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He Whenua Whakatipu: a draft sustainable development framework for Ngai Tahu landholders

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Introduction

This paper outlines a draft sustainable development framework for Ngai Tahu landholders. The notion of sustainable development, by its very nature, is problematic. This is because there are so many criteria by which the development or growth of an entity through time can be assessed. For example there are multiple perspectives from various academic disciplines to be taken into account, as well as those embedded within traditional values and knowledge at a flax-roots level. This paper attempts to take account of this complexity through the development of a sustainable development planning process, which attempts to formulate courses of action that are well-informed by specialists from various academic disciplines, as well as by knowledge from within flax-roots Maori communities.

Initially this paper provides a literature review regarding current Maori sustainable landuse research within Aotearoa, in the attempt to encapsulate the 'complexity' of the issue at hand. Although this body of research provides important insights regarding the sustainable development of Maori land, it has a number of limitations, which are critically highlighted within this paper. From this literature review the sustainable development planning processes is developed. Further a conceptual sustainable land development model is offered, which provides a 'yardstick' from which sustainable landuse can be monitored. This model however must be considered a work in progress open to continuous and ongoing revision.

The overall purpose of this sustainable development framework is threefold. First it is a basis from which Maori landholders, including private, corporate and communal, can plan the development of their whenua. Second it is a basis from which landholders can derive, maintain and enhance cultural benefits from their whenua, from social, economic and environmental perspectives. Third, it is a foundation from which a monitoring framework can be developed to assess the performance of land management practices across a range of indices, including; social, economic, ecological and cultural criteria.

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Literature review – sustainable Maori farming

As yet there is no consensus on how sustainable Maori development of land resources should be defined or measured (Clough 2002, p.1). A number of approaches toward Maori sustainable development have been established (Loomis 1999). These approaches have mostly been based theoretically within western academic disciplines (Loomis 1999). Two common approaches have been identified in this literature review:

- The resource economics approach
- The planning and development approach

The resource economics approach interprets sustainable development as an ideal that is reached theoretically when adequate property rights are established over resources (Maughan and Kingi 1997; N.Z.I.E.R 2002). Conversely the planning and development approaches to sustainable development, are more pragmatic than theoretical. These approaches seek to identify and overcome constraints to the defined goals or intensions of Maori whanau and communities. Sustainability is not a fixed theoretical notion but something which is continually sought after through appropriate decision-making processes, which are informed by Maori values.

1.1 The basic axioms underlying the resource economics approach

Mainstream economic approaches to Maori land development suggest that achieving sustainability is primarily a matter of ensuring well-defined property rights (Maughan and Kingi 1997; Clough 2002; N.Z.I.E.R 2002). This is based on the theory of 'the tragedy of the commons,' in which poorly defined property rights lead to the excessive exploitation of a resource, above natural regeneration rates (Clough 2002, p.7). For example without property rights existing over *common property resources*, no incentive exists for one user of that resource to limit their exploitation, because there is no guarantee that another user will limit their exploitation.

Conversely however, poorly defined property rights also can lead to underexploitation (Clough 2002). For example in areas where capital investment is required to make use of a resource, such as with oil and gas fields, investors will not supply necessary development capital if it is suspected that extraction may be delayed or prevented through contention over ownership.

However resource owners will have an interest in ensuring the on-going appropriate utilization of a resource, if it can be guaranteed that their asset is not open to exploitation by others. In other words the owner of a resource with well-defined property rights 'has a powerful incentive to use that resource efficiently because a decline in the value of that resource is a personal loss' (Tietenberg 1992, p. 47). Also in a market economy adequate property rights provide a means of obtaining capital to more efficiently exploit a resource. This is because transferable property rights provide collateral for financial loans.

The most efficient property right structure has four main characteristics (Tietenberg 1992, p.45-47)

- *Universality* All resources are privately owned, and all entitlements completely specified.
- Exclusivity All benefits and costs as a result of owning and using the resources should accrue to the owner, and only the owner, either directly or indirectly by sale to others.
- *Transferability* All property rights should be transferable from one owner to another in a voluntary exchange.
- *Enforceability* Property rights should be transferable from one owner to another in voluntary exchange.

However the efficient transfer of exclusive rights over resources, from one individual to another, requires a well functioning market economy, and some sort of state apparatus, such as a legal system, to ensure that rights are enforceable and that resources are not involuntarily seized or encroached upon.

