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The contribution of taewa (Maori potato) production to  
Maori sustainable development

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A dissertation  
submitted in partial fulfilment  
of the requirements for the Degree of  
Master of Applied Science  
in International Rural Development

at

Lincoln University

By

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Lincoln University

2007

Abstract of a dissertation submitted in partial fulfilment of the requirements for the Degree of M.Appl.Sc.

## **The contribution of taewa (Maori potato) production to Maori sustainable development**

**By Turi R. McFarlane**

Indigenous peoples in many countries have come under increasing pressure to engage in 'successful development' as defined by outsiders. Frequently, traditional 'Western' models for development are imposed on indigenous communities where 'success' is measured by the realisation of economic outcomes. However, the Maori participants of this research have a broader, holistic appreciation of development, whereby well-being, is strongly influenced by cultural assets, the application of Maori values, a strong sense of cultural identity and the retention and use of Maori knowledge, in addition to economic outcomes. Maori sustainable development is a term reflecting these aspirations of contemporary Maori.

The dissertation explores the relationships between taewa production and contemporary appreciations of Maori sustainable development. A case study of taewa growers associated with the Tahuri Whenua national vegetable growers collective was the focus of the qualitative research. The research provided insight into the livelihood outcomes associated with taewa production and explored these within a holistic appreciation of Maori development and well-being.

The research has shown that taewa production contributes towards Maori sustainable development for growers in this case study, facilitating and enhancing growers' appreciations of well-being. Growers have related the significant relationship they share with taewa as being more than just about the physical crop. Taewa are a taonga which have been passed down through generations, and facilitate an important link between the people and the land.

Taewa strengthen a relationship with this most precious resource, founded in whakapapa and fostered through care and nurture.

Growers in this case study have prioritised the application of traditional Maori values such as manaakitanga (hospitality, giving) and whanaungatanga (kinship, togetherness) realised through taewa production. These intangible livelihood outcomes represent integral considerations contributing towards the well-being of these growers. Tangible aspects such as the realisation of economic outcomes are also associated with taewa production, and while these aspects are not necessarily prioritised by the growers in this case study, the growers acknowledge the need to be economically sufficient and recognise the opportunities taewa production can provide. Growers recognise the positive contributions taewa production can make and are motivated to use their knowledge and experience in this area to contribute towards the well-being of future generations.

Cultural assets have been shown to be particularly relevant and significant in this context. A Maori worldview relates everything through whakapapa which is the foundation of Maori identity. Therefore, culture pervades all aspects of Maori livelihoods and influences the way in which other livelihood assets can be realised.

**Keywords:**

Taewa, Maori potato, Maori, indigenous, Maori sustainable development, Kaupapa Maori Research, sustainable livelihood, social/cultural capital, wellbeing.

## Acknowledgements

First and foremost I would like to thank Yahushua ha'Moshiach – my light throughout this journey and salvation in this world.

Many thanks to my supervisor Dr Miranda Cahn, your encouragement, insight and perspective is much appreciated.

Nick Roskruge, really my thanks is for more than just your help with this work but also the experiences and life-skills that you have shared with me. Your words relating to my own whakapapa and Te Ati Awa heritage will not be lost.

To the growers of Tahuri Whenua, whose lives I have been a part of and been so warmly welcomed into; Naku ano ra tonu whakaironga o nga taewa enei - e mihi ana ki a koutou. Ka nui te aroha ki a koutou. Kia ora no tatou katoa.

Special aroha to my parents Rob and Robyn and brother Jade. Thanks for always being there for me. Your encouragement, support, guidance and prayers have made all this possible. I hope this makes you proud. Know that you are apart of it. My greater whanau – especially Grandma and Nana, thanks heaps for your continued support and interest in my studies.

Finally, to my Maori brothers and sisters – e nga koroua me nga kuia o nga iwi katoa o Aotearoa, tena koutou. I hope this work encourages, motivates and empowers you in this new day of struggles and opportunities.

Kia ora koutou katoa.

Na ka waiata ratou i te waiata hou, ka mea, Pai tonu koe hei tango i te pukapuka, hei wahi i ona hiri: i whakamatea hoki koe, a hokona ana matou e koe hei hunga ma te Atua ki ou toto, i roto i nga hapu, i nga reo, i nga huihuinga tangata, i nga iwi katoa;

*Whakakitenga 5: 9*



Taewa Maori (Source: Roskruge, N., Massey University, 2007).

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## Glossary

Note: New Zealand has two official languages, Te Reo Maori and English. Maori words are not italicised. To assist readers, a glossary of Maori words and concepts is provided. Many of the words are used both in singular and plural form.

Aotearoa	New Zealand – <i>‘the land of the long white cloud’</i>
Aroha	love
Aruhe	fern-root, bracken
Atua	god
Aute	paper mulberry
Hapai	uplift
Hapu	sub-tribe
Hawaiki	the original homeland of Maori
Hue	gourd
Hui	meeting, gathering
Iwi	tribe
Kaanga	corn, maize
Kai	food
Kamokamo	squash, marrow
Karakia	prayer
Kaumatua	elder man
Kaupapa	rationale, reason, purpose, topic
Kaupapa Maori	Maori epistemologies
Kawanatanga	governance
Kotahitanga	unity
Kuia	elder woman
Kumara	prized Maori food, sweet potato
Mahetau	Maori potato
Mahi	work
Manaaki	care, look after, host
Manaakitanga	the act of caring, hospitality, kindness

Mana motuhake	autonomy, authority
Maori	indigenous people of New Zealand
Maoritanga	Maori culture
Mara	garden
Marae	formal Maori meeting venues
Matauranga	knowledge
Mauri	life essence, life force
Mokopuna	grandchildren, great grandchildren
Pakeha	non-Maori New Zealanders
Papatuanuku	earth mother
Parareka	Maori potato
Peruperu	Maori potato
Pono	truth
Poroporo	purple
Rangatahi	young people
Rangatira	Maori chief
Ranginui	sky father
Riwai	potato, Maori potato
Runanga	assembly, group
Taewa	Maori potato
Tahuri whenua	'returning to the land'
Tane	man, Maori god of the forests
Tangata	person
Tangata whenua	people of the land
Taonga	prized possession, treasure
Tautoko	support
Te Ao Maori	the Maori world
Te Ao Po	the nether world
Te reo Maori	the Maori language
Te taha hinengaro	mental / psychological well-being
Te taha tinana	physical well-being
Te taha wairua	spiritual / metaphysical well-being
Te taha whanau	family / social well-being
Te Tiriti o Waitangi	The Treaty of Waitangi

Tika	integrity, correct
Tikanga	protocol and customary practice
Tino rangatiratanga	full authority, absolute chieftainship
Tipuna	ancestor
Tuna	eel
Tupuna	ancestor
Turangawaewae	home, ancestral area or marae
Tuturu	original, important, staunch or strong
Uhikaho	yam
Wairua	spirit
Wairuatanga	spirituality
Waitangi	place where the Treaty of Waitangi was signed in 1840, Bay of Islands
Waka	canoe
Whakaaro	thinking, thoughts, intention, opinion
Whakapapa	ancestral connections, genealogy
Whakaponu	trust
Whakatauki	proverb, traditional saying
Whanau	family
Whanaungatanga	kinship
Whakawhanaungatanga	the act of kinship
Whare	house
Whenua	land, placenta

## **Abbreviations and Acronyms**

DEFRA	Department for Environment, Food and Rural Affairs (UK)
DFID	Department for International Development (UK)
KMR	Kaupapa Maori Research
SL	Sustainable Livelihoods
SLA	Sustainable Livelihoods Approach
Tahuri Whenua	Tahuri Whenua Incorporated Society
UK	United Kingdom
WCED	World Commission on Environment and Development

# Chapter 1: Introduction

## 1.1 Background

Before the primary settlement of Aotearoa, New Zealand by Europeans, around 1840, the taewa was a staple food crop of the Maori people. Commonly known as Maori potatoes, taewa (*Solanum spp.*) are also referred to by a number of generic names which vary according to tribal dialect around the country (peruperu, parareka, mahetau and riwai). There are a number of different beliefs regarding the origin of taewa in New Zealand and the route they took to get here. Many Maori believe that there were cultivars of taewa here before European explorers; however it is acknowledged that a number of varieties arrived with the first European explorers such as Cook in 1769 and subsequently with visiting whalers and sealers in the latter part of the eighteenth century (Roskruge, 1999: 1).

Taewa or Maori potato ultimately replaced (or displaced) traditional crops such as kumara and aruhe (fern-root) as the primary carbohydrate and subsistence crop produced by Maori for their own use (Yen, 1961; Hargreaves, 1963), some calling it the *“greatest gift of the European to the Maori agriculturalist... which by 1835 was much more in use than any native vegetable”* (Hargreaves, 1963: 103). However, with the introduction of preferred varieties from England and Australia during the latter part of the nineteenth century, many earlier taewa became relegated to the gardens of marae (formal Maori meeting venues) and have largely been grown in this typically non-commercial fashion until recent times.

Despite the significant drop-off in taewa production through time, the importance of this horticulture in Maori society cannot be underestimated. In their subsistence economy, communal societies such as pre-European Maori viewed crop production as an integral part of the survival of the community. Roskruge (1999: 30) identifies several key points concerning the social aspects of producing taewa crops for Maori:

- Whakapapa (genealogy and creation)
- Whanaungatanga (kinship, family relations)
- Wairuatanga (spirituality)
- Manaakitanga (hospitality, kindness)
- Tikanga (customs and habits)
- Economic survival

These aspects are as pertinent in Maori society today as they were in the eighteenth and nineteenth centuries, and it is necessary to understand the concepts of whakapapa, whanaungatanga, wairuatanga, manaakitanga and tikanga to fully comprehend the importance of horticulture in Maori society. Appreciating the significance of traditional horticulture such as taewa in Maori society, leads to questions concerning how such practices can contribute to Maori sustainable development.

## **1.2 Tahuri Whenua Incorporated Society**

Tahuri Whenua Incorporated Society is a Maori vegetable growers' collective which was established to represent Maori interests nationally throughout the vegetable sector of New Zealand. This extends through the horticulture industry, from crop production through to marketing; including training and education (Tahuri Whenua Incorporated Society, 2005: 5). Importantly, much of this involvement includes the promotion of traditional Maori crop production such as taewa. Tahuri Whenua<sup>1</sup> plays an important role in this research process, with participants from the collective used in the case study analysis.

Initially it is important to appreciate that Tahuri Whenua acknowledges Maori as horticulturalists, relating this through whakapapa at the very origins of the Maori people (Tahuri Whenua Incorporated Society, 2005: 1). Tahuri whenua literally means – 'returning to the land', which perhaps most clearly and concisely describes the collective's aspirations for Maori throughout Aotearoa-New Zealand.

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<sup>1</sup> Tahuri Whenua Incorporated Society now referred to as solely Tahuri Whenua.



### **1.3 No hea koe?**

Literally, “where are you from?” is a question that many Maori will ask when first meeting each other. From a Maori perspective this inquiry relates to a person’s turangawaewae (home, ancestral area or marae) and whakapapa. No hea koe? encapsulates the very essence of who you are and what has contributed to your being. My research methodology is based around the Kaupapa Maori Research (KMR) approach which emphasises and reinforces the need to establish who you are and where you have come from. In this preface I declare myself to the reader, sharing my background, perspectives and where I have come from.

Who I am relates to my whakapapa. My father and mother were raised in South-Canterbury and Christchurch respectively, before collectively moving to Awa Iti (Little River), Horomaka (Banks Peninsula). My mother is of Pakeha descent, while my father is Maori, of Te Ati Awa (Motueka) and Ngai Tahu (Moeraki) iwi (tribes). My brother, two years younger, and I are the only children in our immediate whanau (family).

I was raised in a rural setting, where much of my inherent links and relationship with the whenua (land) were nurtured. By means of secondary and tertiary study I have furthered this relationship, pursuing studies in agricultural and environmental disciplines. This course of study has truly opened my eyes to the realities – both challenges and opportunities associated with development initiatives abroad and in Aotearoa.

I am grateful for the environment of encouragement and support which my whanau has provided. Faith has been a cornerstone of my upbringing, and my perspectives of life and aspirations in life reflect my Messianic-Israeli beliefs. Acknowledging my Elohim (G-d) and Messiah is a conscious reality and a joy which has become evermore real in my journey through life.

## **1.4 Reasons for research**

The motivation for this research has sprung from an interest in the history of development approaches associated with indigenous peoples, particularly concerning Maori. I have become increasingly aware of the shortcomings associated with traditional foreign development frameworks used to promote 'development' with indigenous peoples, which have often lead to unsatisfactory outcomes. Currently there is a growing body of research which identifies Maori sustainable development as a unique perspective to development initiatives, addressing specific needs and considerations of Maori. By exploring how taewa production contributes to appreciations of Maori sustainable development I hope to add to a pool of knowledge which can help reaffirm practices and appreciations which positively contribute to Maori wellbeing. This study is about exploring the traditional gifts and produce of the whenua and realising what the associated outcomes have to offer contemporary Maori.

## **1.5 Statement of aim**

The aim of this research is to determine how growing taewa contributes to Maori sustainable development.

The research considers Maori taewa growers associated with Tahuri Whenua Incorporated Society, exploring the influence taewa production has for these growers and how this contributes towards appreciations of Maori sustainable development.

## **1.6 Research Questions**

- How is Maori sustainable development defined by taewa growers in Tahuri Whenua, and what aspects are most important to them?
- Why do members of Tahuri Whenua grow taewa (including social/cultural, economic, environmental and other aspects)?

- What are the relationships between growing taewa and Maori sustainable development?

## **1.7 Structure of dissertation**

Chapter 2 provides the background and context of this research through a review and analysis of relevant literature. This chapter first describes a history of Maori development from the first beginnings of a Maori people in Aotearoa - New Zealand. It then considers Maori world views; relating the importance and relevance of key concepts and understanding associated with whakapapa and Maori values. Traditional development theory and practice is then described, in relation to the effectiveness and relevance of such theories to the aspirations of indigenous societies such as Maori. The sustainable livelihoods approach is also described as it applies to Maori society and well-being. Further description elaborates on the meanings of social and cultural assets, and contemporary appreciations of Maori sustainable development.

Chapter 3 outlines the research methodology, identifying theoretical discourses that have informed the research and the choice of methods used. The constraints within the research process are then presented, followed by ethical considerations.

Chapter 4 presents the results of interviews with taewa growers, and relates their views concerning the contribution of taewa production to Maori sustainable development.

Chapter 5 discusses and analyses the results described in Chapter 4 in relation to the literature reviewed in Chapter 2; identifying in what ways the findings are supported or otherwise by a current body of literature.

