, such as plant names, terms for stages of plant growth, and terms for parts of plants. For some plant species there are specialised verbs for describing the method of collecting fruits and seeds, and of processing and eating them (Laramba Women & Green 2003). It is important to use the language name of bush foods alongside the common and Linnaean names. Aboriginal language names should be correct for the species described and be accurately spelt. For example, although an industry accepted name for Desert raisin or Bush tomato is 'Akudjura'; this is anglicised from Akatyerr and the latter spelling should be used.

While many Aboriginal people would prefer to see plants referred to by their Aboriginal names, there may be challenges for a national industry as to which name to use. For example, the very widely distributed species *Solanum centrale* has at least nine different names from different languages in the central and western deserts. It may be possible to select a single Aboriginal language name from these by selecting where the species is most abundant or most highly valued. However, decisions such as this should be made by senior people and leaders of the relevant Aboriginal communities.

Western agriculture provides models for regionally varying naming systems. For example, the French wine industry's ancient concept of *terroir* ('territory', 'region' or 'soil') addresses fine-scale variation in the cultural heritage and aromatic characteristics of wine produced from a single variety of grape in different parts of France. This cultural practice has become formalised in the French (and now European Union) laws of *appellation contrôlée* ('controlled naming') which are strictly enforced on wine labelling.

Guideline 9: Communicate with Aboriginal people using clear and accessible media with relevant and useful content about developments in bush produce research, enterprises and industry



Photo 11: Media, content and context about bush foods that actively engaged people from Soapy Bore.

Interpreter David Moore translated between Anmatyerr and English. Large photos, A3 photo reports and processed bush food products were some of the media used. A suitable open and clear space to meet was chosen by the senior woman involved in discussions.

Photo © F Walsh

"It's important that people who sell bush foods know the background to them and channel that information to people who use them." (Gina Smith)

"Those people should look further to inform Aboriginal people about things, for example, make pamphlets, videos, etc. Between local people, bush mob and then further again – making that link so each of them knows." (Rayleen Brown)

"We need to communicate with the big mobs that sit behind closed doors. They need to know, they need to be out there to find out what people are really on about rather than just talk about shuffling paper around. They need to talk about the reality of what's happening out on communities, how people are getting paid and things like that." (Gina Smith)

"People understanding about this is the hardest thing. Getting things explained in language ... all that tucker there is from their country." (Rayleen Brown)

"Need interpreters to explain properly what it's all about rather than rushing. Need good interpreters, especially for older people and young people who don't speak English. Need older people to be treated fairly. It's their future as well as your future. Need good interpreters to get proper information across both ways." (Veronica Dobson)

Practical actions

9.1 Use the ‘right’ language

Use skilled local interpreters and translators to ensure that people are heard properly and their views are not misrepresented. Language is a key issue. People should be able to use their own language ‘without hesitation or apology’ (Walsh & Mitchell 2002). In central Australia, English is a second or third language and understanding what people mean is not simple. For visitors, the ability to listen without talking is a good practical starting point. Interpreters and translators are available through local services and it is highly recommended that such services are budgeted for and used. Travel and camping allowances should be added for language workers working away from home. The Northern Territory Government has an Aboriginal Interpreter Service (AIS) that covers the central region (phone 08 8951 5576). In the Barkly Region, contact the Papulu Apparr-Kari Language Centre in Tennant Creek (phone 08 8962 3270).

9.2 Develop media that show what Aboriginal people want the wider industry to know and learn about

Communication is a two-way process. Aboriginal people also want to share aspects of culture relating to bush foods. In central Australia there are many examples of positive local media initiatives (e.g. PAW Media 2010). The key to a successful production process is when young adults work with elders to develop context-rich resources that document cultural practices such as hunting, bush food gathering, traditional food preparation, oral histories and traditional stories. Young people (mediated by senior knowledge holders) are skilled in using various digital media to document and record cultural knowledge. Always look to utilise local skills, as local talent exists. Locally produced resources contribute to livelihoods and intergenerational transfer of IEK as well as enabling Aboriginal people to communicate in the way they want.

9.3 Develop media about players and steps in the supply chain

The provision of information to individuals and community groups about the supply chain story must be done in an informative and appealing media. The use of photos is a practical way of engaging a broad audience and capturing interest. Text should be written in plain language. For remote Aboriginal people, the supply chain is a new Western system with concepts that will need to be explained in innovative ways. For an example from desert Australia, see Vincent (2009).

9.4 Utilise local people and Aboriginal representative organisations

Aboriginal people know who is a good local translator, who can assist to plan a meeting, who can choose its location, who can identify key community leaders and elders, who should be involved, and who can plan the order and content of a meeting. It is vital to ensure that there is a good cross-section of local people involved in any community meetings. Aboriginal organisations, like the Central Land Council, can provide advice on the relevant people to attend. When you are new to a place, it’s important to spend time before and after the meeting to get to know people and give local people the chance to get to know you. You need to explain that you are a visitor, the reason you are there and the reason why a meeting is being called. Be clear if you want to provide information only or if you are asking the group at the meeting to make a decision.

PART 3: People and processes behind these guidelines

This section is important because under Aboriginal customary ways it is the individuals and how they did their work that gives credibility and value to the results and material product of this report. For the Merne Altyerre-ipenhe (Food from the Creation Time) Reference Group the process was considered to be as important as the final written product (if not more so). Furthermore, for non-Aboriginal researchers and others, the process behind these guidelines may indicate what can be done to improve collaborations among Aboriginal and non-Aboriginal peoples.



Photo 12: Participants who compiled these guidelines

Reference Group members¹, researchers², CLC executive members³ and invited experts⁴ attend a special workshop for the development of guidelines. Left to right: Michael Davis⁴, Bess Price¹, Penny Williams⁴, Judy Dixon⁴, Gina Smith^{1,3}, Fiona Walsh², Lorna Wilson¹, Veronica Dobson¹, Tony Cunningham⁴, Robynne Quiggin⁴, Rayleen Brown¹, Lindsay Bookie³, and Josie Douglas². Absent members: Maree Meredith (CLC delegate) and MK Turner.