Once property rights are enforced the market economy can function in a manner that ensures, 'self-interested parties make choices that are efficient from the point of view of society as a whole' (Tietenberg 1992, p. 49). For example resource consumers will seek to purchase commodities in the market place at the lowest possible price, whilst resource owners will seek to sell their products at the highest possible price to maximise their surpluses. Competing producers will seek to place their commodities on the market at lower prices than competitors to ensure that consumers will choose their products over their competitors. This competitiveness brings about increases in production efficiency ensuring that the cost of production falls, which in turn increases surpluses. Continual increases in production efficiency, ensures that resources are used in a manner that minimizes waste.

For the resource economist unsustainable practices arise either when inadequate property rights exist, or when the market does not adequately take into account certain production costs on the environment. These costs are referred to as *externalities* (Tietenberg 1992, p. 52). It is the goal of the resource economists to uncover ways in which these *externalities* can enter into the market. For example the atmosphere is a *public good* that can be exploited by polluters because it is not privately owned. The Greenhouse effect is a good example of this whereby polluters can release carbon dioxide into the atmosphere, causing externalities associated with greenhouse warming and not have to pay for this cost. Carbon credit trading is scheme that has been developed by resource economists to deal with this situation.

1.1.1 Ideal property rights on Maori land and the consequences for economic development

Maori land refers to land that is recording on the Maori Land Court registrar. Land on this register exists in a tenure system derived from both traditional Maori concepts of ownership and British law (Clough 2002, p. 9). Maori land is considered, in general, under-developed in comparison to most land held under land titles derived from British common law. This under-developed status, according to mainstream economic theorists, may be attributed primarily to the Maori tenure system and the property rights associated with that tenure (Maughan and Kingi 1997; Clough 2002)

Property rights over Maori land may be considered, according to the economic ideal, as poorly defined (Maughan and Kingi 1997; Clough 2002). However some property right dimensions considered by resource economists as important have been established under British common law, these include;

- Exclusivity of ownership to a particular, whanau, hapu or iwi
- The enforceability of that right through the legal and military apparatus of the State.

Despite the security of ownership being established, communal tenure arrangements lead to a number of important property-right dimensions being excluded. First the ownership of Maori land is difficult to transfer. Difficulties regarding land sale, may be attributed to consensus decision-making processes, in which sale approval is dependent on a wide range of individuals establishing a common course of action. An agreed consensus is difficult to obtain.

In terms of the resource economists model the lack of transferability has a negative outcome for Maori land holders. This is because Maori land cannot be used as collateral to obtain capital from financial institutions (Munn, Loveridge et al. 1994). Munn (1994, p. 4) and Maughan (1997, p. 23) point out the need of financial institutions to possess absolute clarity regarding who is responsible for paying back loans, under what conditions, and when. Due to a shortage in development capital land land cannot move to its most economically production use. For example land in sheep and beef production may not be able to move to a more profitable use such as dairy.

Another property right dimension difficult to secure on Maori land is the exclusivity of access to the resource (Maughan and Kingi 1997). Decisions regarding which members of a tribal or familial body that collectively own a piece of land, are actually permitted to make use of that land are difficult, as one individual or group may gain privileges at the expense of other members. This insecurity regarding access rights often leads to Maori land simply being leased at current market rentals. This provides a monetary return to land shareholders enabling costs of land management, such as rates, to be met.

The ideal property right dimensions and whether they are secured for Maori land owners is outlined in table one below:

Property right dimension	Status on Maori land		
Universality	Not secured		
Exclusivity	Secured to a group but not to an		
	individual		
Transferability	Not secured		
Enforceability	Secured through the State apparatus		

Table one: The status of property rights on Maori land

In light of these difficulties associated with property rights, it is usually suggested by resource economists that decision-making regarding land management be transferred into a decision-making sphere separated out of tribal and familial relations (Clough

2002, p. 11). A corporate decision-making model is usually adopted in which land titles are grouped, and land management responsibilities delegated to a committee or board of directors (Vallance 2003, p. 50). This enables business activities to be separated out of the political activities of a tribe or whanau. The tribe or whanau therefore become shareholders in a company governed by a board of directors.