Chapter 6 draws on both relevant literature and fieldwork, to answer the overarching research question. This chapter provides conclusions and summarises key findings that may contribute to future research.

## **Chapter 2: Research Context**

### **2.1 Introduction**

This chapter provides background for the research, and reviews literature associated with the research topic. This background provides a basis for comparing what has emerged from this research to existing knowledge. Initially, Chapter 2 describes the context and history of Maori development, before exploring the links between traditional Maori worldviews, concepts and appreciations of holistic well-being. A commentary of traditional 'Western' development theory is then compared and contrasted with contemporary appreciations of sustainable development. The Sustainable Livelihoods Approach (SLA) is described, relating the significance of both tangible and intangible livelihood outcomes to appreciations of well-being. Further description concerning the relevance of social and cultural capital is then described and related within the context of contemporary Maori sustainable development.

### **2.2 History of Maori development**

After leaving Hawaiki, the legendary homeland of the Maori peoples of New Zealand, the mythical Polynesian navigator Kupe, is said to have marvelled at 'the land of the long white cloud – Aotearoa'. All verifiable evidence points to Aotearoa - New Zealand having been first settled in the thirteenth century AD, during the era of widespread Polynesian ocean voyaging (King, 2003). Maori history and legends tell of many stories of the journey to Aotearoa, for each waka (canoe) and each iwi (tribe) has its own history. Initially settling along the east coast of the North Island, these explorers were to embrace a land as their own. After their arrival in Aotearoa, Maori did more than survive - they adapted to their new world almost instantly, and built a complex artistic and sophisticated society in only a few centuries (McKinnon *et al*, 1997).

### 2.2.1 Arrival and adaptation in Aotearoa

Maori development in New Zealand can be discussed according to three time periods: colonial (archaic), transitional and tribal (classic) (King, 2003; McLintock, 1966). The colonial (archaic) period is also known as the 'Moa Hunter period' and refers to the arrival of Polynesians (later to be called Maori) to the shores of Aotearoa - New Zealand. The new arrivals spread quickly through the country establishing and consolidating their presence.

The colonial period gave way to the transitional period as the once plentiful food resources disappeared, ushering in a period where Maori refined their skills of gardening, seafood gathering and snaring for small game. Cultivation of food and its preservation became essential in the transitional period and soon replaced the explorative and roving lifestyle (King, 2003). This led inevitably to the establishment of fortified settlements - growing crops and stored food had to be protected.

The groups of Maori who were now settling into regions also became more focused and organised as unique sub-tribes of the original waka, and were claiming territory. King (2003) commented, "*the cultural focus shifted steadily away from cultures of origin to a singular awareness of and commitment to the adopted homeland*" (King, 2003: 74). In other words, Maori had divided, identifying as unique tribal groups. New technologies and practices were tried for meeting new environmental challenges; different kinds of dwelling and clothing to keep warm, different ways of growing, gathering, preserving and storing food. New forms of carving and ornamentation developed, reflecting both different working mediums and shifting perceptions of cultural and spiritual realities (King, 2003). What this all added up to was the process by which an imported culture, that of East Polynesians, left to develop in isolation, became an indigenous culture; Te Ao Maori (The Maori world).

## 2.2.2 Traditional Maori horticulture

Pre-European Maori were a strong horticultural people, utilising the land which they occupied for food production. Roskruge (1999: 5) describes the importation and cultivation of foods other than taewa by the Maori including: kumara (*Ipomoea batatas*), aute or paper mulberry (*Broussonetia papyrifera*), taro (*Colocasia antiquorum*), hue or gourd (*Lagenaria vulgaris*) and uhikaho or yam (*Dioscorea spp.*). The success and survival of these species to modern times is indicative of the traditional importance and effective management of these foods, and others, to Maori.

Early Maori did not possess metal tools, and were heavily reliant on physical labour. Furthermore, Maori horticulture was heavily reliant on traditional management practices to succeed. The main points of early taewa management systems as described by Roskruge (1999: 13) included: rotational planting on fresh ground each year, the selection of preferred sites for cropping, the use of the best quality tubers for seed, non-use of fertiliser except for ash, non-use of irrigation, incorporation of sand or stones into the soil, pest management, harvesting and grading of produce, as well as the storage of produce.

Maori used their adept skills in horticulture to produce respectable yields annually and to maintain quality seed for future use. Extensive areas were gardened on an annual basis in order to produce sufficient of each foodstuff for their own use and to undertake manaakitanga, hospitality towards others. Travellers, visitors and participants in hui (meetings and gatherings) were always fed well from the stores of the host people. Jones (1989) describes Cook's astonishment to observe 150-200 acres of crops under cultivation when he landed in Tolaga Bay on his first voyage in 1769 and yet he believed the population associated with these gardens to be only around 100 people.

### **2.2.3 Taewa Maori**

The first introductions of the potato to New Zealand have been variously credited to de Surville, 1769; Cook, 1769 and 1773; du Fresne 1772 and Lt. Governor King, 1793 (Harris & Niha, 1999). However, it should also be acknowledged that certain iwi recognise the presence of particular taewa cultivars before European arrival. The NgaRauru iwi of South Taranaki grew a potato they called Tatairongo. Their history states this potato was named after their ancestor – te Reke Tatairongo – who is said to have obtained the first tuber from Te Ao Po (the nether world) (Roskruge, 1999: 6). Whatever the origin of the potato to New Zealand, Maori realised their potential as a staple food crop, with taewa eventually grown extensively throughout New Zealand, and becoming an integral part of various trading enterprises and the Maori diet. The crop quickly became a key component in the evolving ‘resource economy’ of New Zealand (McAloon, 2002).

A wide range of Maori potatoes are still grown throughout New Zealand today (see Appendix 1). Harris & Niha (1999) comment that, assuming such potatoes are relicts of cultivars brought from Europe in the late eighteenth and nineteenth centuries, they have been maintained within whanau (Maori families) for possibly over 200 years – perhaps eight to nine generations. Harris & Niha (1999) further relate the significant sentimental value amongst more practical reasons for maintaining these old cultivars. With these tubers being passed down through the generations, there is a responsibility to maintain them and pass them on – a taonga (something highly prized or treasured) that had been left to them by their tipuna (ancestors).

### **2.2.4 The Treaty of Waitangi**

In 1840, arguably the single most important document in New Zealand history, The Treaty of Waitangi (Te Tiriti o Waitangi), was presented by William Hobson to Maori tribal chiefs around the country. Prepared hastily and without legal assistance, the treaty was signed on February 6, 1840 by about 540 rangatira (Maori chiefs) at Waitangi in the Bay of Islands, New Zealand. This

document, that has become a touchstone of the relationship between Maori and Pakeha (non-Maori), was primarily drafted to legitimise and facilitate land sales, in which the Crown would be the agent.

While the Treaty may have been primarily to consolidate and control land purchases from Maori, it has had broader and very significant repercussions for both Maori and Pakeha, and over a hundred and fifty years later, is regarded by some New Zealanders as an honourable founding document, by others as simply erroneous, and by others as exploitation. Certainly, the Treaty of Waitangi marked a significant point in the history of Maori development as it formalised the future relationship between Maori and Pakeha. The Treaty of Waitangi has an important historical context which is very relevant to contemporary appreciations of Maori sustainable development. Notably, the treaty has strongly influenced Maori peoples' ability to have complete control over and direct self-determined, holistic development.

The translation of the Treaty in Maori was deemed to convey the meaning of the English version, but there are important differences. Most significantly, in Article I of the Maori version the word 'sovereignty' was translated as 'kawanatanga' (governance). This critical terminology meant some Maori believed they were relinquishing government over their lands but retaining the right to manage their own affairs. The English version guaranteed 'undisturbed possession' of all their 'properties', but the Maori version guaranteed 'tino rangatiratanga' (full authority) over 'taonga' – treasures intangible and tangible (Roskrug, 2006).

The conflicting understandings of the Treaty have long been the subject of debate. Confusion and disagreement surrounding the various issues and inconsistencies of the Treaty from the outset of formalised Maori/Pakeha relations, is a significant consideration which needs to be acknowledged to appreciate the origins of contemporary Maori sustainable development.



## 2.3 Maori worldviews

Societies and communities within societies have their own cultures which reflect a unique perspective or way of seeing the world – they have their own ‘world view’ or ‘paradigm’.

*“The word [paradigm] comes from the Greek word paradeigma which translates literally as ‘pattern’. It is used in social science to describe an entire way of looking at the world. It relates to a particular set of philosophical assumptions about what the world is made of and how it works... The point about paradigms is that they provide the landscape in which individual theories can flourish. Those theories, within a paradigm, are subsumed under broader generalisations about what the world is made up of, how it works, and how we can know about it.”* (Davidson & Tolich, 2003: 26).

The way that communities of people view the world informs the way they behave towards each other and their environment, the values they hold as well as their customs and traditions. Maori share a unique traditional worldview which emphasises a connectedness between people, other beings and resources, realised through whakapapa.

### 2.3.1 Whakapapa

Royal (1992) describes whakapapa, or genealogy as, *“the foundation of Maori society”*. From a Maori perspective, an appreciation of whakapapa is central to human connections with the environment and links the different parts of the natural world. A number of values or principles stem from whakapapa, guiding the way in which Maori see and treat the land and other resources (Roskruge, 2006). A traditional Maori worldview is based on whakapapa and represents a means for describing and relating aspects of the world we live in. As Kawharu (1998: 16) states:

*“Proof in Maori terms of gods and ancestors is [traditionally] denoted through whakapapa, a genealogical recital connecting humans, their ancestors and*

*the gods before them. The whole universe is thus ordered in a systematic fashion.”*

A traditional Maori worldview places all parts of the environment – humans, plants, animals, water, soil – in lines of descent from a common divine origin. These genealogies provide a means of ordering human relationships, understanding the natural world and how it is structured, defining the role and place of people in relation to the environment and reasoning how and why this role should be carried out (Roskrug, 2006).

Whakapapa provides continuity in the relationship between people and whenua (land). People may have been separated from the land (through sale or other means) or may move away from the land, but an unbroken link with the land remains and is confirmed through whakapapa. The relationship with the whenua is strengthened through traditional horticultural practice as well as other activities facilitating care and nurture of the land, and is a central consideration relating the contribution of taewa production to Maori sustainable development.

### **2.3.2 Whenua**

Maori conceptualise the land (whenua) as Papatuanuku, or earth mother as she is commonly referred to. Traditional creation myths teach that people are connected to Papatuanuku through whakapapa – her union with Ranginui produced the atua (gods), one of whom was Tane who preceded the first person, Hineahuone.

These myths contain important messages for Maori relating to how the land should be regarded and treated – as a mother who nurtures and sustains life and should therefore be respected and looked after in a way that ensures she is also able to continue to provide for people and their needs (Roskrug, 2006). This appreciation of the land is further emphasised as whenua also means placenta. As the placenta nourishes the child in the womb so too does the land nourish people. Custom serves to reinforce this idea, for instance

after the birth of a child, traditionally the whenua (placenta) is returned to the land and buried, thus connecting the person to the land.

### 2.3.3 Maori values

Harmsworth (1995) defines Maori values as:

*“...any natural resource, area, place or thing (tangible or intangible) which is of physical, economic, social, cultural, historic and/or spiritual significance to tangata whenua (people of the land – Maori).”*

For Maori, land as a resource is of immense cultural significance and is strongly related to Maori values. It is a value in itself, and has many values associated with it which derive from world views, traditions and histories that have been discussed in previous sections. They are strongly interrelated and although they are distinguishable, they can not be considered entirely individually, requiring a holistic appreciation (Roskrug, 2006). Such a holistic appreciation in Maori terms requires looking at the world from the perspective that everything is connected through whakapapa. It also means seeing the world as having four dimensions or states of reality (Durie, 1994; Harmsworth, 1995):

- *Te taha tinana* – the physical dimension, what can be seen, touched, heard, smelt.
- *Te taha hinengaro* – the mental dimension, knowledge and understanding of the environment.
- *Te taha wairua* – the spiritual dimension, beliefs and feelings about the natural world.
- *Te taha whanau* – the family dimension, relationships to the environment and to each other through whakapapa.

A fifth dimension – te (taha) mauri can also be used to further describe the resultant well-being or health of these four dimensions.

Tapa Wha, or Te Whare Tapa Wha (four cornerstones) as this perspective of Maori well-being is described, offers a uniquely Maori perspective into the holistic nature and background to protocol, values and ordinances. This appreciation describes the important spheres or dimensions which are traditionally recognised as contributing factors of Maori well-being. An important consideration here is that modern development theory frequently identifies separate, unrelated assets/capitals in communities which conflicts with traditional Maori thought. Therefore, a truly holistic appreciation and perspective such as described in Tapa Wha is needed to appropriately conceptualise aspirations for Maori well-being.

## **2.4 Development**

Development is a term broadly used to represent a wide range of activities, processes, and end goals. There are a number of definitions of 'development' in relation to the progress of groups of people. While in more recent years, Western literature has been used to denote a process that enlarges people's choices, improves well-being and enables people to reach their fullest potential (Chambers, 1997; Staudt, 1991: 28).

Conventionally, (Western) development has been dominated by an 'economic' perspective of development (Shepherd, 1998: 1). For example, Modernisation Theory that dominated development thinking from 1950-70, is the premise that each country experiences successive stages of economic growth, while moving from a traditional subsistence based economy to one based on monetary exchange and mass consumption – aided by international trade (Young, 1993: 2). Modernisation Theory also assumed that well-being was linked directly to economic growth, the benefits of which would 'trickle-down' to the poor. More recently, neo-liberal approaches have echoed the Modernisation Theory in terms of this focus on economic development. This strong economic focus to traditional development models has come at the expense of local social, environmental and cultural assets, and at the exclusion of local community values and decision making processes (Akroyd, 2003: 18; Escobar, 1995: 211).

### 2.4.1 The concept of sustainable development

The term sustainable development was coined in the 1970's (Government of Canada Archives, 2004) and describes an approach to development which recognises that traditional 'Western' models of development have been environmentally unsustainable, and do not adequately address the fulfilment of human needs with the protection of the natural environment so that these needs can be met not only in the present, but in the indefinite future. This appreciation of sustainable development was defined by the World Commission on Environment and Development as, "*development that meets the needs of the present without compromising the ability of future generation to meet their own needs*" (United Nations, 1987).