Participants who compiled these guidelines

The Reference Group was made up of respected and senior cultural experts from the main desert language groups of central Australia. Each of these experts was also highly experienced in an aspect of commercial enterprise including cultural consultation, catering, horticulture, royalty-equivalent payments and tourism. A Central Land Council (CLC) representative also sat on the Reference Group. Sandy Marty was the first delegate, but was replaced by Maree Meredith as the CLC representative. Members from this Reference Group articulated these protocols. Josie Douglas (Charles Darwin University, CDU) convened the group and Fiona Walsh (CSIRO) provided support. Mitch Jones (CSIRO) was an early member of the Bush Harvest research team and provided assistance. Robynne Quiggin, Michael Davis and Tony Cunningham provided specialist expertise on request.

The Reference Group began in late 2005; we met eleven times between 2005 and 2007. These meetings were held at CLC, CDU, CSIRO and the Alice Springs Desert Park. The principal guidelines, quotes and other content in this report were from these meetings. We also went on field trips to places that grow, trade, process or sell bush foods, for example, the bush produce traders and the Desert Park bush food gardens. Governance processes and the engagement between researchers and the Reference Group were

critical to the research outcomes and this report. All members of the Reference Group live in or close to Alice Springs. Meetings rotated around various venues, creating opportunities for group members to see and be seen inside various organisations involved in bush food research. English was mainly used during the meetings, but Arrernte and Pitjantjatjara prevailed in preliminary discussions. A culturally derived emphasis upon respect and deference to seniority prevailed within the group. The processes used within the group were summarised in Douglas and Walsh (2008).

An early outcome was to clarify an appropriate way to refer to the group and the common subject. Firstly, an Aboriginal language name for the Reference Group was more appropriate than the initial English name, and one was needed that would reflect the links between Creation, Country and People. An Arrernte name was selected as the group met on Arrernte country and its senior members were Arrernte. The Reference Group was named ‘Merne Altyerre-ipenhe’, which translates to ‘Food from the Creation time’. A second consideration was that the term ‘bush foods’ be used, rather than ‘wild foods’ or ‘native foods’, which may imply that the plants are ‘wild’ and not cared for. Lastly, a preference was given to referring to the plants by local language and common names rather than the commercial names such as ‘bush tomato’.

Merne Altyerre-ipenhe (Food from the Creation time) Reference Group members

Veronica Perrurle Dobson, AM (Eastern Arrernte)

Veronica Perrurle Dobson has been working to maintain and promote Arrernte language and culture for over 25 years. She has been involved in language maintenance work as a teacher, educator, linguist, researcher and author, as well as a translator and interpreter. Among her credits are two Arrernte curriculum documents: *Intelyape-lyape Akaltye: Early Childhood Project* and the Arrernte Curriculum for Year 7 and Year 8. Both initiatives have been groundbreaking in bringing Aboriginal language to mainstream schools. Veronica is the author of *Arrernte Traditional Healing: Arelhe-kenhe Merrethene* (Dobson 2007) and co-compiler of the *Eastern and Central Arrernte to English Dictionary* (Henderson & Dobson 1994). In 2004, the Federation of Aboriginal and Torres Strait Islander Languages (FATSIL) honoured her with a national ‘Language Achievement Award’. In 2011, Veronica was awarded the Member of the Order of Australia (AM).

M KemarreTurner, OAM (Eastern Arrernte)

MK Turner is active in community work and is a strong advocate for keeping language and culture strong. She has worked as a teacher, language specialist and cultural consultant. She has been actively involved in work of the Institute for Aboriginal Development and the Irrkerlantye Learning Centre. She is the author of *Bush Foods: Arrernte Foods from Central Australia (Nhenhe-Areye anwerne-arle arlkweme)* (Turner 2005a) and in 2005 compiled the poster *Everything comes from the Land* (Turner 2005b). MK’s forthcoming title to be published by IAD Press is *Iwenhe Tyerrte – What it means to be Aboriginal*. In 1997, she was awarded an Order of Australia (Australia Medal) for service to the Aboriginal community of central Australia, particularly through preserving language and culture, and interpreting.

Rayleen Brown (Ngangiwumirr/Eastern Arrernte)

Rayleen Brown was born in Darwin, but has lived most of her life in central Australia. In 2000, along with business partner Gina Smith, Rayleen started the catering business ‘Kungkas Can Cook’. She now runs the business solo. The business has an emphasis on bush foods and other local products. Rayleen is a local employer and provides training to Aboriginal secondary students in cookery and hospitality on a voluntary basis. Rayleen contributes many volunteer hours speaking to young people, researchers

and industry representatives. In 2005, Kungkas Can Cook was selected as a showcase Aboriginal enterprise in *Building the future through enterprise: Stories of successful Indigenous enterprises and entrepreneurs* (DEWR & IBA 2005).

Lorna Wilson (Pitjantjatjara)

Lorna is a nationally accredited translator and interpreter and has been involved in language maintenance work for the past 20 years. Lorna is recognised by NAATI as an Interpreter Trainer and has been Chairperson for the NAATI Pitjantjatjara panel for the past 12 years. Lorna has operated her own business 'Kamiku Arangka' for 12 years and many organisations and agencies have utilised Lorna's Pitjantjatjara language and cultural expertise. Lorna has taught the Pitjantjatjara language beginners course at the University of South Australia, Monash University and Hobart TAFE as well as for many organisations in and around Alice Springs. She has also worked as a researcher and consultant for various radio and local, national and international TV programs. Between 2006 and 2008 Lorna was the Senior Language and Cultural Advisor for Big Hart which produced the nationally acclaimed performance 'Ngapartji Ngapartji' and developed an online Pitjantjatjara language course.