It is assumed that this process will lead to the most effective management of resources, through increasing the efficiency of decision-making (Clough 2002, p. 11). In effect decision-making is turned over to specialist control. In this regard the ideal Maori resource management scenario may be compared to the modern government and state-owned-enterprise relationship.

However the property right ideal of transferability is not achieved through this change in decision-making structure. Consequently development capital is still difficult to obtain for Maori land holders. However Wedderburn, Pikia et al. (2004) outline that finance is possible 'with strong governance and the ability to demonstrate to lending institutes a well developed strategic plan and the capacity to deliver (Cottrell 2003).' In other words Maori do possess the ability to access development capital, however good business infrastructure needs to be put in place.

1.1.2 The Maori property right structure and the market economy

Maughan and Kingi (1997) interpret much of the land alienation experienced by Maori through colonization as resulting from the imposition of one form of property rights over another. In other words the imposition of the European property rights over the Maori customary rights.

Both the Maori system of property rights, and the European, had commonalities with the ideal property right dimensions outlined by resource economists. However the Maori system placed greater emphasis on communal ownership and the non-alienation of land due to its important role in identity (Maughan and Kingi 1997, p. 4). Conversely the European system placed greater emphasis on individual ownership, and transferability (Maughan and Kingi 1997, p. 18). It also was also formalized into legal statute.

In terms of property right ideals the European system was found to be lacking in a couple of important areas(Maughan and Kingi 1997). The first is that the European system did not apply universal property rights over all resources. For example the sea was still a *public good*. This may be contrasted to Maori in which certain reefs and fishing areas belonged to certain whanau, hapu and iwi and only open for exploitation for limited seasons.

The European system was also found to be lacking in the area of *efficient scaling* (Maughan and Kingi 1997). In some cases exclusive property rights over certain resources established a monopoly leading to excessive profit taking. *Efficient scaling* refers to the establishment of mechanisms that limit profitability associated with an exclusive property right. For example if a person owns the only access to a water resource in an area they may charge excessively for access rights. Mechanisms to ensure that excessive profits are not taken in this situation would be necessary.

1.1.3 Traditional Maori property right structures

Despite the shortcomings of the European property rights system, Maugham and Kingi (1997, p. 18) suggest that it did provide an adequate basis for the establishment of institutions and practices necessary for economic efficiency. As stated by Maugham and Kingi (1997, p. 18).

'In particular, transferability of land, individualisation or clear identifiable title, and standardisation of rules are essential characteristics of the property rights system, which produces efficiency. It was therefore inevitable that it should be seen as the only system by the settlers, and probably by many Maori who saw the practical results of efficiency.'

This according to Maugham and Kingi is opposed to Maori property right structure, which could not permit the emergence of the institutions and practices necessary for efficiency.

However, this assertion is rather vague and denies the early economic history of Maori in which significant rates of return, and economic growth were achieved under customary property rights. Petrie (2002) clearly demonstrates that the early Maori economy was vibrant. In terms of agriculture Maori farms outperformed those of early settlers and provided more custom excise revenue to the colonial authorities than did Pakeha (Petrie 2002, p. 17).

Petrie asserts that it is a commonly held belief that the communal ownership structures and cultural practices existent in kin-based societies, like Maori, provided significant constraints to economic development (Petrie 2002). However Petrie throws this thesis into serious doubt by demonstrating the success of Maori when entering the market economy. This is outlined below:

It has often been considered that communal ownership, a lack of innovation, and an incapacity for deferred gratification were not only characteristic of kin-based societies like the New Zealand Maori, but constituted a barrier to economic growth and an impediment to extensive economic changes. However mid-nineteenth century Maori must throw this hypothesis into serious doubt. Maori proved to be highly entrepreneurial and innovative, husbanding and accumulating communal resources to maximise returns and expand their business interests.

Some may suggest that the early economic success of Maori was an anomaly due to exceptional circumstances (Petrie 2002, p. 19-20), which included:

- The large demand for agricultural commodities by European colonists in New Zealand and Australia
- The Maori use of slaves
- The high price of wheat in the 1850 and early 1860s

However Petrie mostly discounts this hypothesis. She suggests that the main cause behind the involution of the Maori economy was the reluctance of colonists after 1850 to engage in mutualistic relationships with Maori. This reluctance was based on cultural prejudice and ignorance backed by dubious evolutionary science. Prejudice further rationalized political and corporate corruption designed to alienate Maori from their resources.