In the UK sustainable development strategy, *Securing the future* (DEFRA, 2005), sustainable development itself is defined in terms of two distinct, but related components, introducing a social perspective into the 'sustainable development' discourse:

- Living within environmental limits (i.e. the need for environmental sustainability)
- Ensuring a strong, healthy and just society (i.e. the need to ensure well-being)

White & Pettit (2004), describe well-being as a complex notion with many different dimensions. "*The 'well' shows that it is concerned with values and assessment. 'Being' suggests the importance not only of economic security and physical health, but also of subjective states of mind and social relationships*" (White & Pettit, 2004: 64-65). McGregor (2004) adds that to better understand what these appreciations mean to people, we need to go beyond 'snapshot' views of where people are at present, to explore the social and cultural processes which lie behind these. Therefore, within this recent description of sustainable development, well-being encompasses more than just economic well-being, but also concerns issues such as quality of life, health, freedom from oppression, equity, empowerment and self-

determination. Additionally, well-being is seen as much more reflective of people's realities, defined by those being developed (Ellis & Biggs, 2001; Chambers, 1997).

#### **2.4.2 Sustainable Livelihoods Approach (SLA)**

The concept of 'sustainable livelihoods' (SL) was first acknowledged in a report by the World Commission on Environment and Development, in the 'Food 2000' publication (WCED, 1987; cited in Cahn, 2006). The idea builds on previous concepts from the field of development, linking livelihood security to basic needs, food security, sustainable agricultural practices and poverty. Chambers (1997) and Shepherd (1998) indicate that the idea has developed into an approach which is 'people-centred' in contrast to past approaches which tended to be economically driven and 'things' centred. Furthermore, while livelihoods are significant aspects of development and therefore well-being, historically, development projects have often focused solely on economic development with the intent of stimulating the economy, which will eventually create jobs, and thus greater and more diverse livelihoods (Chambers, 1997). However, while income, food security and other necessities are basic livelihood outcomes, people aspire to a range of other important outcomes that may be less tangible and less obvious to make their lives fulfilling and worthwhile. For example, self-determination, empowerment, dignity, increased choices, improved status and reduced vulnerability are difficult to measure but equally important. The challenge within a Maori context remains to identify practical livelihood options which merge aspects of sustainable livelihood strategies with inherent Maori values.

The SLA is based on the premise that the asset (also termed capital) status of the poor is fundamental to understanding the options available to them, the strategies they adopt to attain livelihoods, the outcomes they aspire to, and the vulnerability context under which they operate (Ellis, 2000: 31-32). The Department for International Development (DFID) recognises five categories of assets – natural, social, physical, human and financial. However, as Cahn (2006: 47) mentions, this sustainable livelihoods framework makes scarce

reference to cultural aspects, despite a number of authors noting that sustainable livelihoods analyses need to take more account of gender, age, ethnicity and class (e.g. Bebbington, 1999; Ellis, 2000) or that aspects of cultural sustainability are important to sustainable development (e.g. Overton *et al*, 1999; Clark, 2002). Often cultural considerations have been seen to ‘fall’ under the guise of social capital but as Bebbington (1999: 2034) comments, cultural capital is not the same as social capital, although there are overlaps. Figure 1, describing a revised framework for sustainable livelihoods which incorporates culture as a unique asset, is displayed on the following page (Cahn, 2006: 146).

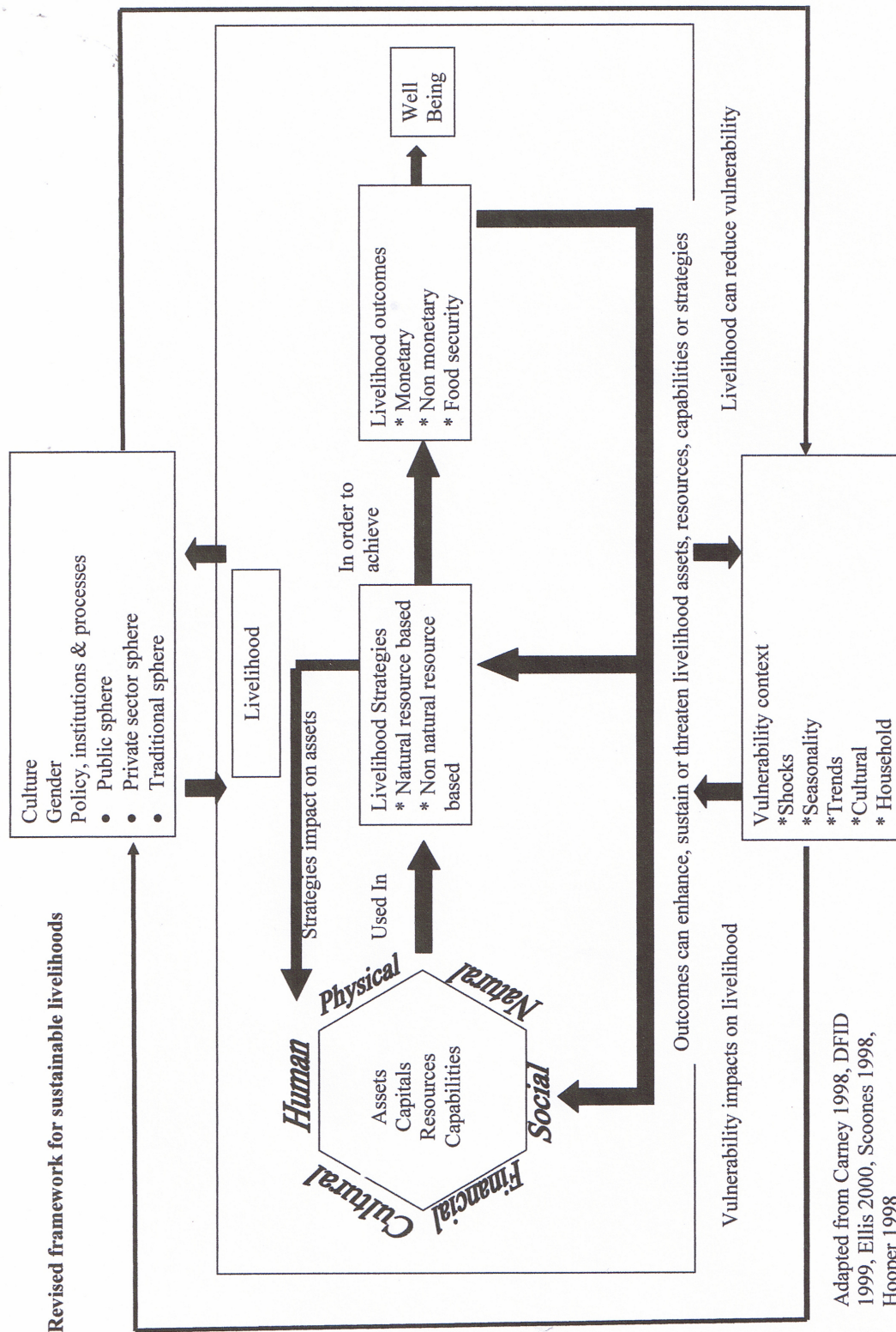


Figure 1: Revised framework for sustainable livelihoods (Cahn, 2006: 146).



### 2.4.3 Social and cultural capital

Despite definitions describing the importance of other assets, during the 1990's, efforts to operationalise sustainable development have been led largely by 'Western' ecological economists utilising Capital Theory (Loomis, 2000). This conceptual work has largely ignored indigenous peoples' efforts to achieve self-determination and embark on development initiatives of their own.

Loomis (2000) argues that 'grassroots', indigenous initiatives which draw on residual stocks of social/cultural capital for their impetus, provide useful insights into problems of conceiving and operationalising 'sustainable development'. *The Economist* (March 1, 1997; cited in Loomis, 2000) commented that economists and policy makers seem to have rediscovered that institutions, social relationships and culture matter in development. Furthermore, Putnam (1994) published a study of the historic relationship between economic development and civil institutions in various regions of Italy. He concluded that while economists do not predict the strength of civil society, the converse appears to be the case: "*a region's chances of achieving socioeconomic development [depend] less on its socioeconomic endowments than on its civic endowments*" (Putman, 1994: 157).

Sustainable development for Maori therefore relies on sustaining and enhancing the social/cultural capital. In defining the core characteristics of social/cultural capital in a Maori context, it is necessary to first conceptualise contemporary appreciations of just what social and cultural assets encompass. Cahn (2006) effectively illustrates the respective social and cultural components and the overlap between these in Figure 2.

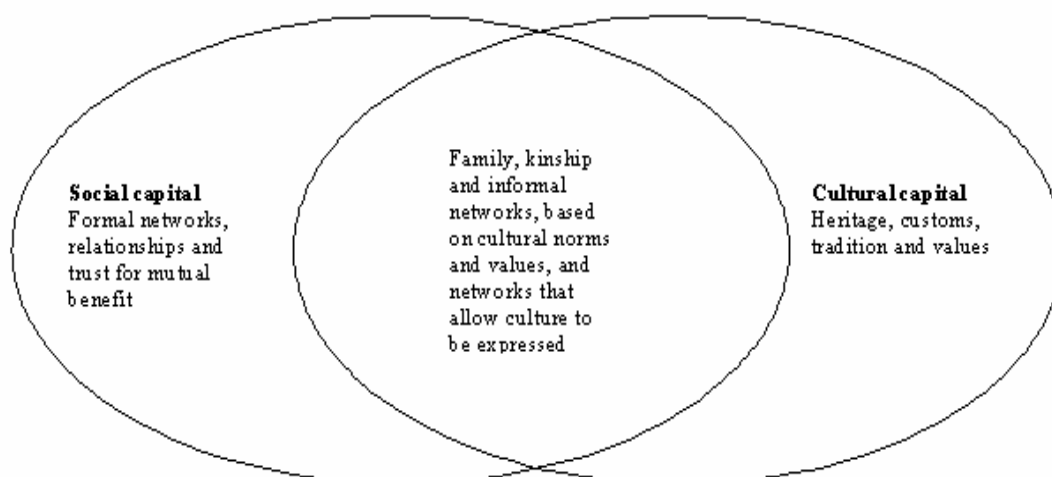


Figure 2: Appreciations of social and cultural capital (Cahn, 2006: 50).

As shown in Figure 2, there is significant overlap between what is regarded social and cultural capital. Williams and Robinson (2000) further describe the commonalities between these two aspects, *“cultural capital is a key aspect of social capital and social capital is an expression of cultural capital in practice. Social capital is based on and grows from the norms, values, networks and ways of operating that are the core of cultural capital”* (Williams & Robinson, 2000: 15).

To facilitate any hope for *Maori* sustainable development it is essential to appreciate the integral social and cultural aspects specific to Maori society. Williams & Robinson (2000: 15) outline a number of considerations relating Maori concepts of social/cultural capital, expressed through Maori community values and norms which stem from traditional values that are rooted in the *whanau*<sup>2</sup>. These include:

- Whakapono (trust)
- Tika (integrity)

<sup>2</sup> Williams & Robinson (2000: 15) elaborate that the Maori concept of *whanau* (family) moves seamlessly from the immediate family to the wider family network (*hapu*) and the tribe (*iwi*), where the extended family becomes the community and the community is made up of the (extended) family. In this context, social capital is created through networks and relationships that are within all these expressions of ‘family’ (or community).

- Pono (truth)
- Manaaki (sharing and caring)
- Tautoko (support)
- Hapai (uplift)
- Whanaungatanga (social interaction and connectedness)
- Kotahitanga (unity)
- Mana motuhake (autonomy and authority)

#### **2.4.4 Sustainable Maori development**

Indigenous groups in many countries have come under increasing pressure to engage in 'successful development' as defined by outsiders (Loomis & Mahima, 2001). However, one of the best responses to globalisation pressures is for indigenous peoples to take control of their own lives and destiny through some form of strategic direction (Durie, 2000; cited in Harmsworth, 2002) that can be used as a pathway to empowerment, less dependency, and more active engagement and participation in planning, policy and research (Harmsworth, 2002).

Maori Sustainable Development is a term reflecting the aspirations of contemporary Maori in Aotearoa - New Zealand. Loomis & Mahima (2001) prioritise traditional values and practices, emphasising that approaches to Maori development are holistic; with cultural values, social institutions and the well-being of people and the environment being as important as running 'successful' commercial enterprises. Therefore, sustainable Maori development needs to describe a holistic development and a strategic direction towards advancement, Maori autonomy, self-determination, and the building of social and cultural capacity, to capitalise on opportunities in the 21<sup>st</sup> century (Harmsworth *et al*, 2002; Durie, 1998; Loomis, 2000). Central to this holistic development are Maori values, a strong sense of cultural identity and purpose, and the retention and use of Maori knowledge. Harmsworth (2002) adds that successful Maori development may be measured through improved Maori wellbeing and standards of health, increased social and

cultural capacity, strength of cultural identity, sustainable development of natural resources, and culturally appropriate strategies for economic growth.

## **2.5 Conclusion**

'Western' development theory has traditionally ignored the significant contributions of intangible aspects of livelihoods, focussing rather on tangibles aspects (especially economic state or capabilities). A revised SLA has described an appreciation where livelihood assets including that of; social, natural, physical, financial, human as well as *cultural*, have significant influence on the well-being of peoples. Within a Maori context, cultural assets are particularly relevant. Maori well-being has been described as a holistic appreciation, grounded in the fundamental appreciation of whakapapa. Whakapapa links all things Maori, forming the basis of a Maori identity and a means for the realisation of Maori values. Because of this particularly strong cultural influence, contemporary appreciations of Maori sustainable development are strongly influenced by a recognition of traditional Maori worldviews and values. Maori sustainable development prioritises the application of cultural assets, acknowledging the contribution these aspects have made towards Maori identity, purpose, knowledge and holistic well-being.

## **Chapter 3: Methodology**

### **3.1 Introduction**

This chapter describes the methodology that has been used in the research for this dissertation, and offers explanations for the choice. The methodology was designed to answer the research questions, and be flexible enough to respond to the questions and issues raised during the review of literature, the field research, and the analysis of field research. The chapter firstly describes the research theoretical appreciation, before elaborating on the research approach, strategy and methods. Limitations and constraints are also discussed as are relevant ethical considerations.

### **3.2 Theoretical appreciation**

The research methodology is strongly influenced by the Kaupapa Maori Research (KMR) approach. This theoretical basis for the methodology has been selected for the strengths which are brought to the research process; which include the sensitivity and validity by which questions are formed as well as the appropriateness of information which can be gathered.

Because this research is taking place directly within a Maori cultural context, the relevance of KMR is of utmost importance. Harmsworth (2002) insists that identifying and understanding Maori values is necessary to generate sustainable research relative to Maori resources. That is Maori values shape the research *process* through principles based on tikanga (protocol, what is right), in order to maintain the integrity of both the 'researched' and the 'researcher'. The KMR approach provides an effective means for consideration and application of such values within the specific research context concerned. Because of this unique sensitivity, KMR values, approaches and considerations are utilised to guide and establish a research process which is meaningful and respectful for both the individuals being interviewed and the researcher.