Myra (Kanakiya) Ah Chee

Myra was born in Oodnadatta in 1932. She is a Pengarte woman and speaks her grandmother's languages, Arrernte and Luritja. She is also fluent in Pitjantjatjara. In 1940 Myra moved to the Northern Territory with her family. They travelled extensively around the NT until the end of World War Two. In 1945, Myra was taken to Adelaide for school. After completing schooling, Myra returned to Alice Springs as a young woman with her husband and son. In the mid 1970s, Myra worked as a gallery attendant, one of the first Aboriginal people to work in an art gallery in Alice Springs. In the early 1980s, Myra worked as a teacher/trainer at the Institute for Aboriginal Development. She was one of the early language speakers to be qualified through NAATI as an interpreter and examiner. Myra has also done interpreting work at the Alice Springs Hospital over the years.

Bess Price (Warlpiri)

Bess Price was born at Yuendumu. Her first language is Warlpiri. She also knows Luritja and Western Arrarnta. Bess has a Bachelor of Applied Science in Aboriginal Community Management and Development from Curtin University and has worked in education and training, public administration, the media, community development, interpreting, translating and language teaching and has experience in small business management. She has represented central Australia at conferences in Québec; Beijing; and Deerfield, Massachusetts.

Gina Smith (Warumungu)

Gina Smith is a Warumungu woman from the Tennant Creek region and speaks her Warumungu language fluently. Gina is currently employed as the Project Manager for the Australian Red Cross in Tennant Creek. Gina co-founded 'Kungka's Can Cook' with her friend Rayleen Brown. She has worked with Papulu Apparr-Kari in Tennant Creek for over two years as the Economic Development Officer for the Barkly Region. Gina has a Diploma of Arts in Aboriginal Community Administration through the University of South Australia. Gina plays an active role on local boards and committees:

- Deputy Chair of Central Land Council
- President of Julalikari Council Aboriginal Corporation
- Advisor to Minister Jenny Macklin on the Aboriginal Benefits Account
- Councillor for Patta Ward Barkly Shire Council
- Committee member on the Central Australian Aboriginal Family Legal Unit (Alice Springs and Tennant Creek)

- Chairperson of Centrefarm
- Business owner of MAC Indigenous Enterprise – Sharing our differences cultural awareness provider

Maree Meredith (Central Land Council representative)

Maree Meredith worked with the Central Land Council from 2007 to 2009. Before coming to central Australia, Maree worked for the Agency for International Development on overseas aid projects in Papua New Guinea, Thailand and Burma. Her career at the CLC started in the Anthropology section and she now is working more broadly in Aboriginal economic development, more recently within tourism. Aboriginal culture and bush tucker experiences are centrepieces to the tourism industry and Maree's job is to see that appropriate representation and protocols are followed when new ventures are developed on Aboriginal Land.

Researchers

Josie Douglas

Josie Douglas was an Indigenous Research Fellow at Charles Darwin University (Alice Springs campus) at the time of the research, and is now an Aboriginal Research Fellow at CSIRO in Alice Springs. She is descended from the Wardaman people of the south-west Katherine area in the Northern Territory. In addition to her research experience, Josie has an extensive background in Aboriginal publishing. She is particularly interested in the socio-cultural aspects of remote education, IEK and community based micro-enterprises and natural and cultural resource management. Josie has also worked for a number of community-controlled Aboriginal organisations in Alice Springs. She has served terms on the Arts NT Board and the NT Board of Studies.

Fiona Walsh

Fiona Walsh is an Ethnoecologist and Research Scientist with CSIRO. She has worked intensively with Martu, Warlmanpa, Alyawarr and other Aboriginal groups. She coordinated the Central Land Council Land Assessment and Planning Unit from 1993 to 2000. Fiona jointly edited the book *Planning for country: cross-cultural approaches to decision-making on Aboriginal lands* (Walsh & Mitchell 2002). Fiona has been employed by the WA Department of Conservation and Land Management, Argyle Diamond Mines, Kimberly Land Council, Tangentyere Council and other organisations. She has lived and worked in Australian desert and tropical environments for 22 years. Her expertise includes arid zone ecology, desert cultural systems, participatory or community-based facilitation, applied research, Aboriginal customary harvest, natural resource-based enterprises and land management. Her PhD was on customary hunting, harvesting and natural resource management by Martu people on their lands (Walsh 2009).

Specialist consultants

Robynne Quiggin

Robynne Quiggin is descended from the Wiradjuri people from the central west area of NSW. Robynne is solicitor director and principal consultant of her Sydney-based firm Vincent-Quiggin Legal and Consulting Services. Her legal practice specialises in intellectual property, contract, wills, probate and conveyancing. Her consultancy services specialise in the arts, Indigenous Knowledge, biodiversity, consumer issues and social justice issues for Indigenous Australians.

Michael Davis

Michael Davis has a BA Honours degree in History, specialising in Pacific and Aboriginal Studies (La Trobe University 1985) and is completing his doctorate at the University of Technology, Sydney. Michael has extensive practical research and high-level policy experience and recognised expertise in Indigenous knowledge as it relates to biodiversity, natural resource management, cultural heritage, and cultural and intellectual property rights.

Tony Cunningham

Tony Cunningham has lived in Australia since 1991. Tony is an international leader in applied research linking knowledge of local and Indigenous people with formal science. He was President of the International Society for Ethnobiology (ISE) from 1992–1994. He worked on policy related to IEK for Worldwide Fund for Nature (1993) and helped develop the Manila Declaration (1992) on natural products development and IPR. He has worked as an ethnoecologist for 28 years. He is the author or co-author of over 100 scientific papers, books or book chapters including Cunningham (2001). He was awarded the GP Wilder Endowed Chair in Botany at the University of Hawai'i. In 2003, he was awarded the EK Jannaki Medal in India for services to ethnobotany and in 1999 received the Sir Peter Scott Award for Conservation Merit from the IUCN Species Survival Commission for outstanding services to conservation. He is Director of Ethnoecology Services, based in Fremantle, Western Australia.