The early economic success of Maori Munn and Loveridge (1994) attribute to two main reasons. The first is that excess land could be sold to provide development capital, whilst ample good quality land could be utilized by Maori to provide for development purposes and their own subsistence needs. This suggests that traditionally Maori land was transferable as long as it was excess to requirements and did not constitute taonga (sacred) status.

However the Maori notion of transferability was quite different from the colonist's notion of tradeable land existing in fee-simple ownership. For example although Ngai Tahu sold their land it was still considered that their rangatiratanga (chieftainship) would still remain over their resources including mahinga kai (food gathering areas) and other taonga. This right was considered ensured under the Treaty of Waitangi. Rakiihia Tau quoted in the Ngai Tahu Waitangi Tribunal Report (1991) communicates the understanding of the early chiefs; that their rangatiratanga (chieftainship) over their lands would be retained.

'Article three of the Treaty offered fellowship and brotherhood, a world where all men (sic) would be free, that we may be one people (kotahitanga) for these were the rights of all British citizens. Article two of the Treaty would give protection to the Maori and this was to include the protection of Maori property rights, i.e. Rangatiratanga over our mahinga kai that we desired to retain. Articles two and three were our treaty partner's commitment that would earn them to right to kawanatanga, the right to govern under article one of the Treaty.'

Consequently it may be considered that Maori were willing to sell the use rights of land, but that ultimately control of that land would remain with Maori and in particular the rights to Maori to still harvest mahinga kai. In effect new European settlers would come under the 'umbrella' of the chiefs and could have been considered to retain their own property right as guaranteed under Maori custom (outlined in detail below).

The second reason attributed for the early economic success outlined by Munn and Loveridge (1994) is that decisions about the occupation, use and development of Maori land were made based on Tikanga Maori. In other words Maori were economically successful in situations where they had their manawhenua or control over land in place, and where the management and occupation of that land occurred in a Maori political, economic and social context. In other words resources were controlled according to customary protocols.

The historical analysis of Petrie (2002) and Munn, Loveridge et al. (1994) contradict the assertions made by Maugham and Kingi (1997); that the Maori property right

structure could not theoretically produce the efficiency necessary to compete in the market economy. This contradiction suggests that either the Maori customary property right structure was closer to the economic ideals outlined by economists, than Maugham and Kingi determine, or the axioms theoretically underpinning the property right model of economists are incorrect. The other possibility is of course that the early economic success of Maori was an anomaly.

To comprehensively determine whether property right ideals are incorrect, or whether Maori customary rights were akin to the economist's ideal is beyond the scope of this paper. However it may be worthwhile exploring a comprehensive account outlining the right structure of Maori as outlined by Rammond Firth (1929).

1.1.4 Customary rights

Firth (1929) describes how the property rights existing in Maori society were complex. They could not be simplified into categories such as private or communal. Most commentators tend to simplify Maori property rights as being unsecured (Maughan and Kingi 1997; Clough 2002). However Firth demonstrates that historically, exclusive and secured property rights existed at multiple levels of social organization, including individual, whanau, hapu and iwi.

Property rights appear to have revolved around practicalities of use. For example certain cooking utensils may have been in the possessions of a particular individual, whilst a small waka may be owned by a whanau, but larger ocean-going waka would be the property of a hapu (Firth 1929, p. 350). Likewise a small inanga, or eel weir, would be owned by a particular whanau, at a particular location on a stream, whereas a very large eel weir, requiring many people to install and recover would be owned by a hapu (Firth 1929, p. 350).

In terms of agricultural gardens it is often thought that ownership was communal. However it was common for individuals and whanau to possess individual plots, which even a chief could not trespass upon (Firth 1929, p. 381). The rights to certain resources, by hapu and iwi, were secured through a combination of hereditary descent and rights to a place through continuous occupancy and use referred to generally as ahi ka roa (Maughan and Kingi 1997, p. 6). They were enforced through the protection afforded by hapu and iwi military strength. However they could be lost through conquest by neighbouring tribes.

Property rights over both resources, and the technologies required to exploit those resources, it may be concluded, were contextually dependent. Many factors determined property right, such as notions of tapu (taboos over the use of certain resources and objects) rahui (a prohibition over a resource to increase its fertility (Firth 1929, p. 259)), however one significant factor, was the relationship between efficient resource utilization and cooperative labour. It is clear in cases, such as offshore fishing, that the cooperative labour of a number of individuals, from different whanau, was required to ensure the efficient utilization of a resource.