KMR addresses several themes which are compatible with acknowledged development ideals including participation and empowerment. Firstly, KMR encourages acknowledgement of issues including benefits, representation, legitimation and accountability (Powick, 2002: 13). Therefore, it was necessary to make clear to research participants what the interviews would be used for, as well as providing the opportunity for interviewees to 'check' the way in which information was interpreted before the research was analysed. Secondly, Mead (1996) identifies a number of considerations that are important for the research process, including:

- Aroha ki te tangata (a respect for people)
- Kanohi kitea (to present yourself face to face to people)
- Titiro, whakarongo, korero (look, listen, speak)
- Manaaki ki te tangata (share and host people, be generous)
- Kia tupato (be cautious)
- Kaua e takahia te mana o te tangata (do not trample over the mana of people)

These understandings are particularly relevant when interviewing people, and therefore are an integral component of the research methodology.

### **3.3 Research approach**

The research is primarily based on a qualitative and inductive approach. A qualitative approach has been selected because it *“seeks to understand the world through interacting with, empathising with and interpreting the actions and perceptions of its actors”* (Brockington and Sullivan, 2003). These integral components of a qualitative approach are especially important considerations with respect to the research group. Human emotions and perceptions are complex constructs which undoubtedly affect the ideals of indigenous self determination and wellbeing - two central considerations of the research. Quantifying 'well-being' and components of indigenous self determination such as 'manaakitanga' and 'whanaungatanga' would be difficult; however, qualitative methods provide a means by which to access and analyse such

information. This field research was conducted in an informal setting and with 'face to face' contact with the research participants, both of which are important aspects of the qualitative approach used in the research.

### **3.4 Research strategy**

This research consists of a case study of Maori taewa growers associated with Tahuri Whenua (national Maori vegetable growers collective). In particular, how taewa production contributes to Maori sustainable development, as this concept is appreciated (perceived) by the participants.

The strategy of the case study is to understand complex social phenomena through exploratory and investigative means. Yin (2003: 13) further states that *"a case study is an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident"*. It is important to recognise that because of the very nature of a case study, it is limited in its usefulness for generalisation. This study will represent views of *individuals* within the Tahuri Whenua collective; meaning that while some generalisation may be shown for that group of participants, it can not offer generalisations or assumptions representing broader aspects. The goal of this case study is not to define a sample of community but rather to explore a situation of one group of participants and expand a base of knowledge on which further theoretical appreciation can be built.

### **3.5 Research methods**

The research included both non-field and field orientated methods to gain insight and collect data. Field work in this context refers to the practice of immersing oneself within the research context or as Singleton and Straits (1999: 322) state, *"a major reason for doing field research is to get an insiders view of reality."*

### *Literature review*

Collection of relevant literature prior to, during, and post field research was essential for the research. A literature review allowed the research to focus more clearly on relevant and pertinent issues, providing 'building blocks' from which new ideas could be constructed from themes that emerged during the field research.

### *Field research*

The field work component of this research was conducted during a period of two weeks, in the North Island of New Zealand. Initially this involved an introductory meeting with taewa growers associated with Tahuri Whenua which coincided with a predetermined collective hui. This introductory meeting was an important part of the KMR approach which emphasises the importance of 'face-to-face' introductions. It was not the intention of this initial meeting to result in significant investigation but rather to present a 'face' to the research.

Field research was conducted primarily via semi-structured interviews; with observations and secondary data collection used to enhance the findings. Semi-structured interviews were chosen as the principle method for field research in an attempt to gather rich qualitative data. The interviews were semi-structured to provide flexibility and allow for situation adjustments. This meant that the interviews were loosely structured around a list of open-ended questions, allowing for a degree of structure, thus making sure the key questions are appropriately addressed. The informal, conversational style of the interviews ensured that the participants were not pressured or intimidated as may be the case with structured questionnaires. The interviews were held at the growers' homes or at an alternatively convenient (for the grower) location within the community. The length of the interviews varied in time depending on the situation (e.g. time availability, flow of information) from half, to one and a half hours. A general set of questions and prompts were carefully arranged to ensure that key topics were addressed while not dictating the flow of information (see Appendix 2). Information gathered via dialogue was additionally supported by observations.



Direct observation refers to a 'sit and watch' process; whereas, participatory observation relates to direct, active involvement in the events being studied (Bell, 2005). Participatory observation was a particularly important part of this research. During the period of field-work there was the opportunity for the researcher to participate in a taewa harvest with a number of growers. This allowed for direct and participatory observation and conversation within a comfortable non-artificial setting.

### *Selection process*

The research design identified potential participants according to purposive sampling. This used the judgement of an expert (the chairman of Tahuri Whenua) in recommending and selecting appropriate participants from within the Tahuri Whenua collective with a specific purpose in mind (i.e. to discuss the relationship between taewa production and Maori development). It should be acknowledged that with this technique *"the researcher never knows whether the cases selected represent the population"* (Neuman, 2000). Thus, one cannot safely generalise from a sample of this kind to a 'population'. Purposeful sampling has been used to ensure that the sample covers a demographic range (e.g. age, gender), and that the participants were of Maori descent and actively involved in taewa production. Participants were selected from the 'South-central' North Island (an area stretching from Bulls to Hastings and Palmerston North to Paraparaumu). The chairman has no reason to be biased in the selection of participants with a range of growers being interviewed.

Seven participant taewa growers were interviewed. Guest *et al* (2006) supports this number of participants, suggesting that it is an appropriate sample size for research using purposive sampling. This sample size is further supported by Nielson and Landauer (1993) who demonstrated that six evaluators (participants) can uncover 80% of the major usability problems within a system. Furthermore, seven participants was the maximum number able to be interviewed in the time allocation. It should also be noted that no new information was forthcoming suggesting that saturation was attained. (Appendix 3 describes interviews conducted, times and dates).

### *Data analysis*

The semi-structured interviews and observation formed the basis for the field research, and were interpreted through drawing out main themes. Analysing the data in this way was relevant to the research, as it offered the potential to:

1. identify data representing a research theme;
2. generate data outside of the established research theme;
3. indicate where more data on a theme was needed;
4. indicate an entry that fitted with the thematic file;
5. facilitate a process of praxis, reflection.

(Davidson & Tolich, 2003: 169).

### **3.6 Limitations and constraints**

The primary constraints to this research include time, availability and accessibility of participants. The amount of time available to conduct the field research, dictated the ways in which other constraints affected the research. To mitigate some of the potential issues associated with the availability and accessibility of participants within the limited time-frame, an introductory meeting was undertaken to create awareness amongst the growers. This preliminary meeting provided an opportunity to arrange convenient meeting times and venues to conduct the semi-structured interviews for both participant and researcher.

This case study also potentially posed a number of cross-cultural issues, including language barriers and other differences in cultural practices and customs. However, the introductory meeting provided an ideal opportunity to engage growers while respectfully learning their 'ways'. Application of the KMR approach to the research also contributed to the success of this, in that culture was respected. For example, the initial 'face to face' meeting with the participants incorporated caution, respect and cultural sensitivity; all integral considerations. In addition, the researcher's prior experience and exposure to Maori culture was invaluable. Language barriers did not eventuate, largely

because of the high level of English literacy amongst the growers concerned, but also my moderate appreciation of Te Reo Maori (the Maori language).

### **3.7 Ethics**

Considering the cultural and social context in which the research is taking place, confidentiality and ethical issues of prudent, non-invasive research are important. Regarding this, every effort was made to assimilate and conduct field research with respect, compassion and empathy while attempting to establish relationships that were beneficial for all involved. These considerations were supported by the KMR approach, which acknowledges issues including benefits, representation, legitimation and accountability as described earlier. Moreover, every effort was made to ensure that this research not only did not harm, but also had the potential to 'do good' (Nowak *et al*, 2003).

Initially the Tahuri Whenua collective were aware of the research intentions as the topic and areas of focus were introduced at a preliminary hui. When interviews were undertaken the participants were informed of the nature, aim, and objectives of this research while also being asked to sign consent forms. If at any time the interviewee wished to stop the interview process or strike out portions of the interview, their requests were honoured.

Ethical considerations were carefully considered prior to the research as per the Lincoln University Human Ethics Committee, and care was taken throughout the research to ensure participants were fully aware of their rights and understood what the research entailed. The KMR code of ethics was adhered to as outlined earlier.

### **3.8 Conclusion**

The research methodology was based on a qualitative approach to a case study, acknowledging KMR theory and practice. This methodology was considered appropriate for the type of research that was being conducted and

the research participants that would be involved. The research context in Chapter 2, concerning Maori sustainable development, describes development that recognises traditional Maori values and appreciations of cultural identity. The KMR approach lends itself to this type of research, emphasising a respect for traditional values and practices and acknowledging development ideals including participation and empowerment. The research was designed to be flexible, enabling the research to develop with reasonable boundaries, while ensuring that research questions were answered.

## **Chapter 4: Results**

### **4.1 Introduction**

This chapter presents findings from the field work inquiry and observation. Initially a grower description has been provided to illustrate the context of the research findings. The results are further described according to the following themes, identified during the data collection process as representing significant aspects of Maori sustainable development: whakapapa, economic survival, Maori values and tikanga, manaakitanga, whanaungatanga, food security, and future development. Within each theme, the growers' perspective of Maori development, and the way in which the growers believe this aspect contributes towards Maori sustainable development is described. Whakatauki (proverbs, traditional sayings) are presented at the start of the sections, adding depth of meaning as well as illustrating the context of the respective themes.

### **4.2 Grower description**

The most unifying factor all growers in this case study share is whakapapa. Growers draw strength from a Maori identity conceptualised through whakapapa which serves to enhance the relationships they share with each other and the resources. Because of this, growers share a close association with the whenua, which has often been fostered in a rural upbringing where traditional Maori values and perspectives were acknowledged. Importantly, growers share a strategic vision of their own regarding horticulture as a viable livelihood option. Intangible outcomes are prioritised with their respective taewa production systems although it is important to mention that there are invariably, albeit small, economic outcomes associated. Because of the need to realise financial stability, growers typically pursue a mix of other livelihood strategies which significantly contribute towards their realisation of economic outcomes.

Growers draw strength in tikanga, which is reflected in their respective horticultural practice, taewa variety choice, horticultural knowledge and local knowledge. Typically the growers in this case study cultivate a range of other traditional Maori horticulture, such as kamokamo (squash, marrow), kaanga (corn, maize) and kumara (sweet potato). The growers who were interviewed tend to be older, although there were exceptions. Other demographic trends were not apparent.

A major factor influencing these growers is a real desire to contribute to the success and well-being of the next generation of Maori. There is a real desire to contribute where they can to the growth and development of young Maori and the growers interviewed see taewa production and other traditional horticulture as being able to contribute positively towards this. Traditional horticulture provides a means for these growers to realise culturally-significant outcomes which provide unique opportunities for them to apply traditional Maori values and practices.

### **4.3 Whakapapa**

*Noku te whenua, o oku tupuna*

The land is mine, inherited from my ancestors

Whakapapa forms the very foundation of being Maori and of Maori society and culture. Everything within the Maori world (Te Ao Maori), seen and unseen, has a whakapapa which links it to everything else. According to the growers interviewed, these links are paramount for Maori and are at the very heart of Maori identity. Whakapapa creates that link between the present and the past, connecting Maori directly to their ancestors and the ways of their ancestors, instilling and reinforcing a cultural identity. As one grower explained:

*“What makes Maori, Maori? Why is someone who is Maori any different to anyone else? The defining factor that makes anybody Maori is quite simply whakapapa... That whakapapa doesn't measure you by... the litres of blood or*

*the generations away from somewhere, but whakapapa takes you, it links you to nga atua [the gods] so it takes you to back to the spiritual realm. And it links you to everyone else around you who also has whakapapa and the resources... Maori are the only people with whakapapa, others have their own version of relationships and history but Maori carry theirs through whakapapa. In a traditional sense it is the basis of identity and therefore of strength and confidence, for both individuals and groups... Whakapapa is one thing unique to Maori... To be Maori is to have whakapapa.” (Grower 1)*

All growers interviewed related the importance and significance of whakapapa to their wellbeing as Maori. The concept of whakapapa is described as a holistic appreciation of Te Ao Maori; a relationship between all things working together which contributes towards one’s identity and success as Maori. Participants explained whakapapa and the relationship between whakapapa, Maori identity and whenua:

*“It is identity which is your whakapapa but it is also that confidence in who you are... Whakapapa is not just names and the layers, it is the stories, it’s the evolution of the relationship between our people and the resource [whenua].” (Grower 1)*

*“I think if we are Maori, in a sense everything has a whakapapa and to me everything relates back to Rangi [Ranginui] and Papa [Papatuanuku]. You know everything to sustain us comes from the earth, and that’s Papa and it all relates to whakapapa... our life-giving to make us live is from the earth and the other thing is Rangi, the sky and the water that sustains us, those elements, those traditional elements are meant to sustain us as people.” (Grower 3)*

*“To be Maori is about what goes on inside, the wairua [spirit] you know the whakaaro [thinking, thoughts] that happens for people. That makes Maori... at the end of the day it’s the whakapapa that contributes to who you are. So you can talk about values but those values come to you through the earlier generations, that’s whakapapa.” (Grower 1)*

One activity will always impinge on another; hence, when considering taewa cultivation within Maori society, the growers appreciated that through whakapapa this activity is related to all other aspects of that same society. Whakapapa provides growers with a direct link to the whenua. Activities such as taewa cultivation facilitate this link, building, strengthening and in many cases renewing an intimate relationship with this special resource. Growers explained this relationship encompassing whakapapa, whenua and taewa:

*“Whakapapa – that is your identity applies to everything around you so your crops and your relationship with the whenua is expressed through whakapapa... I think culturally [taewa cultivation] reinforces that link to the whenua you know; you were born from the land and you will return to the land. From a Maori perspective you are the land. When you are born your placenta is returned to the land and when you die you return to the same land and there is no separation. That’s the old way, so these young ones they need to learn that and they need to experience some of that. And that’s one of those ways I suppose that [taewa cultivation] can contribute in some way to some of that... so its part of hanging onto something which makes you who you are.” (Grower 1)*

*“I think that old generation had a stronger relationship with the whenua that they lived on the same whenua that they were born on... you know if they shifted away, they only shifted a mile or two down the road... they never really [went] away from that whenua, and the relationship in itself is hard to explain... you can’t compare it to how ours is now we have a different relationship with the resources, they didn’t have the options we have... If we don’t use the opportunity to pull together some experience and all that now, then it will be lost because those older people are just not going to be around. Which is why it is quite important to involve kaumatua, kuia [elder men and women] and all of that in what we do simply because they are just not always going to be around and people like me have been lucky to grow up with them, but give another 10 years and how many are going to be around... You know there are always going to be old people but how many with that sort of firsthand, subsistence sort of land relationship are you going to have? There*



*is fewer and fewer because we're all becoming part of a generation that is sort of separate to the land... There's still people out there who do but nowhere near the same [as] when we were young; you see youngsters nowadays... everything is almost a material sort of culture. They don't appreciate what they have got, and realise what they have got compared to what we had before."* (Grower 1)

Because taewa have traditionally had such a significant role facilitating this link to the land, they are held in high regard by Maori, as something special and unique. Growers described this unique relationship:

*"You know we have always been land based, rural, so it's just natural that we have [grown taewa] and our parents and grandparents were farmers and we have carried on the same tradition. You know we are not urban so we have the same values but it's mainly to prolong, and keep those different species [of taewa] so they are still relevant today. So you don't lose the varieties."* (Grower 3)

*"It's a special potato; it's not like any other thing..."* (Grower 7)

Taewa have been nurtured by Maori for at least 200 years<sup>3</sup> and are considered an important link to the whenua, and thus an integral part of whakapapa. This unique relationship has led to contemporary misrepresentations concerning whether or not the crop should be termed 'indigenous'. The growers made it clear that they valued the historical relationship between Maori and taewa over the origins of the crop. While all growers acknowledged that at least the majority of taewa cultivars came with early European whalers and sealers, they did not see this as a critical factor, rather, they focused on the relationship between Maori and taewa, portraying the origins of the crop as irrelevant. The growers describe the unique, historical relationship Maori have had with taewa, nurturing and sustaining the

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<sup>3</sup> As mentioned earlier, Maori have had contact with particular taewa cultivars since the late 1700's, although it should also be acknowledged that some Maori believe that they have grown taewa for a much longer period and that Maori are themselves responsible for the importation of certain varieties of taewa to New Zealand.

wide range of cultivars we see today. Growers see the significant contribution taewa have had as a resource and claim ownership – citing historic cultivation.