How these guidelines were compiled

A very early priority of the Reference Group was the development of a set of guidelines for research and development in relation to bush foods and plant products. The disparity between Aboriginal rights and interests in bush foods and the rapid growth of the industry caused great concern to the Reference Group. The main guideline points were developed during Reference Group meetings from 2005 to 2007.

Guideline points were derived from people's direct words and quotes recorded at meetings. In November 2006, Professor Tony Cunningham was invited to facilitate a one-day focus workshop on the protocols. From this workshop, it was recognised that national and international policy equivalents needed to be included.

In December 2007, a draft set of guidelines that included links to the national and international policy context were presented at a workshop Tony Cunningham again attended this second workshop. Robynne Quiggin and Michael Davis were invited to provide expert advice on policy and law. Unlike the workshop in 2006, the 2007 workshop included external stakeholders. Key staff from Desert Knowledge CRC, Desert Knowledge Australia and the Alice Springs Desert Park attended. Local bush food traders were also invited: Outback Bushfoods, Rod Horner, Yuendumu Mining Company and Janet Chisholm. Of these, those based on Alice Springs, Peter Yates and Rod Horner, attended.

Researchers Josie Douglas and Fiona Walsh compiled the guidelines from materials recorded during Reference Group meetings. Section 1 was derived from research led by Fiona. We structured and wrote the guidelines. Assistance was provided by Mitch Jones, Hannah Hueneker and Colleen O'Malley. In August 2009, editorial comments from DKCRC Bush products project leader, Jenny Cleary, were incorporated.

Constructive reviews of these guidelines were provided by Murray McGregor (DKCRC), Cathy Pitkin (CSIRO) and Ashley Sparrow (CSIRO).

In April 2008, MK Turner, Rayleen Brown and Gina Smith from the Reference Group introduced the Reference Group and its purpose to a full Council meeting of the CLC delegates held at Kintore. CLC Directorate and senior management also attended. Reference Group members outlined and demonstrated

national developments in the bush foods industry, then spoke of the development of the guidelines. There was strong interest from delegates in the subject and the bush food products displayed. The following resolution was passed:

That the CLC Council allow the CLC Executive to endorse the bush food guidelines document compiled by the Merne Altyerre-ipenhe Reference Group once the Executive and CLC staff have received the completed guidelines and once the Executive have received advice from CLC staff.

CLC Full Council minutes 2008

In September 2008, some Reference Group members and the researchers accepted invitations to a regional workshop on 'Indigenous Ecological Knowledge and Natural Resources in the Northern Territory'. Eight of 24 workshop participants were from this project and directly contributed from their experience and the guidelines in preparation. These contributions were incorporated into the reports by Holcombe (2009) and Janke (2009).

In March 2010, the guidelines were re-presented to the CLC Executive. In summary to the Executive, it was stated by a senior manager that these guidelines had extensive input and consultations; they inject a strong Aboriginal voice and statement of principles; and they provide a valuable framework for negotiations with bush foods industry operators. Subsequently the guidelines were strongly endorsed by all ten members of the Executive. Thus these guidelines are made public with support from the Central Land Council.

Research organisations

Desert Knowledge Cooperative Research Centre (Desert Knowledge CRC)

<http://www.desertknowledgecrc.com.au/>

The Desert Knowledge CRC and partner agencies undertook a number of research and development subprojects aligned to points along the economic value chain that integrate into a wider project investigating bush products. The research project on Sustainable bush harvest was one of the subprojects and aimed to investigate the environmental, economic, social and cultural sustainability of bush food harvesting and micro-enterprise in central Australia. The bush harvest research project was funded by the Desert Knowledge CRC, with CSIRO and CDU undertaking research in this area. The Reference Group gave guidance to the bush harvest research team, contributed to research and provided a mechanism for Aboriginal governance of the research project. Desert Knowledge CRC provided operational funding for the Reference Group.

Charles Darwin University

Charles Darwin University was a core partner to the Desert Knowledge CRC and a key stakeholder to its research initiatives in desert Australia. The School for Social Policy and Research (SSPR) had a Regional Development theme that sought to extend its social and policy research presence in central Australia. Josie Douglas was employed at CDU in the School for Social Policy and Research (SSPR) from 2005 to 2009. CDU is the largest tertiary institution in the NT, with campuses in Casuarina (Darwin), Palmerston and Alice Springs, and training centres in Katherine, Jabiru, Tennant Creek, Nhulunbuy and Yulara. CDU was formed in 2003 through a merger between the Northern Territory University, Alice Springs-based Centralian College, NT Rural College in Katherine, and the Menzies School of Health Research.

CDU has particular research interests in Aboriginal and Torres Strait Islander and cross-cultural knowledge, tropical knowledge and desert knowledge. Morag McGrath (School of Tourism and Hospitality) and Professor Bob Wasson (Deputy Vice-Chancellor, Research) enabled the provision of targeted funding to the Merne Altyerre-ipenhe (Food from the Creation time) Reference Group to develop these protocols in focused workshops.

CSIRO

<http://www.cse.csiro.au/research/nativefoods/>

The Commonwealth Scientific and Industrial Research Organisation is a Commonwealth statutory authority. It is a national organisation with research flagships and folios in many sectors. It has had a long involvement in plant products and their development. This has included plants such as Macadamia, Quandong, acacias, native citrus, muntries and many other species that have become known to science through Aboriginal and Torres Strait Islander knowledge and were possibly shaped by Aboriginal and Torres Strait Islander practices. In the late 1990s, CSIRO research gave increasingly stronger recognition to indigenous interests in plant resources particularly through the efforts of Maarten Ryder and others. In the early 2000s, CSIRO began its systematic strategy to improve the engagement of indigenous people across the organisation. In part, this included research directed to improve Indigenous Livelihoods. The Alice Springs research team has had a primary and front-line role in the challenges of bridging cross-cultural research in desert Australia. CSIRO was a lead partner agency to the Desert Knowledge CRC.