However for everyday living whanau provided for many of their subsistence needs, making use of the resources over which they possessed a property right. Other needs

were met through cooperative labour at the hapu level. Nevertheless significant levels of economic independence could be found at the whanau level of social organization.

Overall however it is also clear that final property right existed with the chief of a tribe. Nevertheless for the chief to reallocate resources owned by an individual, whanau or hapu, required the support of the tribe (Firth 1929, p. 376). Acting in a manner that was unjust or reflected poorly on the benevolence of the chief would greatly undermine the chief's mana. This may be likened to the European property rights situation in which the Crown ultimately owns all land and may retake ownership (with compensation) if in the public interest. As stated by Firth (1929, p. 351)

'Property held by the whanau was ipso facto owned by its parent body the hapu, and ultimately by the tribe itself. But as a matter of actual practice each whanau was a self-contained body, and no other larger group would interfere, unless the matter was of wider concern.'

We may therefore conclude that the customary Maori property right structure was quite stable and gave definite rights of access to certain resources at different levels of social organization. However self-reliance existed primarily at the whanau level and at higher levels of social organization if collective labour was required for efficient utilization.

We may also conclude that the Maori customary property right structure was complex, but capable of producing economic efficiency. Exclusive property rights existed in practice and were applied over most resources at the time of European contact. The rights were also enforceable through well-known cultural protocols. Finally it appears that resources were transferable, however this was primarily related to inheritance, gifting and conquest. Nevertheless this changed with early European contact where land was transferred to obtain cash to operate in the market economy. However the right of tino rangatiratanga over mahinga kai had been guaranteed under the Treaty of Waitangi giving tribal authority the security of continued access to resources.

Overall it is clear that Maori had the property right structures in place to compete in the market economy. Labour could be cooperatively organized when the benefits of doing so would be realized by the whanau, hapu or iwi. Ample resources enabled Maori to develop good land and transfer the tenure of land if necessary.

1.1.5 A critique of ideal property rights from a Maori value

However a significant critique of the resource economics approach from a traditional Maori perspective is that it does not guarantee the economic independence of whanau, hapu or iwi. The economic ideal of private ownership and universal transferability of all resources must ultimately result in those dispossessed of resources through colonization being denied a guaranteed existence. Those disposed of resources become dependent upon the market economy as wage-labourers.

Manawhenua, or the expression of control and ownership of resources, provides the basis for economic wellbeing and constitutes an important value for Maori. This is made apparent in the statement by Rakiihia Tau quoted previously, in which Maori chiefs wished to have the right of access to resources guaranteed through the Treaty of Waitangi. The outcome of applying universal transferability to land is that significant portions of a society will cease to retain manawhenua and thereby become dependent upon resource owners for their survival.

It is clear that Maori were willing to transfer some resources to Pakeha, in the interests of establishing mutually beneficial relationships. However it may be concluded that Maori were willing to do this up to the point where economic independence and tino rangatiratanga was not threatened. Further Maori were not willing to concede their chieftainship over resources or those resources, such as land that contained taonga such as urupa (burial sites).

In this manner Maori could obtain development capital through their relationships with pakeha, but also maintain the manawhenua necessary to produce the goods and services necessary to meet subsistence needs, and manufacture commodities for sale in the market economy. Consequently it may be concluded that Maori interaction with the market economy was restricted to the extent that subsistence, self-determination, and areas of importance (taonga) were not threatened. This is outlined in diagram one below.

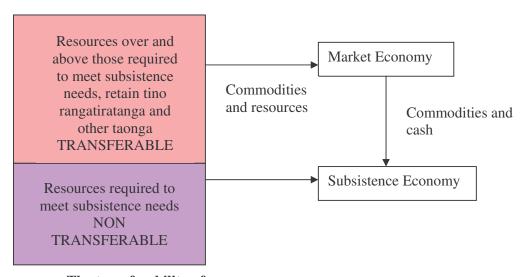


Diagram one – The transferability of resources

1.1.6 Comparing the loss of economic independence of Serfs in Europe to Maori colonization

Through the vigorous land-buying campaign, backed by political and corporate corruption that associated colonization, Maori economic independence was undermined (Te-Ahu 2004). Maori land was subsequently placed into the European property rights system. It therefore became universally transferable. It may be

contended that this same alienation from resources was experienced by European serfs in the transition from feudalism to capitalism in the centuries prior to New Zealand's colonization. It may be worthwhile understanding this historical process as it provides some interesting parallels to Maori, and in particular a change in the property right structure from customary to private.