*“There is some controversy really whether these spuds belong to Maori. Some say that because we have had them for so long and we have kept the varieties going at least we should have the number one position [recognition] in New Zealand. We know they probably came from overseas and other countries... it is something that’s traditional, it’s cultural and has been part of our upbringing... these crops, taewa, probably when the whalers and other early settlers came, well Maori saw this crop and hung onto it more than any other settlers of New Zealand. At this point in time I think Maori are the ones keeping these varieties going.” (Grower 3)*

*“I always argue that since the whalers and sealers we are talking over 200 years. We have kept these [taewa] breeds going. We kept them going because we say we had a whakapapa to them, our people had certain areas where we grew those types of spuds [potatoes] and we kept them going. Why I call them Maori spuds is because we nurtured them for 200-300 years. We have still got them today. It is the same spud that was brought out by the whalers and sealers, but there are some Maori that say they were here before the Pakeha ever came. Maori were great voyagers, our furthest ring of Polynesian islands is Easter Island. Now Peru is just across the water...” (Grower 2)*

*“I’ve got a farming background, my parents and grandparents were farmers so we have always, you know, been land-based and in the old days my grandparents and parents always had their own seed which they kept, so we were always growing certain varieties of these Maori taewa... different varieties have always been in the family.” (Grower 3)*

There is a real sense that the relationship Maori have with taewa goes beyond contemporary appreciation and classification of an ‘indigenous’ species, which is simply based on where a species originated. Many growers find this view

foreign and difficult to accept and relate to because their historic relationship with taewa is so strong.

*“If they [growers] have known it [taewa] all their lives and their father and their grandfather have known it all their lives then how can it not be a part of who they are? That’s the scientific aspect and very much the Pakeha aspect is to compartmentalise everything... because they don’t understand other paradigms that’s how they justify their position.” (Grower 1)*

Taewa are an important part of the connection to the land for Maori, facilitating a means to partake in the traditional responsibilities of care and nurture associated with the whenua. Controversy concerning whether taewa are ‘indigenous’ is irrelevant as the crop has traditionally had such important roles and functions in Maori society. Clearly taewa contribute towards Maori cultural identity for the growers interviewed, serving to reinforce whakapapa and therefore facilitate aspects of Maori sustainable development.

#### **4.4 Economic survival**

*Hauora: Takoha mai Takoha atu*

With your gifts and our gifts we will achieve great success

It is important to comment that significant economic returns are not the primary reason for any of the growers in this case study choosing to cultivate taewa. In fact growers identified the pressures to have economic returns as not ideal but rather a necessity.

*“...those factors that impinge on being Maori, that economic thing about having to earn money to pay bills, to pay rates for instance on your land you know so that you have a bare minimum that you have to return to keep a third party off your back. And we are in a world where we can’t run from that, you know that it exists whether we like it or not and even if we did isolate ourselves it’s a global environment, you know you can keep a few people from the door but you won’t keep everyone from the door. There will still be people*

*turn up and say you have got to do this and you have got to do that. There is [also] the reality that Maori are not on the same starting block as other land owners in this country because they can't use the land resource and culturally it's not ideal, to use it to raise finance, to use it you know as collateral and the banks won't look at it in any case, but it doesn't have that ability. But for non-Maori it is a chattel. You know it is something they can raise finance in and all that so it's something that they can use in a business environment in a different way that Maori would; but having said that, for a lot of Maori their success factors may not all be financial whereas for businesses the success factors are primarily financial. Your success as a Maori land owner may just be the retention of that land, and the ability to still use it for some sort of traditional uses and that might just be just being able to go out and harvest a crop or being able to access waterways to harvest tuna [eels] and that sort of thing. So looking for different successes... it's not just about that one isolated bit of whenua or that taewa that you plant. In Maori terms everything contributes to everything else, you can't isolate." (Grower 1)*

*"We grow [taewa] for our own use and I sell a few. We really don't get enough seed to go commercial if you know what I mean. Just at local markets, gate sales, you're not going to get rich by it but... it's not about money." (Grower 4)*

*"There is a commercial element to what we do but the setup growing taewa was initially an opportunity to create something alongside my mahi [work]... that allowed me to still get outside and be working with crops and working with the land. I wanted something that would still allow me to get out and still work with the crops." (Grower 1)*

Despite the fact that growers did not identify economic outputs amongst their primary reasons for growing taewa, they are quick to site the need to be economically sufficient in today's world and do identify taewa production as a potential means for economic growth. Growers described their belief that the resources are there to ensure their well-being and survival as Maori, and see taewa as being able to contribute towards that.

*“The other thing though I think we have to realise, even us, is that there is an economic outcome that people nowadays can use for their benefit and I see nothing wrong with that. I mean I’m not growing them now for the economic purpose - I’m retired, we’re just growing them to keep the varieties going and hope that somebody else will pick up the opportunity to use these... we just hope somebody does because the little that we have noticed is that there seems to be a need if you like, or people are starting to see the value in these old varieties - in modern times of cooking with their different colours and how they enhance the meal with the different colours and flavours. They can be used in today’s world and you notice that some of these restaurants now are wanting to use the purple one, we call it tutaekuri – its got other names but the purple, poroporo variety and they use that because of the colours if you put it on a plate with salad. The tastes are nice, the tastes are bold and tastes are still in those old varieties you know they have got their own flavours. I think for the next generation, those who want to grow them commercially there is opportunities for these varieties to be used.” (Grower 3)*

*“...I can really see the [economic] potential in this crop. I can see it going a long way as unique... You go into a restaurant and you buy the same old same old, but if you go in there and you see something like taewa, well you’re likely to ask what is this?” (Grower 5)*

*“The resources are there to ensure our survival. So they should be able to, whether we like it or not contribute to our economic survival... [taewa] creates an opportunity for Maori to use their land economically.” (Grower 1)*

Economic sustainability concerning taewa production is another important consideration, and growers identify the need for efficient organisation in the management of taewa production systems to provide real economic sustainability.

*“Sustainability is a whole other factor, it’s about how you manage something and as much as anything that’s a mindset. And there are good land managers and not so good and Maori will be no different... the opportunity to use your*

*land sustainably for economic returns can be achieved through crops such as taewa.” (Grower 1)*

*“I don’t think everyone can survive how we have [small-scale rural grower]... if they need to be productive and make a living out of what they know or what they are going to be taught then they have to be more professional in what they do. Like if you want to become a producer of these indigenous crops, you have to have a seller’s market, you have to guarantee production and all these sorts of things. You can’t just grow some in the back garden and hope you can supply a market somewhere without guaranteeing that you can supply a certain amount for a certain amount of time. You have to do things in a structured way, you can’t just have a back-garden vegetable garden you know we have to become more professional, so that’s where the young generations have to come in... We have to be professional if we want to make it economically viable... there is a lot of competition now, you know with these commercial growers contracted to supermarkets are cutting people out of business... They [taewa] are niche crops to me and they are probably worth more, you know they have a higher value, I mean now you have people looking for these varieties and paying premium prices for them but we just can’t supply them. You know the guaranteed production is not out there.” (Grower 3)*

In terms of the economic aspects of taewa production, growers in this case study considered survival and economic sustainability as important. Growers also identified the opportunities for economic success through taewa production. Nevertheless, their success as taewa growers can not be explained solely through economic analysis because the growers in this case study prioritised other (non-tangible) aspects.

#### **4.5 Maori values and tikanga**

*Kia mau ki to Maoritanga*

Holdfast to your Maori culture

Values or ordinances are what define a people in practice. An appreciation of Maori values is grounded in an appreciation of whakapapa. Whakapapa influences and determines Maori values so far as it establishes an identity, from which common values can be built. Importantly, Maori values will vary depending on the individual, reflecting the environment they live and have been brought up in. Growers described Maori values as relevant to them and important to their identity and well-being.

*“To apply whakapapa is your values set... All values ultimately are an application of who you are... [being] able to live by a set of values is to be able to have a confidence and an identity.” (Grower 1)*

*“How much it [Maori values] needs to impact on your day to day working situation depends on [your] job and depends on the freedom you’ve got to manipulate what you do. But I think for most people they don’t, they go to work, it’s a means to an end. It’s a means to earn money to pay the mortgage or whatever, so the values is what happens in their personal life, you know the values is the rules that apply to their whare [house], to what they do when they sit at the table to start your kai [food] you know that they might have karakia [prayer], that you might take your shoes off at the door, that you might not talk about whakapapa around food and all of that sort of thing, but that values set is theirs and it’s a personal values set and the parents will relay the same values set to their children who will relay it to their children and there will be differences and so there should be because that’s the nature of being human is that you will work to the environment that’s around you. We were brought up with an old values set because we were brought up with people who came from another time. They were very religious - for the want of a better word, as in respecting a higher element. It was about being able to recognise that higher element you know in their lives so yes they had a day to day life and it was a certain amount of drudgery and everything else, but at the end of the day there was another sort of realm to where they were at and that would ensure that things got better or came together appropriately and you know contributed.” (Grower 1)*

Maori values are a significant part of taewa production for many growers, and are strongly reflected in the relationship between growers, the land and whanau. Additionally, Maori values and principles do not exclusively apply to taewa and other horticulture, but extend into and contribute towards all aspects of Maori society.

*“Maori values are a very important part (of my taewa production system) especially that whakapapa and carrying on the traditions...” (Grower 4)*

*“Its good principles that don’t just apply to gardening but they apply to life. And you know they might not appreciate it or understand it until they are older, until they are married with children, then they will remember.” (Grower 4)*

To conceptualise Maori well-being, ‘Tapa Wha’ was described by Grower 1. Tapa Wha describes the holistic nature of Maori values and how they in turn influence Maori well-being, and is described with four contributing factors: te taha wairua (spiritual element), te taha whanaunga (social element), te taha hinengaro (mental element) and te taha tinana (physical element). These four elements or contributing factors in turn describe te (taha) mauri, which reflects the balance or resultant state of Maori well-being.

*“...as an identity thing and as an opportunity to contribute to Maori well-being in 2000 and 5, 6, or 7 what are the elements that comprise Maori well-being? te taha wairua – the spiritual element, te taha whanaunga – the social element, te taha hinengaro – the mental element, and te taha tinana – the physical. So to satisfy Maori well-being is to make all those elements good, and horticulture can contribute to that. Those four elements, Tapa Wha they call them. So what the eye sees is only one element of four dimensions, and we tend to focus and other cultures tend to focus just on that physical without actually considering those other elements. But to be Maori and to look for [Maori sustainable development] is to contribute to those four elements, and to ensure the wellbeing of all four, because when they are all in tune that’s when everything’s right. From a cultural point of view that opportunity to get out and interact with the whenua physically is good for you, spiritually its*



*linking you back to Papatuanuku – that is the parent you know, that is the mother. The hinengaro is that it makes you think, you know you don't go out without thinking about the climate, the weather, the time of the year, you have got to look at that element of thinking. And the whanaungatanga is the fact that you bring other people along side you to achieve the end - you know you don't do it alone. So it contributes to all four elements and it has too... That's not a unique thing for Maori; it's just that other cultures express that in other ways. But for Maori we express it as te taha tinana, te taha wairua, te taha whanaunga, te taha hinengaro, and some people add te taha mauri. But te taha mauri is that complete set, so when it all comes together the mauri is just so. That's the cultural element.” (Grower 1)*

Tikanga is a noun which loosely refers to the customs and habits of the people, but has the connotations of the reasoning behind these actions. If it is the whakapapa, and other concepts which built the values, beliefs and actions of Maori, then it is also these things which create the tikanga – customs and habits. All the daily activities undertaken by Maori as part of customary lifestyle including the various management methods associated with crop production are based on tikanga. They are practiced in accordance with the beliefs and values of the people, built over centuries – modern society has incorporated the tikanga of Pakeha with that of Maori. This is an important consideration because all growers identified the potential challenges surrounding the evolution of methods and management concerning contemporary taewa cultivation. The general opinion seems to support the growth of Maori tikanga, incorporating and engaging potentially useful technologies and practices of today. The growers interviewed do not see such adaptation as detrimental to traditional Maori tikanga, but rather see knowledge and practice as dynamic factors reflecting the particular opportunities and constraints of an environment.