Central Land Council

<http://www.clc.org.au/>

The Central Land Council is a Commonwealth statutory authority established under the *Aboriginal Land Rights (Northern Territory) Act 1976* and a Native Title Representative Body (NTRB) under the *Native Title Act 1993*. It is first and foremost a representative organisation for the Aboriginal people in the southern NT. It has a suite of statutory functions under both Acts which include the provision of land and natural resource management services. Customary use of bush foods and Aboriginal knowledge of bush foods is integral to several CLC projects and it has contributed with a staff person as a member of the Reference Group for this project (see CLC 2007). CLC was also a partner to the Desert Knowledge CRC.

Additional information and reference list

Additional information

For additional information on guidelines and ethical conduct when conducting research with Aboriginal people or on Aboriginal lands, the following should be consulted and used:

Smallacombe S, Davis M and Quiggin R. 2006. *Scoping Project on Aboriginal Traditional Knowledge*, DKCRC Report 22, Desert Knowledge Cooperative Research Centre, Alice Springs.
<http://www.desertknowledgecrc.com.au>

Three reports commissioned by the the Natural Resource Management Board (NT) for dealing with Indigenous cultural and intellectual protocols for Indigenous ecological management in the Northern Territory:

Holcombe S. 2009. *Indigenous Ecological Knowledge and Natural Resources in the Northern Territory: Guidelines for Indigenous Ecological Knowledge Management (including archiving and repatriation)*. National Centre for Indigenous Studies, ANU, in collaboration with Jumbunna Indigenous House of Learning (Michael Davis), UTS and Terri Janke and Company Pty Ltd. A report commissioned by the Natural Resources Management Board (NT) Component 1 (of 3). Canberra.

Davis M. 2009. *A handbook for working with Indigenous Ecological Knowledge and Intellectual Property*. A report commissioned for the Natural Resource Management Board (NT). Darwin.

Janke T. 2009. *Indigenous Ecological Knowledge and natural resources in the Northern Territory: report on the current status of Indigenous intellectual property*. Terri Janke and Company Pty Ltd, A report commissioned by the Natural Resources Management Board (NT) Component 3 of 3. In collaboration with National Centre for Indigenous Studies, ANU (Sarah Holcombe) and Jumbanna Indigenous House of Learning (Michael Davis) UTS. <http://www.terrijanke.com.au/>.

AIATSIS. 2000. *Guidelines for ethical research in indigenous studies*. Australian Institute for Aboriginal and Torres Strait Islander Studies Canberra.

NHMRC. 2003. *Values and Ethics: Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research*. National Health and Medical Research Council. Commonwealth of Australia, Canberra. www.nhmrc.gov.au.

NHMRC. 2007. *National Statement on Ethical Conduct in Human Research*. National Health and Medical Research Council. Commonwealth of Australia, Canberra. www.nhmrc.gov.au.

Orr M, Kenny P, Gorey IN, Mir A, Cox E, Wilson J. 2009. *Desert Knowledge Cooperative Research Centre Aboriginal Knowledge and Intellectual Property Protocol: Community Guide*. Desert Knowledge Cooperative Research Centre, Alice Springs. <http://www.desertknowledgecrc.com.au>

Reference list

- AIATSIS. 2000. *Guidelines for ethical research in indigenous studies*. Australian Institute for Aboriginal and Torres Strait Islander Studies. Canberra.
- Altman J. 2005. Economic futures on Aboriginal land in remote and very remote Australia: hybrid economies and joint ventures. In *Culture, economy and governance in Aboriginal Australia*. D Austin-Broos and G Macdonald, Eds. Academy of the Social Sciences in Australia and the Department of Anthropology, University of Sydney. Sydney.
- Alyawarr speakers from Ampilawatja, Fiona Walsh and Josie Douglas. 2009. *Angka Akatyerr-akert: A Desert raisin report*. Desert Knowledge Cooperative Research Centre. Alice Springs.
- Armstrong Muller Consulting. 2008. *South Australian native foods industry report*. Armstrong Muller Consulting Pty Ltd. Adelaide.
- Bryce S. 1992. *Women's gathering and hunting in the Pitjantjatjara Homelands*. IAD Press. Alice Springs.
- Bryceson KP. 2008. *Value chain analysis of bush tomato and wattle seed products*. DKCRC Research Report 40. Desert Knowledge Cooperative Research Centre, Alice Springs.
- Commonwealth of Australia. 1976. *Aboriginal Land Rights (Northern Territory) Act*. Commonwealth of Australia. Commonwealth Consolidated Acts. http://www3.austlii.edu.au/au/legis/cth/consol_act/alrta1976444/.
- Commonwealth of Australia. 2007. Indigenous art: Securing the future, Australia's Indigenous visual arts and craft sector. Senate Standing Committee on Environment, Communications and the Arts. Commonwealth of Australia. Canberra. pp 234. http://www.aph.gov.au/senate/committee/ecita_Ctte/completed_inquiries/2004-07/Indigenous_arts/report/index.htm
- CLC (Central Land Council). 2005. *Protocol for environment and conservation activities*. Central Land Council. Alice Springs. www.clc.org.au/media/publications/protocols/.
- CLC (Central Land Council). 2007. *Central Land Council Annual Report 2006–2007*. Central Land Council. Alice Springs.
- Cleary J. 2009. *Perspectives on developing new cooperative arrangements for bush-harvested bush tomatoes from desert Australia*. DKCRC Working Paper 48. Desert Knowledge CRC, Alice Springs.
- Cleary J, Grey-Gardner R and Josif P. 2009. *Hands Across the Desert: Linking desert Aboriginal Australians to each other and to the bush foods industry*. Report to Department of Agriculture, Fisheries and Forestry by Desert Knowledge Cooperative Research Centre. Desert Knowledge CRC. Alice Springs.
- CTUIR (Confederated Tribes of the Umatilla Indian Reservation). 2008. *2008 Annual report Confederated Tribes of the Umatilla Indian Reservation*. <http://www.umatilla.nsn.us/2008%20CTUIR%20Annual%20Report.pdf>.
- Cunningham AB. 2001. *Applied ethnobotany: People, wild plant use and conservation*. Earthscan Publications. London.
- Cunningham AB, Garnett S, Gorman J, Courtney K and Boehme D. 2008. Eco-enterprises and *Terminalia ferdinandiana*: “best laid plans” and Australian policy lessons. *Economic Botany* **63** (1): 16–28.
- Cunningham AB, Garnett S and Gorman J. 2009. Policy lessons from practice: Australian bush products for commercial markets. *GeoJournal* **74**: 429–40.
- Davies J. 2008. ‘Critical understandings from land management systems for ‘closing the gap’ in desert Australia’. Unpublished extended abstract for stakeholder briefing (FaCHSIA). Paper presented at FaCHSIA Policy Think Tank. Canberra. 12 September, 2008.