According to Marx the social changes associated with the rise of capitalism were primarily an outcome of a change in the way in which economic goods were produced. Within feudal society serfs possessed the necessary means to produce their own goods and services. In other words serfs were largely guaranteed their economic autonomy and self-reliance (Marx 1867). This may be compared to the Maori situation in which subsistence needs were met within tribal and familial relations based in a kainga (place of dwelling).

However traditional access rights to resources under the feudal system, associated with communal property, were increasingly denied to European serfs between the sixteenth and nineteenth centuries. For example between 1801 and 1831 some of the last areas of common land in Britain, totalling 3,511,770 acres were legislated into the private ownership without compensation (Marx 1989, p. 84).

The removal of the access rights to property, which Marx refers to as the 'the forced expropriation from the soil' (Marx 1989, p. 85) made the proletariat vulnerable and in particular dependent on the ability to sell labour-power in the market economy for survival. A class structure was thus formed between property owners, that possessed the means of production, and the workers or proletariat for whom the ability to produce goods and services was denied.

Marx suggests that this history is interpreted by historians that emerge from elite sectors of society, as emancipation from serfdom (Marx 1867, p. 713). However this historical analysis Marx claims denies the fact that serfs were robbed of their means of production.

Hence, the historical movement which changes the producers into wage-workers, appears, on the one had, as their emancipation from serfdom and from the fetters of guilds, and this side alone exists for our bourgeois historians. But, on the other hand, these new freedmen became sellers of themselves only after they had been robbed of all their own means of production, and of all the guarantees of existence afforded by the old feudal arrangements, and the history of this, their expropriation, is written in the annals of mankind in letters of blood. (Marx, 197, Capital 713 – 16) p. 82

The transferral of the means of production from the serf to a property owning class coincided with European industrialization and the growing demand for factory wageworkers. The abundance of a property-less proletariat provided a continuous source of labour to satisfy this demand.

This same process was repeated in New Zealand whereby Maori were expropriated from their land (Te-Ahu 2004). This undermined their ability to meet their subsistence needs and their ability to raise development capital through the sale of excess resources. In turn the Maori economy was involuted.

What is clear from this analysis is that colonization introduced a form of individualistic capitalism, in the model of private land-ownership. This replaced a pre-existing customary property right system, which was more complex but equally effective in producing the efficiency necessary for Maori to compete successfully in the capitalist economy. However it also guaranteed a right to existence for those protected under the maru (cloak) of rangatiratanga.

What is clear is that the expropriation from the soil forced Maori into a dependency relationship. This enabled Maori to be disciplined into forms of labour that otherwise they would not have undertaken. Under the customary property right structure *manawhenua* ensured the independence of whanau, hapu and iwi. It was also well suited toward efficient production in a market economy, in that cooperative labour could be organized in situations where benefits to whanau, hapu and iwi were clear. This is obvious in the case of Maori agricultural production and value-added industry on an impressive scale in the 1850s. It would have been difficult to exploit labour under this system, apart from the acceptance of slavery within Maori society.

1.1.7 Economic independence and political independence

The loss of manawhenua, or the denial of access to resources, must also lead to a loss of political independence. This in particular is pointed out by Christopher Lasch (1991), who demonstrates that only when a citizen has access to the resources they need for existence, can they participate appropriately in a democracy. For example one would not state one's opinion in a political context if it could possibly lead to the loss of employment. This was also recognized by India's independence leader Ghandi, who stated that without economic freedom there could be no political freedom, self-governance or self-rule (Shiva 1999). Consequently Ghandi's swadeshi system of land tenure was centred primarily on meeting subsistence needs at the village level.

Ghandi understood colonization as not only the physical presence of an invader but also the economic control of resources (Shiva 1999). Therefore, despite the absence of a colonizer their presence may still be there in terms of economic control. Ghandi saw economic sovereignty as the key for peace, as individuals, communities and nations can only be secure if their existence or manawhenua is guaranteed (Shiva 1999). It provides the only basis from which different peoples can interact in genuine and mutualistic ways. The Maori value of manawhenua complements Ghandi's notion of swadeshi.