*“Even the old people responded to their environment. If something was happening with the fisheries that was affecting how things were they re-worked how things were, they responded... so it's no different to that [now] it's just that the impacts and the effects have been a lot more and a lot stronger*

*and a lot faster coming at them so the responses have to be a lot quicker. So tuturu [original, pre-influence from other cultures] Maori to me, is something back there in that time. Because even the most staunch [Maori] people of today still have influences that come from outside of tuturu Maori. So their response will always, somehow reflect some of those influences.” (Grower 1)*

*“Maori matauranga [knowledge] didn’t stop, it advanced all the time with the new technology, with their new technology... you take when the Pakeha’s came along with their shovels and spades the Maori didn’t stick to their digging sticks did they? Then they came along with the plough, and the Maori didn’t stick to their shovel they used the plough. You see they moved forward with the technology.” (Grower 2)*

*“Personally I still grow traditionally because I am not growing things commercially, but I can still see for the modern person no reason why people can’t move on and use modern technology... I think cultures have to adapt to survive, I think you have adapt in certain ways to survive as a people or to survive in what you do... to me culture doesn’t stagnate and become stationary in the one position, I think it has to move. The values are still there, you know that we have been brought up with but you have to adapt to the times.” (Grower 3)*

However, there is a point of difference between growers concerning organic cropping. The majority of growers saw the benefits of adopting available technologies including the use of herbicides and pesticides; however, there is a view that organic production is more appropriate and ‘in-line’ with traditional Maori tikanga and that this should not be compromised.

*“...I’m organic, I don’t use any sort of sprays which is double the work really but its all good. Maori grew things all their lives organically and just used nature, the birds and that sort of thing for the benefits and the goodness... I’ve got a certificate in organics, a two year course on that” (Grower 4)*

*“We have grown them [taewa] for many, many years and we grow them on a bigger scale than they used to be. Back in those days you might have half a dozen rows but nowadays you might have ten rows. To me this is 2007, not 1807 and you move with the times. If this knowledge and technology of 2007 is going to help us to get a better crop [and] make for easier work these things are advantageous for us, you take advantage of this. Although a lot of people are against spraying and that sort of stuff - organic or not. To me, if I can spray something that will kill the bugs for me and give me a reasonable crop... a man's silly if he doesn't use some of this modern technology in my view... They [ancestors] looked for new knowledge to help and enhance what they were doing because your population was getting greater you were able to sustain them because your knowledge advanced... you know if the population in your hapu [sub-tribe] moved by a couple of hundred people say, well you had to have enough coming out of your mara [garden] to sustain them until next season. And so by using new technology and in this modern age it's the same thing.” (Grower 2)*

Traditional Maori values are derived from whakapapa. They are holistic, and provide a means for Maori to experience and interpret their environment, strongly influencing aspirations of well-being. Appreciating this holistic nature means that values may be anything – physical, spiritual, conceptual – that Maori attach importance to. In relation to land, tikanga determines how crops are managed and how particular resources are harvested or conserved. While horticultural practices related to taewa cultivation have adapted and modernised, traditional values have remained a significant part of, and are reinforced by taewa production.

#### **4.6 Manaakitanga**

*Aroha mai, aroha atu*

Love received, love returned

Manaakitanga is a particularly strong influence in Maori society and can not be underestimated. It reflects aspects of everyday life portrayed through

hospitality and kindness to others. A key part of manaakitanga is showing hospitality to visitors. In most cases this occurs through the offering and preparation of kai and a place to stay. Growers described the opportunities taewa provide, allowing growers to make a uniquely 'Maori' contribution:

*"We use a bit for the marae and give half of it away; you know what Maoris are like."* (Grower 2)

*"...it helps to sustain their marae you know when they have hui and other guests as well as supplying other marae up the river."* (Grower 2)

*"Most of what we have grown over the years we have sold... to offset some of our costs, but a lot of ours will [also] help the marae for their catering side. Most of them are for their catering because a lot of the maraes have a lot of people coming through every year so that offsets some of their costs for buying vegetables and stuff."* (Grower 2)

*"We had a farm so we'd grow for our own relations plus the marae and ourselves, we would probably have a vegetable garden of a couple of acres annually."* (Grower 3)

*"Some of the older kaumatuas, the older people grow it [taewa] at their marae which is sort of a focal point, and when you go there you all bring something. So they don't have to think twice about what am I going to take for this hui? They always supply the taewa for the kai... It's unique to a Maori occasion to supply Maori food."* (Grower 5)

*"I had quite a few, sufficient to share out with the whanau and the wider whanau rather than just keeping it in the house here... I share it out and give it to the old people and whoever wants it, if I'm digging a row and someone turns up well they can help themselves."* (Grower 6)

*"I like to share it with the old people and we do have a few old people round here and even if you give them say five or six at any time with only two in the*

*house... if you do it repeatedly it's appreciated. You see if I grow them it doesn't have to be in their cupboard.” (Grower 6)*

Therefore, taewa production contributes to Maori development by reinforcing manaakitanga through traditions of gifting and hospitality. The ability to exchange and share food, as expressed through manaakitanga is an important traditional Maori value. Maori values are part of a holistic application of whakapapa and the realisation of values such as manaakitanga also allows for the expression of other important cultural values such as whanaungatanga.

#### **4.7 Whanaungatanga**

*Ma wai e moe te tane mangere ki te mahi kai? He ra te kai ki taua kiri, e!*

Who will marry a man too lazy to till the ground for food? The sun is the food for the skin of such a person!

Literally the action of being a whanau or family, whanaungatanga is a primary concept in Maori society. Whanaungatanga represents an important bond between people which strengthens communities and individuals by promoting kinship. Activities that promote joint or communal interaction are also promoting whanaungatanga. Planting, management, harvesting and other activities associated with taewa cultivation and production effectively facilitate and promote whanaungatanga. Growers described the relevance and how whanaungatanga related to their production systems:

*“A lot of it is just about that whakawhanaungatanga, is that relationship stuff. You go to hui and it's not about taewa at all, it's about having some common ground and having something that brings you together and it's just time together in some cases. Spending time that's positive time, that's not sort of politically charged... that is time that they [growers] enjoy.” (Grower 1)*

*“You know they [certain other growers] are retired, certainly it's a whanau thing...” (Grower 5)*

*“We’ve interchanged a lot, shared, and that’s good.” (Grower 4)*

*“We try to get them [rangatahi – young Maori] in at harvest time you know everyone tries to help when they can when we harvest.” (Grower 3)*

Taewa management has always allowed for and recognised differences with respect to men and women in Maori society. Traditionally men and women had different roles and responsibilities associated with taewa cultivation and management which were respected and complemented each other. As described by Grower 1, taewa production in contemporary society still provides opportunities for both men and women:

*“The reality from a [Maori] cultural perspective is that everything has a male and female element so as much as humans have male and female components so to do your food sources... [Gender roles] are not an issue in contemporary systems at all and in a traditional sense it was applied to food production in general rather than just taewa etc. Women of child bearing age were not permitted to carry heavy weights, the women’s monthly cycle was respected and things like that. I think they were more common sense type things that are mostly accepted as being relevant today as well.” (Grower 1)*

The fact that taewa production can and does offer opportunities for both men and women is encouraging, although, as described by Grower 2, both genders are not always equally represented in this way with the younger generation of Maori men being underrepresented.

*“The other day we had a health hui... I brought some seed potatoes of the Maori varieties. Well I was quite sad because kids being on holiday most of them were there and some of the mothers were there, but there were no males, no fathers there. The people who were working with the runanga [Maori group/assembly] and sponsoring the thing, they were all there that’s OK but I was looking for the male side of some of the parents that turned up. But the females were there...” (Grower 2)*

Clearly whanaungatanga is another way in which traditional Maori values are realised through taewa production, allowing for the expressions and acts of kinship and togetherness. Whanaungatanga represents another important traditional Maori value (as does manaakitanga) and is an important application contributing towards appreciations of Maori well-being.

#### **4.8 Food security**

*He kai kei aku ringaringa*

I can grow food with my own hands

Providing and sustaining ones self by means of horticulture has always been an integral part of Maori society. Taewa are a good example of such a crop, playing an important role in the food security of many Maori. Growers described the importance of self-sufficiency within an historic context and also how it relates to their current taewa production systems:

*“When you look back at my time as a young person most Maori had a big marae and used to grow a lot of taewa themselves... Every year you had enough taewa to last until the next year. We used to put all the taewa on top of the fern and it used to keep them through the winter... when you wanted taewa you used to take them out of the fern... you know they used to sort out all their seed, and keep their seed for the coming season.”* (Grower 2)

*“You actually see something living, so there is a whole positive thing... you're giving something a beginning and at the end of it is what you do with it. You can eat it; you can do all sorts... that's a steady source of food.”* (Grower 5)

*“Growing up we just grew them [taewa] for the sake of eating - much the same varieties, no real changes.”* (Grower 6)

*“The old people they used to grow it [taewa] mainly for crops for eating... every year.”* (Grower 7)

Despite the significant role horticulture has had in determining the self-sufficiency of many Maori, much change has occurred subsequent to colonisation by Pakeha. Colonisation has contributed to a drift away from the traditional importance of self-sufficiency and provision, as described by Grower 1:

*“Probably to be blunt is to say that colonisation has changed Maori society from the point of being subsistence to now being almost reliant on other elements of society to feed themselves, and its also created a situation where Maori wanting more and more of the other life, the extra goods you know, the chocolates and the flash clothes and all of that sort of thing has moved them away from horticulture being able to provide that...”* (Grower 1)

Growers recognise the unique relationship that Maori have with taewa but also the broader opportunities taewa production facilitates by providing that opportunity for Maori to get back to their horticultural roots. Taewa are not a difficult crop to grow, which makes them an ideal ‘first-step.’ Once people see that they can grow taewa, the idea is that they will endeavour to pursue cultivation in other horticulture. Therefore it is not just about the provisions of taewa, but also facilitating a return to the whenua, potentially leading to involvement with other crops and land-management practices.

*“Horticulture is an element of life for a lot of people; you know to produce the kai that they eat... [even if] they are not growing traditional crops but they are still working the whenua.”* (Grower 1)

*“It [taewa] gives those people insight or know-how... to grow their own garden, to make themselves self-sufficient. You know a lot of those people have got plenty of ground but they are a bit to tired to put the garden in for themselves. Maybe this [taewa] might be an initiative for them to grow their own garden... and not only that, if they can grow their spuds [taewa] and grow their kamokamo, well then they think well I can grow some pumpkin, carrots, cabbage and that sort of stuff. Just a starting point; that was the thinking*



*behind it because we know very well spuds and kamokamo are easy to grow... The biggest value is that you are growing your own food.” (Grower 2)*

*“Well potatoes are not difficult to grow, you just have to put in some labour, you just have to look after the husbandry side.” (Grower 2)*

*“It’s easy to grow... don’t [think] it’s something that is going to be too time-consuming.” (Grower 5)*

*“What we at Tahuri Whenua’s about - You can grow your own kai, [he kai kei aku ringaringa] provide for yourself. All it needs is a little bit of work a bit of mahi [work] is all.” (Grower 2)*

The perceived health benefits associated with taewa cultivation were also described - the fact that those growing taewa get some exercise outside in the fresh air as well as the high nutritional value of the crops. Recognition of these perceived health benefits does seem to be a reflection of modern society and not a major ‘driver’ for more traditional growers. However, important issues surrounding Maori health including ailments such as diabetes were described with particular concern. The potential for positive impacts in physical health is an avenue of taewa production which warrants further research.

*“The benefits of the taewa, you know they have ...nutrients that curb diabetes. What grows in the potato is very good for diabetes... and I learnt that from a Pakeha lady... that’s important because a lot of Maori suffer from diabetes.” (Grower 4)*

*“The health benefits are probably a modern approach to these crops because in the old days they all worked hard and the body didn’t get the chance to carry too much fat etc. In an ideal world it would be good if the food we were producing and promoting was healthy to our [Maori] people as then it gives the whole thing an added value.” (Grower 1)*

Food security, including food self-sufficiency and the provisions of nutritious food are important goals for many of the growers interviewed. Taewa production provides these outcomes for growers, therefore contributing towards their aspirations of well-being. Additionally, growers describe taewa cultivation as an ideal 'first-step' into horticulture, potentially providing a stepping stone into other land management techniques and livelihood possibilities.

#### **4.9 Future Maori development**

*Ka hua, ka tupu, ha toa*

Creating, growing, succeeding in our future together

All the growers interviewed, indicated a strong desire to contribute towards a productive and successful future for the rangatahi (young Maori). There is a real drive and motivation behind what is seen as both a responsibility and a passion, to share their knowledge and experience with traditional Maori crops such as taewa.

*"Maori development probably from my perspective is about how what ever we do can contribute to the success of Maori in this day and that's socially, culturally, economically, [and] environmentally. That what we do can contribute to the next generation; to their well-being, to their opportunity."*  
(Grower 1)

*"I think us older people have got a responsibility to let people know how to view things, and it may not be relevant to some but it could be to others, you know it's a basis of where we stem from as people, you know your whakapapa..."* (Grower 3)

*"The reality as Maori is that once you are the parent or the grandparent your charge is to ensure that the next generation has the opportunity. Yours has already sort of presented itself so your job is to ensure that as Maori you create opportunity for your children and your mokopuna [grandchildren] that*

*will give them a life at least as good as how yours has been and hopefully better. So it's about setting the scene, whether that is targeted or focused on economic or money factors or whether it's targeted on social position and how you interact with others or whether it's to do with educational factors. That's personal choices about what people emphasise. And this will always be different. Because people look for different things but I think the reality is that Maori want to be able to contribute to New Zealand society as Maori – without other people telling them how they should do that and without those external sort of inputs sort of forcing them to do it in certain ways. So that really if you want to apply yourself to managing the whenua in a cultural way then that's your choice. The reality check is that you have still got to pay some bills and that it's important that your kids get education and that sort of thing. You can't run away from the fact that it costs money to live.” (Grower 1)*

This drive to contribute to the well-being of the next generations has a strong focus on encouraging rangatahi back to the whenua. Bringing young Maori back to the land and helping to rekindle that caring and nurturing relationship with the whenua is a real desire. Growers described a hope that taewa can in some way facilitate and contribute towards a ‘return to the land’ for Maori<sup>4</sup>.

*“The [Maori] kids are asking questions about it like, the Maori potato – why do they look this colour or why are they shaped like this? It might be just trivial questions but it means a lot to them and starts you talking about all sorts of other things [e.g. whakapapa etc].” (Grower 5)*

*“The succession thing is very important and it's a real big issue for Maori at the moment because if you look around and look at your next set of leaders ... we don't really have the strength in horticulture that we used to have. You know when you look at the next... generation of Maori leaders how many of them are from living off the land, growing crops or farming?” (Grower 1)*

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<sup>4</sup> This ‘return to the land’ is encapsulated in the literal meaning of ‘tahuri whenua’.