- Davis M. 2009. *A handbook for working with Indigenous Ecological Knowledge and Intellectual Property*. A report commissioned for the Natural Resource Management Board (NT). Darwin.
- De Sousa Majer M, Singh Z, De Lima F, Ryder M. 2009. *Sustainable Bush Produce Systems: Post-harvest storage of Solanum centrale and impact on produce quality*. DKCRC Report 46, Desert Knowledge CRC, Alice Springs.
- DEWR & IBA (Department of Employment and Workplace Relations and Indigenous Business Australia). 2005. *Building The Future Through Enterprise Stories of Successful Indigenous Enterprises and Entrepreneurs*. Commonwealth of Australia, Canberra.
- DKCRC (Desert Knowledge CRC). 2003. *Indigenous intellectual property protocol*. Desert Knowledge Cooperative Research Centre. Alice Springs. from <http://www.desertknowledge.com.au/resource/DKCRC%20%20Indigenous%20IP%20Protocol.pdf#search=%22intellectual%20property%20protocol%22>.
- DKCRC (Desert Knowledge CRC). 2007. *Aboriginal engagement: schedule of rates for Aboriginal workers in research*. Desert Knowledge CRC. Retrieved 2008, from <http://www.desertknowledgecrc.com.au/socialscience/engagement.html>.
- DKCRC (Desert Knowledge CRC). 2008. *Desert Knowledge CRC Protocol for Aboriginal Knowledge and Intellectual Property* Desert Knowledge Cooperative Research Centre. Alice Springs. from <http://www.desertknowledgecrc.com.au/socialscience/downloads/DKCRC-Aboriginal-Intellectual-Property-Protocol.pdf>.
- Dobson VP. 2007. *Arlhe-kenhe Merrethene: Arrernte traditional healing*. IAD Press, Alice Springs.
- Dobson VP (presenter), Walsh Fiona (director) and Sati Wiriya (producer). 2008. *Anpernrrentye: Relationships between bush foods, creation laws, people, country and all things, illustrated by three plants*. Desert Knowledge CRC and CSIRO. DVD 13'22''. <http://www.desertknowledgecrc.com.au/researchimpact/enduserpublications.html>.
- Dobson V, Walsh F, Merne Altyerre-ipenhe and Douglas J. 2008. *Anpernrrentye: Relationships between Bush foods, Creation Laws, People, Country and All things, illustrated by three plant species*. *Desert Knowledge Symposium 2008*. Desert Knowledge CRC. Retrieved 16/12/08, 2008, from <http://www.desertknowledgecrc.com.au/publications/conferencepresentations.html>.
- Dobson V, Walsh F and Douglas J. 2009. Anpernrrentye (Relationships between people, plants, laws and all things): Arrernte values in landscapes and iconic bush food species. In *Proceedings Theme: Linking science with the arts-social and cultural aspects of restoration Sub Theme: community involvement in restoration, Perth, Society for Ecological Restoration International (SERI) World Conference*, August 23–25 2009. from <http://www.desertknowledgecrc.com.au/publications/conferencepresentations.html>.
- Douglas J and Walsh F. 2008. Research governance – convening the Merne Altyerre-ipenhe (Food from the Creation time) Reference Group In *Indigenous community engagement at Charles Darwin University*. M Campbell and M Christie, Eds. Uniprint NT, Darwin: 36–37. from http://www.cdu.edu.au/centres/spil/publications_ijlsc.html.
- Evans L. 2009. *Recording Indigenous knowledge on electronic databases*. DKCRC Working Paper 33. Desert Knowledge CRC, Alice Springs.
- Evans L and Muir K. 2009. *Plants for People: Intellectual property rights for traditional owners about plants: Background paper with specific reference to Australian Aboriginal peoples and plants*. presented to DKCRC, May 2007, Desert Knowledge CRC. Alice Springs.
- FCA (Federal Court of Australia). 1999. 9 September 1999 Hayes v Northern Territory [1999] FCA 1248 (9 September 1999) Federal Court of Australia. Retrieved 18/11/08, from http://www.austlii.edu.au/au/cases/cth/federal_ct/1999/1248.html.
- Forum for Food Sovereignty. 2007. *Declaration of the Forum for Food Sovereignty, Nyeleni*. Retrieved 2009, from http://www.foodsovereignty.org/public/new_attached/49_Declaration_of_Nyeleni.pdf.
- Gerritsen R. 2008. *Australia and the origins of agriculture*. Archaeopress, Oxford.