*“I really initiated that so I could teach them to get back to the land, young Maori, the youngsters.” (Grower 4)*

*“See I have a love for it, but not everyone has. And then by setting up the marae garden I really wanted to let them have that feeling of the joy of growing things. The product was a great result... the ones that worked on it... rangatahi, young Maori; they could see the values of it. You know Annie<sup>5</sup> here, she hadn't been in the garden since knee high with her grandmother, but she could remember and felt the value of it and the hands on... she has noticed the difference. It's good, I love to teach them.” (Grower 4)*

As part of the Tahuri Whenua collective, growers have a forum where this common voice can be united. The hope is that Tahuri Whenua can continue to provide such a forum for interaction while promoting a return to the land encouraging Maori into taewa cultivation and other horticulture. Tahuri Whenua is unique in that it has members from a broad range of society and makes a conscious effort to combine ‘things academic’ with ‘things traditional’. This broad range of interests and backgrounds, all contributing towards common aspirations is described positively by growers:

*“Most Maori don't have the opportunity to get into traditional horticulture... Marae and iwi want to be involved with the [taewa] project. This interest needed to be structured which brought forth the Tahuri Whenua. It's a bit altruistic but it's about how it contributes to the big picture rather than how it contributes to me personally - the big picture of Maori development in general.” (Grower 1)*

*“I think one of the advantages [in Tahuri Whenua] is that association of things Maori and things academic. It is a nice unique situation... a quite interesting mix... happening in a friendly environment. A lot of things happen [elsewhere] as a response to things not working and it's retrospective or it's in that ‘fix-it’ mode whereas what we're doing is not responding to something that's gone*

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<sup>5</sup> The name Annie is a pseudonym, used to respect the identity of the individual.

*wrong it's building on something that's going right. You have always got those who don't want to mix it [Maoritanga with things academic]. It's definitely a minority and there is usually some ulterior story behind it. You know you get people that say you are a sell-out because you are selling our foods, and I'll say you can believe how you like, but the old people grew crops, sold them to get by in this world. What's the difference between us? The other thing is that if Maori don't take the bull by the horns then someone else will and then that opportunity is lost.” (Grower 1)*

*“We have just got to be proactive and ensure that Maori are the ones that take it forward for their own benefits and the generation's.” (Grower 3)*

Growers do recognise the constraints for rangatahi becoming involved with growing taewa. A primary challenge described by growers is that many Maori are removed from the land which has meant many now lack the physical resources needed.

*“The system has caused Maori to shift away (from the whenua) to find... that opportunity... minor interests in land and the inability to raise finance to change what you are doing and all of that people have had to look further a-field than where they used to. So the system has encouraged Maori to shift away... once you shift away and you get the taste of the other side of the fence, you know it's not that easy to shift back... it's a step backwards for a lot of people.” (Grower 1)*

*“Well first of all we have got to have the availability of land, to make sure that whether its iwi or hapu or families that they have land available to our own who want to take this parcel and become 'farmers' in a sense of growing vegetables, not only taewa.” (Grower 3)*

Contemporary lifestyle and the availability of food and other produce has also contributed to this separation from the whenua:

*“Yeah, they are not getting into it and it’s only because things are just too hard... work commitments - people are just too busy running around... also the availability of food products on the market. Food is relatively quite cheap now.”* (Grower 5)

It is these pressures and influences associated with being separated from horticulture not the difficulty involved with producing taewa which restrict the ability of Maori to become involved in taewa production. As Grower 2 described, you do not need large amounts of land to grow taewa, it is rather the separation in the relationship with the whenua and the resultant lack of awareness which is the issue.

*“Land shouldn’t ever be a problem, if all you have is a house with a bit, even a lawn as big as this [small] you can still grow potatoes.”* (Grower 2)

While separation from the land has been raised as a concern, the primary constraint appears to be the resultant lack of knowledge relating to whakapapa and the values and practices associated with the whenua, because in many cases where land is available it is ‘wasted’. Growers have described the lack of knowledge and exposure to traditional crops such as taewa appears to be the major constraint, to renewing that relationship with the land:

*“You know once upon a time there used to be all houses out there but now they have all gone, they’ve shifted to town. Now that land is vacant, all it is doing is growing hay.”* (Grower 2)

*“I think it [the major constraint] is lack of knowledge... there are sources out there, you know you have just got to plug away and ask and look around, but being part of Tahuri Whenua has increased my thoughts... spreading out, you know they have the same problems that you have, that I have, and then how do they overcome that, it’s the same sort of thing, it’s neat.”* (Grower 4)

There is also the challenge of acquiring taewa seed. While most taewa growers that were interviewed had no reservations about sharing their seed, this does not change the fact that there are not many of these growers around and that many of these growers are not widely advertised which makes sourcing seed difficult.

*“Well you need the seed, people need the seed but they are not difficult to grow.” (Grower 2)*

*“Last year we gave away a lot of seed for people to go and grow their own taewa. We went to [different] runanga’s and meetings of marae people to [encourage] them to grow their own taewa... We were giving people seed to grow their own mara.” (Grower 2)*

To give Maori that chance to renew a relationship with traditional crops and the land, growers have acknowledged a real need for first-hand experience. Exposing Maori to crops such as taewa so that they can actually see and taste the crop makes the process real and seemingly much more relevant and attainable.

*“First, and mostly, is like some of the ones I have been taking home you know after a harvest I’ll take some of them home and like my kids... they really have acquired a taste for it [taewa] and think it is really nice, and they like the colour, they ask a lot of questions.” (Grower 5)*

*“It’s the taste, they have got to get the taste, you know the looks are nice and everything but they have got to acquire the taste for them to be interested... giving them that opportunity to actually get some [and] to eat it is really the hardest bit because there is hardly anything out there on the market... Giving these guys [young Maori] the opportunity to try some, getting the taste of it because why grow it if you don’t like it. You know the colour might be really impressive but hey at the end of the day you can paint a potato purple or whatever, but yeah getting that taste.” (Grower 5)*

Growers are motivated to contribute to the well-being of the next generations of Maori and believe traditional horticulture, such as taewa production has a significant role to play in facilitating this. Bringing young Maori back to the land and rekindling that relationship of care and nurture with the whenua is an important and relevant aspect determining the well-being of growers. Contributing towards the future of rangatahi is portrayed as a responsibility for growers and taewa production provides them with an opportunity to positively contribute towards this.

#### **4.10 Conclusion**

Results showed that the growers in this case study perceived Maori development to be shaped by those intangible aspects of growing taewa that lead to their well-being. Economic outcomes are seen as important factors but are considered with lesser significance to the more intangible aspects associated with the application of Maori values and knowledge. The relationship between taewa, whakapapa and Maori values reinforces cultural identity, and is critical in terms of appreciating the significance of taewa as a crop. Cultural aspects associated with taewa as a food (i.e. manaakitanga, whanaungatanga) can be realised and are significant contributing factors to growers' well-being. Growers appreciate the significant contributions which taewa production has to offer future generations and are themselves motivated to encourage and foster a 'return to the land' in the rangatahi of Aotearoa. Taewa production facilitates this desire, and in so doing, further contributes towards the well-being of the growers.



## **Chapter 5: Discussion**

### **5.1 Introduction**

This chapter discusses the views of taewa growers in relation to contemporary appreciations of Maori sustainable development (as described in chapter two) addressing the overarching research question:

*'How does taewa production contribute to Maori sustainable development for the growers in this case study?'*

Development (as defined in chapter two) can be described as the realisation of well-being through the achieving of different livelihood outcomes. This chapter builds on this appreciation, describing outcomes associated with taewa production as they contribute to appreciations of Maori well-being, while discussing these findings within the context of the sustainable livelihoods approach.

### **5.2 Maori sustainable development**

As described in Chapter 2, to facilitate and encourage appropriate development, indigenous peoples should be encouraged to take control of their lives and destiny through some sort of strategic direction (Durie, 2000) that can be used as a pathway to empowerment and less dependency (Harmsworth, 2002). Maori sustainable development is a term reflecting the aspirations of contemporary Maori in Aotearoa - New Zealand. It describes holistic development which prioritises Maori values, a strong sense of cultural identity and purpose, and the retention and use of Maori knowledge (Durie, 1998; Harmsworth, 2002). Williams & Robinson (2000) emphasise the significant association between Maori values and the enhancement of social/cultural capital which was echoed by the growers in this case study, who related the enhancement of cultural assets through an application of traditional Maori values and knowledge.

The growers interviewed also perceived Maori sustainable development to be grounded in an appreciation of cultural identity through whakapapa, and indicated their need to accommodate the expression of Maori values and knowledge. Furthermore, growers emphasised the contribution they make towards the well-being of future generations and the role of taewa production. There is a belief and inherent responsibility shared by growers which is manifested in a desire to teach and facilitate a realisation for rangatahi concerning taewa production and the associated outcomes. This research has shown that taewa production does contribute towards Maori sustainable development for the growers in this case study, allowing growers to achieve a range of both tangible and intangible outcomes. These following examples describe in greater detail, how taewa production has contributed to Maori sustainable development, promoting Maori values and facilitating an awareness of cultural identity.

### **5.2.1 Whakapapa**

Harmsworth (2002: 3) describes a “*strong sense of cultural identity and purpose*” as critical considerations pertaining to Maori sustainable development. For Maori, whakapapa is the basis and strength from which Maori identity can be realised. This was described by Grower 1: “*the defining factor that makes anybody Maori is quite simply whakapapa*”. As described in Chapter two, whakapapa provides a greater understanding and grounding which underlies human relationships, an understanding of the natural world and how it is structured, defining the role and place of people in relation to the environment and reasoning concerning how and why a role should be carried out (Roskrug, 2006). Growers from the present research supported this appreciation, describing whakapapa as more than just names and layers as it is often portrayed in genealogies, but also “*the stories, it’s the evolution of the relationship between our [Maori] people and the resource [whenua]*” (Grower 1). This relationship with the whenua is an important part of whakapapa and this understanding is critical in terms of appreciating the cultural significance of taewa as being more than just a crop.

Taewa are described as a taonga, a treasured possession whose care and conservation is a matter of historical record and contemporary pride and interest for Maori (Lambert, 2007). Grower 2 builds on this description commenting that “...we say that we had a whakapapa to them [taewa]”. Part of the reason taewa are held in such high regard is that they provide a link to a most precious resource – the whenua. Although taewa are considered a special crop in their own right, they can also facilitate a connection, a traditional link to the whenua for Maori. By cultivating taewa, growers are able to connect with the land in a traditional manner of caring and nurturing, continuing a relationship Maori have shared for generations.

A traditional Maori worldview is based on whakapapa and represents a means for describing and relating aspects of the world we live in including all components of the whenua. The association with whakapapa and Maori identity has shown that taewa production has contributed to the well-being of Maori in this case study and can positively contribute to Maori sustainable development.

### **5.2.2 Maori values**

Rokeach (1968: 60) suggests that values are located centrally within people’s overall belief system, and provide the standards against which we generate and maintain attitudes towards the world (both tangible and intangible) around us. Described as ‘abstract ideals’ (both positive and negative) and ‘moral conceptualisations’, values are learned and enduring (Rokeach, 1968: 124).

Traditional values are highly relevant in modern day Maori society and fundamental for forming principles and a guiding philosophy for culturally based sustainable development (Harmsworth, 2002). Grower 1 illustrates the relevance and significance of traditional Maori values as an application of Maori identity:

*“To apply whakapapa is your values set... All values ultimately are an application of who you are... [being] able to live by a set of values is to be able to have a confidence and an identity.”*

Taewa production has been shown to positively contribute towards traditional Maori values, in particular facilitating a means for manaakitanga and whanaungatanga. As described by Williams and Robinson (2000) in Chapter 2, manaaki and whanaungatanga are fundamental traditional values contributing to Maori social capital. Durie (1998) and Harmsworth (2002) describe Maori sustainable development as holistic development which prioritises Maori values, providing further support to affirm that taewa production has contributed towards the well-being of Maori growers in this case study.

### **5.3 Sustainable Livelihoods Approach**

The sustainable livelihoods approach focuses on livelihood assets, which recognises what people have (and what people don't have) rather than an analysis of needs. The SLA recognises that people hold valuable and essential assets that must be acknowledged and utilised (Helmore and Singh, 2001), and is based on the premise that the asset status of the 'poor' is fundamental to understanding the options open to them, the strategies they adopt to attain livelihoods, the outcomes they aspire to, and the vulnerability context under which they operate (Ellis, 2000: 31-32).

'Development' can be described as improved well-being which is attained by achieving livelihood outcomes which must be defined by people themselves. However, 'Western' development has traditionally prioritised economic development and assumed that outcomes are primarily economically based. This research shows that Maori in this case study have defined outcomes that are primarily non-economic and intangible, and that these outcomes including values and concepts such as self-sufficiency, manaakitanga, whanaungatanga and a contribution to future development (i.e. youth) can be realised.

While tangible outcomes such as money as well as health and nutrition were also identified as important considerations associated with taewa production, it was the intangible outcomes that were of primary importance. Reasons for this include the prioritisation of traditional Maori values and ethics; however it also reflects the influence of associated external incomes. All growers had additional, external means for financial security which invariably contributed towards their ability to prioritise intangible assets associated with taewa production and is an important consideration.

The significance of non-tangible outcomes within Maori society is supported by Lambert (2007) who comments that while Maori seek access to commercial markets they, *“simultaneously participate in a broader cultural economy in which cultural concerns and practices to Maori may change, but are not sacrificed as they have historically defined Maori resilience”* (Lambert, 2007: 8). Therefore the SLA is supported, highlighting a range of outcomes which can be realised through taewa production for the growers concerned.

#### **5.4 Social and Cultural capital**

As described in Chapter 2, indigenous initiatives which draw on residual stocks of social/cultural capital for their impetus, provide useful insights into problems conceiving and operationalising ‘sustainable development’ (Loomis, 2000). Putman (1994) further describes that *“a region’s chances of achieving socioeconomic development [depend] less on its socioeconomic endowments than on its civic endowments”* (Putman, 1994: 157). Therefore, social/cultural assets are a central consideration for this research.

Enhancing and sustaining cultural assets enhances capabilities (human assets), ensures the relationships of people with their environment (natural assets) are sustained, gives people a sense of identity, self esteem and dignity, and enhances social assets and the relationships and trust between people (Bebbington, 1999; Overton *et al*, 1999). However, despite a number of authors noting that sustainable livelihoods analyses need to take more account of gender, age, ethnicity and class (Bebbington, 1999; Ellis, 2000) or

that other aspects of cultural sustainability are important to sustainable development (e.g. Overton *et al*, 1999; Clark, 2002) there has traditionally been an inherent lack of cultural consideration in the SLA. Cahn (2006) comments that the sustainable livelihoods framework has the potential to incorporate cultural aspects, and details a revised SLA framework, where culture is an 'environment' within which livelihoods exist, where culture interacts with every aspect of a livelihoods system, and where culture is ascribed as a unique livelihood asset (see Figure 1).