- Henderson J and Dobson V. 1994. *Eastern and Central Arrernte to English dictionary*. IAD Press, Alice Springs.
- Holcombe S. 2009. *Indigenous Ecological Knowledge and Natural Resources in the Northern Territory: Guidelines for Indigenous Ecological Knowledge Management (including archiving and repatriation)*. National Centre for Indigenous Studies, ANU, in collaboration with Jumbunna Indigenous House of Learning (Michael Davis), UTS and Terri Janke and Company Pty Ltd. A report commissioned by the Natural Resources Management Board (NT) Component 1 (of 3). Canberra.
- Hoogenraad, R. and Thornley, B. 2003. *Aboriginal languages of central Australia and the places where they are spoken*. Jukurrpa Books (IAD Press), Alice Springs.
- Horner, R. 2001. *Wild harvest*. In Proceedings Bush food workshop, Centralian College, Alice Springs, Northern Territory Government Desert Knowledge. 3 pp.
- IAD Press. 2002. *Central Australian Aboriginal languages – current distribution; A2 map*. Institute for Aboriginal Development, Alice Springs.
- ISE (International Society of Ethnobiology). 2006. *International Society of Ethnobiology Code of Ethics (with 2008 additions)*. International Society of Ethnobiology. from http://ise.arts.ubc.ca/global_coalition/ethics.php.
- James D. 2006. Kinship with country: Acts of translation in the cross-cultural performance space. A case study on the Anangu Pitjantjatjara lands of central Australia. Ph. D. Australian National University, Canberra.
- Janke T. 2009. *Indigenous Ecological Knowledge and natural resources in the Northern Territory: report on the current status of Indigenous intellectual property*. Terri Janke and Company Pty Ltd, A report commissioned by the Natural Resources Management Board (NT) Component 3 of 3. In collaboration with National Centre for Indigenous Studies, ANU (Sarah Holcombe) and Jumbunna Indigenous House of Learning (Michael Davis) UTS. Retrieved 23/12/09, from <http://www.terrijanke.com.au/>.
- Keen I. 2004. *Aboriginal economy and society: Australia at the threshold of colonisation*. Oxford University Press, Oxford, Melbourne, New York.
- Laramba Women and Green J. 2003. *Anmatyerr Ayey Arnang-akert Anmatyerr Plant Stories*. IAD Press. Alice Springs.
- Latz P. 1995. *Bushfires and bushtucker: Aboriginal plant use in central Australia*. IAD Press. Alice Springs.
- McNeel J. 2009. Culture and natural resources unite on Umatilla Reservation. *Indian Country Today*, Retrieved 24/12/09, from <http://www.indiancountrytoday.com/national/northwest/48620297.html>.
- Mellor D and Janke T. 2001. Valuing art, respecting culture: Protocols for working with the Australian Indigenous visual arts and craft sector. NSW National Association for the Visual Arts Ltd. Sydney. pp. 106 http://www.terrijanke.com.au/documents/ValuingArt_RespectingCulture.pdf
- Morse J. 2005. *Bush resources: opportunities for Aboriginal enterprise in Central Australia*. Report 2. Desert Knowledge CRC and Central Land Council. Alice Springs. from <http://www.desertknowledgecrc.com.au/publications/downloads/rep-2bush-foodsv311sept06-with-cover.pdf>.
- NHMRC (National Health and Medical Research Council). 1991. *Guidelines on Ethical Matters in Aboriginal and Torres Strait Islander Health Research*. National Health and Medical Research Council. Canberra.
- NTG (Northern Territory Government). 2001. *Desert knowledge bush food workshop*. Northern Territory Government, Desert Knowledge, Alice in Ten. Alice Springs.
- Orr M, Kenny P, Gorey IN, Mir A, Cox E, Wilson J. 2009. *Desert Knowledge Cooperative Research Centre Aboriginal Knowledge and Intellectual Property Protocol: Community Guide*. Desert Knowledge Cooperative Research Centre, Alice Springs. <http://www.desertknowledgecrc.com.au>

- Palombi L. 2009. *ARC TK IP project: Indigenous economic development workshop report, Mercure Hotel, Broome, WA, August 27–28 2009*. Australian National University, Regulatory Institutions Network. Canberra.
- PAW Media. 2010. *Warlpiri Media Association*. Pintupi, Anmatyerr and Warlpiri (PAW) Media and Communications. Retrieved 14/2/10, from <http://www.warlpiri.com.au/home.htm>.
- Pawu-Kurlpurlurnu WJ, Holmes M and Box L. 2008. *Ngurra-kurlu: A way of working with Warlpiri people*, DKCRC Report 41. Desert Knowledge CRC, Alice Springs.
- Pimbert M. 2008. *Towards Food Sovereignty. Reclaiming autonomous food systems*. IIED (International Institute for Environment and Development). London.
- Quiggin R. 2007. 'Bush foods protocol: some legal issues'. Presentation to Merne Altyerr-ipenhe (Food from the Creation time) Reference Group, Charles Darwin University, Alice Springs, 11 Dec 2007.
- Rowley KG, O'Dea K, Anderson I, McDermott R, Saraswati K, Tilmouth R, Roberts I, Fitz J, Wang Z, Jenkins A, Best JD, Wang Z and Brown A. 2008. Lower than expected morbidity and mortality for an Australian Aboriginal population: 10-year follow-up in a decentralised community. *Medical Journal of Australia* **188** (5): 283–87.
- Ryder M. 2009. Preliminary results of horticultural production trials of *S. centrale*. In *Sustainable bush produce systems*. M Ryder, F Walsh, J Douglas, M Waycott, H Robson, Z Singh, M Majer, T Collins, J White and B Cheers, Eds. DKCRC Working Paper 31. Desert Knowledge CRC, Alice Springs: 50–59.
- Ryder M, O'Hanlon M, Hawke B and Karkkainen M. 2009. Steroidal glycoalkaloids in the fruit of *Solanum centrale*. In *Sustainable bush produce systems*. M Ryder, F Walsh, J Douglas, M Waycott, H Robson, Z Singh, M Majer, T Collins, J White and B Cheers, Eds. DKCRC Working Paper 31. Desert Knowledge CRC, Alice Springs: 68–73.
- Ryder M, Walsh F, Douglas J, Waycott M, Robson H, Singh Z, De Sousa Majer M, Collins T, White J and Cheers B. 2009. *Sustainable bush produce systems: Progress Report 2004–2006*, DKCRC Working Paper 31, Desert Knowledge CRC, Alice Springs.
- Sanders R. 2004. *Landmark agreement between Samoa and UC Berkley could help search for AIDS cure*. 29 September. UC Berkeley News. Retrieved 3/2010, from http://berkeley.edu/news/media/releases/2004/09/29_samoa.shtml.
- SCBD (Secretariat for the Convention on Biological Diversity). 2009. *Bonn guidelines on access to genetic resources and fair and equitable sharing of the benefits arising from their utilization*. SCBD, United Nations Environment Program (UNEP). Retrieved September, 2009, from <http://www.cbd.int/abs/intro.shtml>.
- Shanley P, Pierce AR, Laird SA and Guillen A. Eds. 2002. *Tapping the Green Market: Certification and management of non-timber forest products*. People and Plants Conservation Series. Earthscan Publications, London.
- Smallacombe S, Davis M and Quiggin R. 2006. *Scoping Project on Aboriginal Traditional Knowledge*, DKCRC Report 22, Desert Knowledge Cooperative Research Centre, Alice Springs. <http://www.desertknowledgecrc.com.au>.
- Songman Circle. 2004. *Songman Circle of Wisdom Indigenous Plant Certification Protocol*. The Songman Circle of Wisdom. Western Australia.
- Tauli-Corpuz V. 2001. Biotechnology and indigenous peoples. In *Redesigning Life? The Worldwide challenge to genetic engineering*. B Tokar, Ed. Zed Books. London: 252–70.
- Toohy J. 1980. *Anmatjirra and Alwawarra land claim to the Utopia pastoral lease. Report by the Aboriginal Land Commissioner, Mr Justice Toohey, to the Minister for Aboriginal Affairs and the Administrator of the Northern Territory*. Australian Government Publishing Service. Canberra.
- Turner MK. 2005a. *Bush Foods: Arrernte Foods from Central Australia*. IAD Press. Alice Springs.

- Turner MK. 2005b. *Everything comes from the Land*. IAD Press. Alice Springs.
- Turner N, Gregory R, Brooks C, Failing L and Satterfield T. 2008. From invisibility to transparency: identifying the implications. *Ecology and Society* **13** (2): art 7, 14pp.
- Vincent A. 2009. *Information = power: Wild harvesters from Ampilawatja travel along the bush tomato value chain*. Desert Knowledge Cooperative Research Centre. Alice Springs. from <http://www.desertknowledgecrc.com.au/publications/>.
- Voumard, J. 2000. *Commonwealth public enquiry into access to biological resources in Commonwealth areas*. Environment Australia, Commonwealth of Australia. Canberra. from <http://www.environment.gov.au/biodiversity/publications/inquiry/index.html>.
- Walsh FJ. 2009. 'To hunt and to hold': Martu Aboriginal people's uses and knowledge of their country, with implications for co-management in Karlamilyi National Park and the Great Sandy Desert, Western Australia. Ph.D. Schools of Social and Cultural Studies (Anthropology) and Plant Biology (Ecology), The University of Western Australia. <http://www.desertknowledgecrc.com.au/publications/dkcrc-0752>
- Walsh F and Mitchell P. Eds. 2002. *Planning for country: cross-cultural approaches to decision making on Aboriginal lands*. Jukurrpa Books/IAD Press, Alice Springs.
- Walsh F and Douglas J. 2009. Harvester-trader exchanges: Critical elements of small-scale commercial bush produce harvesting in central Australia sustained to at least 2006. In *Sustainable bush produce systems*. M Ryder, F Walsh, J Douglas, M Waycott, H Robson, Z Singh, M Majer, T Collins, J White and B Cheers, Eds. DKCRC Working Paper 31. Desert Knowledge CRC, Alice Springs.
- Walsh F, Dobson VP and Douglas J. (in press) Anpernternte (Arrernte relationships between plants and all things): An Aboriginal knowledge framework and social-ecological resilience, *Ecology and Society* special edition 'indigenous ecological knowledge and western science' <http://www.ecologyandsociety.org/index.php>.
- Warlukurlangu Artists. 1992. *Kuruwarri Yuendumu Doors*. Aboriginal Studies Press. Canberra.
- Waycott M, Robson H, Luly J, Holtum J and Collins T. 2009. *Solanum centrale* genetics and plant improvement. In *Sustainable bush produce systems*. M Ryder, F Walsh, J Douglas, M Waycott, H Robson, Z Singh, M Majer, T Collins, J White and B Cheers, Eds. DKCRC Working Paper 31. Desert Knowledge CRC, Alice Springs: 60–67.
- Welford L and Le Breton G. 2008. Bridging the gap: Phytotrader Africa's experience of the certification of natural products. *Forests, Trees and Livelihoods* **18**: 69–79.
- Whitehead PJ, Gorman J, Griffiths AD, Wightman G, Massarella H and Altman J. 2006. *Feasibility of small scale commercial native plant harvests by indigenous communities*. Charles Darwin University, Greening Australia, Northern Territory Government, Centre for Aboriginal Economic Policy. Darwin.
- Wikipedia.2010. *Sui generis*. Wikipedia. the Free Encyclopedia. Retrieved 28/3/10, from http://en.wikipedia.org/wiki/Sui_generis.
- Wright F and Morphy F. Eds. 2000. *The art and craft story: a survey of thirty-nine Aboriginal community art centres in remote Australia, undertaken by Desert Inc*. Aboriginal and Torres Strait Islander Commission. Canberra.

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