Taewa growers involved in this case study expressed the profound influence of traditional Maori values and appreciations to their livelihoods, including whakapapa, manaakitanga and whanaungatanga. As described in Chapter 2, Williams and Robinson (2000) communicate a range of inherent traditional Maori values which contribute towards social/cultural capital and Maori identity including manaaki and whanaungatanga. Growers have illustrated the holistic nature of these Maori values through the description of 'Tapa Wha', where whakapapa and therefore culture is seen as an underlying thread.

#### **5.4.1 Tapa Wha**

A holistic approach in Maori terms requires looking at the world from the perspective that everything is connected through whakapapa. 'Tapa Wha' as described by growers, represents this holistic view of the world through four dimensions or states of reality:

- *Te taha tinana* – the physical dimension.
- *Te taha hinengaro* – the mental dimension.
- *Te taha wairua* – the spiritual dimension.
- *Te taha whanau* – the family dimension.

Tapa Wha describes four dimensions from which an interwoven succession of Maori values and ordinances spanning social, cultural, physical, human, financial, and natural assets as described in the SLA can be realised. Importantly, Tapa Wha illustrates the need for all assets to be considered as

interrelated and to be accounted for in a holistic appreciation where culture is a unique, central consideration.

#### **5.4.2 Description of sustainable livelihood assets**

By appreciating the holistic nature of Maori well-being as illustrated in Tapa Wha, and acknowledging the all-encompassing influence of whakapapa, it becomes apparent that culture is a very real consideration which has profound influence on the livelihoods of the growers concerned. Excluding culture, or addressing cultural assets as assets unrelated to other assets, would be inadequate in this research where research participants described a holistic and interrelated appreciation of Maori well-being. This view is supported by Workman (1999) who claims that Maori approaches to development do not recognise clear sectoral demarcations between social, cultural and economic areas. The need for such a holistic perspective is also shared by Durie *et al* (2002: 12) who claim that Maori development could be undermined if a narrow development model, *“at odds with Maori world-views, were allowed to signpost the road ahead”*. Furthermore, as culture influences the way people value their assets, culture influences the way in which assets are managed (Carney, 1998: 11).

Therefore, not only do social and cultural assets overlap as is shown in Figure 2, but the growers in this case study have described a Maori perspective whereby culture, and cultural assets are central to, and influence and overlap into all assets types depicted in the SLA (i.e. natural, social, human, physical, and financial). Cultural norms, heritage, customs, tradition and values influence all other livelihood assets and therefore the influence and interaction of cultural assets with other assets needs to be emphasised. To separate culture as a separate and unrelated ‘asset’ in this situation could potentially be misrepresentative, whereby cultural considerations are not appropriately considered as they apply to each respective component in the livelihoods framework.

Figure 3, describes a new model of SL assets as applicable to the growers of this case study. All assets are shown to be related, having influence on each other. Additionally, cultural assets are ascribed a central position to emphasise the particular significance of cultural considerations in this research.

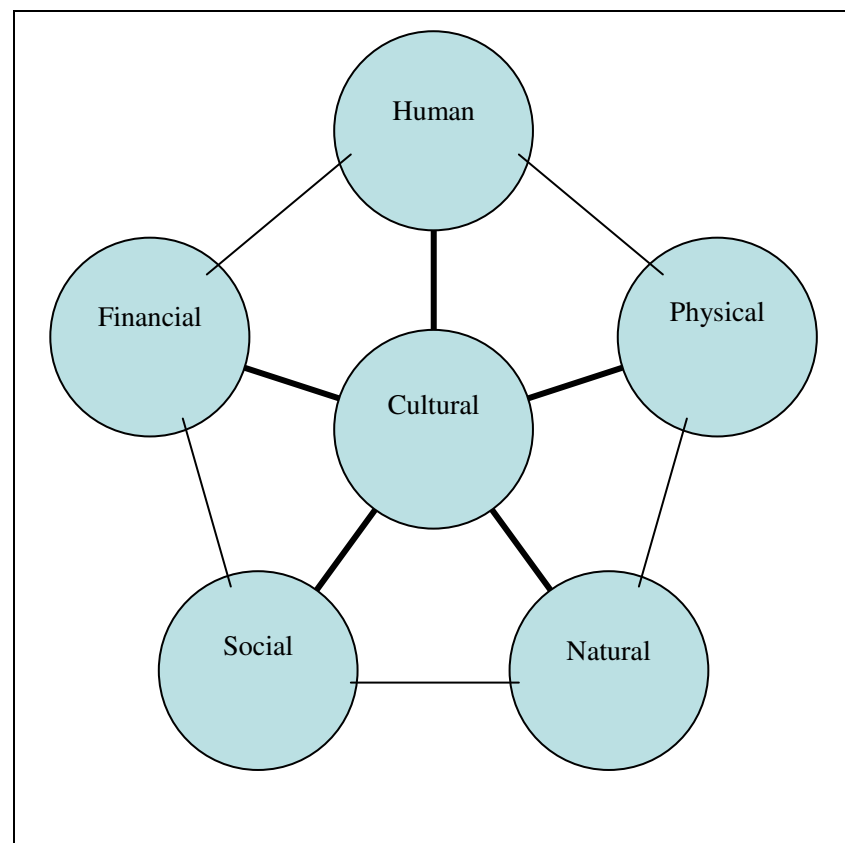


Figure 3: Description of livelihood assets.

Highlighting culture as a unique, separate asset as described in the adapted sustainable livelihoods framework (Figure 1) highlights the importance of culture as an asset in the SL framework – culture is not explicitly mentioned in the traditional SLA. However, the results of this research showed that cultural assets strongly influenced and overlapped with all other assets (more than other assets influenced each other) as depicted in Figure 3. Clearly cultural assets were enhanced by taewa production, thereby strengthening and influencing other assets which illustrates the positive contribution taewa production makes towards appreciations of well-being for the growers.



## 5.5 Conclusion

This discussion has shown that the growers in this case study have appreciations of Maori sustainable development that are consistent with those concepts described in the literature. In addition, growers also expressed a desire to contribute towards the development of future generations. Taewa production has been shown to positively contribute towards this collective understanding of Maori sustainable development for the growers concerned.

A range of both tangible and intangible livelihood outcomes can be achieved through taewa production including, key outcomes contributing towards cultural identity, values and traditional knowledge. For these reasons it can be seen that 'alternative' models which reflect well-being such as SLA are consistent with appreciations of Maori sustainable development where 'traditional models' for 'Western' development are not. Many 'traditional' models for development and well-being exclude or diminish the significance of intangible assets, such as the social and cultural considerations, which have been highlighted as significant livelihood components for the taewa growers in this case study. A sustainable livelihood, and thus 'development', is about achieving livelihood outcomes and therefore taewa does contribute towards development.

Cultural assets have been shown to be significant factors determining the livelihood outcomes of the growers concerned while also having significant influence on other assets as traditionally described in the SLA (e.g. natural, human, physical, social, economic). This understanding has led to a revised appreciation of culture as an overarching, central consideration in a SL framework for this research.

## **Chapter 6: Conclusion**

### **6.1 Introduction**

This dissertation explored; *'how taewa production contributes to Maori sustainable development'*. The outcomes of the research were strongly influenced by the field work which consisted of interviews with Maori growers of the Tahuri Whenua national Maori vegetable growers collective. This final chapter will summarise the findings of the research as they relate to this question, including a short section detailing possible areas for further research.

### **6.2 Summary of findings**

In this research Maori taewa growers have described a holistic perception of development prioritising Maori values, a strong sense of cultural identity and purpose, and the retention and use of traditional Maori knowledge. Growers envisage Maori sustainable development which retains and builds on Maori heritage, contributing towards their well-being, and just as importantly, towards the well-being of future generations.

Whakapapa is the central component determining Maori identity. Therefore, in a Maori context, culture is also fundamentally realised through whakapapa and the application of whakapapa expressed through Maori values. Taewa are considered a taonga, with the growers in this research describing a historic relationship with the crop through whakapapa. Taewa have been left by their tipuna, passed down through the generations to provide for the people. Thus the growers see much more to taewa than just the physical nature of the crop – taewa facilitate a connection, a traditional link to the whenua for Maori. By cultivating taewa, the growers in this research are able to connect with the land, continuing a traditional relationship, realised through responsibilities of care and nurture for this most precious resource. This relationship with the whenua is a significant consideration for Maori and

traditional methods of land management where utilisation such as taewa production serves to facilitate an integral part of Maori cultural expression and therefore well-being.

Growers in this research described Maori values as an application of whakapapa and therefore culture, which can be realised through taewa production. The contribution and realisation of traditional Maori values such as manaakitanga and whanaungatanga are prioritised by growers, and are amongst the primary reasons for pursuing taewa production.

In contrast, more tangible aspects such as economic outcomes were not prioritised by the taewa growers interviewed. However, growers were quick to acknowledge the opportunities and potential for economic growth associated with taewa production.

The realisation of intangible livelihood outcomes including the application of whakapapa and Maori values through taewa production strengthens cultural capital which is an integral consideration of Maori sustainable development. In light of this, a description of sustainable livelihood assets has been used which includes; natural, financial, human, social, physical and *cultural* assets. However, interviews with growers in this research identified that cultural assets strongly influence how other assets are realised and appreciated, therefore a model of livelihood assets has been developed (Figure 3). Cultural assets have been portrayed centrally, indicating the strong influence on the other livelihood assets. Additionally, links between all assets have been highlighted, emphasising the interrelated, holistic nature of livelihood assets within a Maori context. The central and interrelated nature of cultural assets, illustrates the significant influence cultural assets have on the potential for the enhancement of other assets. Therefore, the enhancement of cultural assets has been shown to be an integral consideration determining the viability and contributions of taewa production systems towards appreciations of Maori sustainable development.

### 6.3 Recommendations for future research

The research was based on a case study, limiting its ability to be applied to broader aspects of Maori society. However, these findings may serve as useful indicators for opportunities and challenges that may arise in other examples. The following are recommendations of topics which warrant future research:

1. This research found that taewa production contributes to Maori development largely because of intangible outcomes (rather than economic), and therefore it would be of interest to see if this was reflected in other Maori enterprise. These findings would suggest that other traditional horticultural pursuits (e.g. production of kamokamo, kaanga, kumara etc) and enterprises (e.g. crafts, carving, art) could contribute towards appreciations of well-being even if the economic viability is marginal.
2. Although economic outcomes have not been emphasised in this research, there is room for further research investigating the economic potential of taewa, and how this can enhance Maori development in a sustainable way. Growers in this research have described taewa as a niche crop, which alludes to unique marketing opportunities. If taewa production was more economic, would the contribution towards Maori sustainable development be any different?
3. Growers have alluded to the contributions taewa (production) can offer with respect to health and nutrition. Nutrition and the associated physical requirements of cultivation have been described as beneficial contributing factors towards the health of growers. Therefore, research into these associations would be of interest because these factors have been described as important considerations by growers in this research, contributing towards sustainable development.

#### **6.4 Final comments...**

Taewa production contributes towards Maori sustainable development for growers in this case study, enhancing cultural assets through achieving aspirations of cultural identity and facilitating the application of traditional Maori values and knowledge. Cultural assets are an integral component to taewa production systems, influencing the state of other livelihood assets and determining the contribution towards livelihood outcomes and therefore well-being.

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# Appendices

## Appendix 1: Common taewa cultivars

**HUAKARORO**  
*Creamy skin with cream coloured flesh and a buttery taste*  
Boil, bake, chip  
Good keeper

**KARUPARERĀ**  
*Dark purple skin with deep white eyes - round*  
Boil, bake chip  
Good keeper

**RAUPI**  
*Round, yellow & purple speckled skin with cream coloured flesh & excellent texture*  
Bake, boil, chip  
Good keeper

**MOEMOE**  
*Multi-coloured skin with creamy patterned flesh*  
Bake, chip, boil  
Good keeper

**PĀWHERO**  
*Light purple skin with cream coloured flesh and excellent taste*  
Boil, bake  
Poor keeper

**TE MĀORI**  
*Purple skin, white flesh*  
Bake, chip  
Good keeper

**TUTAEKURI**  
*Long yam-like tuber with dark purple skin and purple flesh*  
Bake, chip, boils quickly  
Average keeper

**KOHATU WHERO**  
*Pink skin, oval shape*  
Boil, bake  
Good keeper

# Taewa Māori

*Traditional Māori Potatoes*

  
Tahuri Whenua  
National Māori Potato  
Genetics Centre  
[www.tahuriwhenua.org.nz](http://www.tahuriwhenua.org.nz)

Copyright – N Roskrige

Source: Roskrige, N., Massey University, 2007.

## Appendix 2: Interview question prompts

Please tell me about your taewa production system.

- What taewa are you growing?
- When did you start growing?
- Size of property / planted area
- Objectives
- Returns / production
- Who is involved?
- Mechanical assistance
- Other horticulture / agriculture / livelihood options

Tell me about why do you grow taewa?

- Social/cultural
  - Reciprocity / Hospitality
  - Tradition / Whakapapa
  - Food security
- Economic
  - Livelihood
  - Profit
- Environmental
  - Responsibility
  - Well suited to area
- Health
  - Being outside
  - Health benefits from eating taewa

## **Appendix 2 continued:**

What do you consider to be the critical or defining parts of sustainable Maori development?

- Maori values
- Social / Cultural capital
- Economic

Which of these elements of sustainable Maori development do you consider to be most important?

- Short-term / long-term

Do you see a relationship between growing taewa and sustainable Maori development?

- How does growing taewa contribute?

Is taewa production important for the future of Maori?

- Livelihood option?
- Compared to other Maori / Non-Maori horticulture

What are other important determining factors of a sustainable future for Maori?

- Education
  - Traditional / Maori history
  - Contemporary
- Land tenure

What are the major constraints for Maori wanting to get into traditional horticulture such as taewa?

- Finance
- Land
- Traditional knowledge
- Seed / plants

### Appendix 3: Field research schedule

- Introductory Tahuri Whenua hui: 10.03.07
  
- Taewa harvest and observation: 26.04.07

Person interviewed	Sex	Date	Time	Interview length	Method	Location <sup>6</sup>
Grower 1	M	24.04.07	8 pm	1 ½ hr	Recorded	Palmerston North
Grower 2	M	25.04.07	2pm	1 hr	Recorded	Bulls
Grower 3	M	25.04.07	3pm	40 min	Recorded	Bulls
Grower 4	F	26.04.07	3pm	40 min	Recorded	Hastings
Grower 5	F	27.04.07	3pm	1 hr	Recorded	Palmerston North
Grower 6	M	16.05.07	2pm	½ hr	Recorded	Paraparaumu
Grower 7	F	16.05.07	3pm	½ hr	Recorded	Paraparaumu

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<sup>6</sup> The region where taewa are cultivated by the grower.