1.1.8 Deculturation through commodification

Historically the loss of economic independence led to a separation between working life and Maori cultural life. Without having access to the means of production Maori were forced into a dependency relationship with the European market economy. All former cultural practices embedded within a specifically Maori economic life, such as mahinga kai (techniques of wild food gathering), and craft technology (whare and waka building) became activities outside of the work place and therefore practiced less.

In terms of rural Maori this situation was exacerbated after the 1950s, when the green revolution forced Maori from their kainga and into the cities looking for factory work (Butterworth 1967). This greatly undermined tribal and familial relations centred within the kainga. In turn, the cultural practices associated with those relations could not be practiced to the same extent.

The move to urban areas, and the uptake of factory labour, also constituted a change in the way technology was related to. Within factory labour one becomes an instrument of technology. This constitutes a radical departure from traditional relationships with technology, whereby an apparatus remains the instrument of a craft person. Marx (1989, p. 103) illustrates this in the following statement:

'In handcrafts and manufacture, the workman makes use of the tool, in the factory, the machine makes use of him. There the movements of the instrument of labour proceed from him, here it is the movements of the machine that he must follow. In manufacture the workmen are parts of a living mechanism. In the factory we have a lifeless mechanism independent of the workman who becomes its mere living appendage.' P.103

Through this process the individual is forced into performing narrow and repetitive labour, predefined according to the requirements of the machine (Braverman 1999). However even more radically, as outlined by Marx (Marx 1989), the worker within the industrial workshop becomes a commodity like all others in the production process. For example a factory manager may talk about the costs of an employee along with other costs such as electricity to power a plant. This constitutes the objectification of human beings as commodities or as resources in monetary value.

The reduction in the activities of Maori from craft based labour embedded within tribal and familial relations, to menial, repetitive, impersonal and uncreative tasks, embedded within the industrial work place, it may be argued, amounts to deculturation. This is because the traditional tasks associated with utilizing resources embedded within the relations of whanau, hapu and iwi, that required creative skill on the part of the worker, ceased to exist and were replaced by less diverse or creative tasks, for the majority of the population. Further this labour has been commodified. Latouche identifies this as a characteristic of modern western societies below:

'In traditional society the economic sphere is an integral part of the cultural ensemble...... Modern society, by inventing "economics" (i.e. by creating an 'autonomous sphere') for the production an distribution and consumption of material wealth, a sphere in which it is legitimate and necessary to allocate means as efficiently as possible – has reduced culture to the narrower preoccupations 'ministry of culture' possessed by many civilized nation.' (Latouche 1996, p. 35)

However Latouche may be criticized in that there is not clear definition of what culture is. For example economics in western society may simply be a reflection of what modern culture values. Nevertheless it is clear that modern technology, individual land tenure, and the practice of commodification, emerged in western culture, and through colonization were imposed upon Maori.

Historically Maori did wish to make use of many of the benefits that modern technology and the market economy could bring to their own societies, however Maori wished to interact on their own terms, by retaining their manawhenua, or customary property right over their resources. This ensured that economic life remained embedded within tikanga Maori.

The pure application and implementation of the resource economics approach to Maori sustainable development, namely the universal transferability of all resources, removes the rights to guaranteed existence under the customary value of manawhenua. It therefore must lead to deculturation in circumstances where indigenous people have lost access to their resources and have therefore become subject to the forces of the market economy and modern technology. It is not possible for the majority of Maori to interact with these systems on their own terms due to the loss of manawhenua.

1.1.9 Acculturation through education

Dependence on the sale of labour in the market forced Maori into pursuing the uptake of skills necessary to gain employment. For example Ngai Tahu Maori undertook sheep shearing in Te Waipounamu (Mikaere 1988). However Maori were poorly educated in the Pakeha world and therefore undertook the most menial labour tasks. This also made Maori vulnerable to changes in economic fortune such as the 1930s great depression (Te-Ahu 2004). Government policy in the 1890s until the 1950s was directed toward training Maori into lower skilled labouring and trade occupations (Mikaere 2000).

We may therefore conclude that the loss of manawhenua not only forced Maori into undertaking menial labour in the market economy, but also provided a strong impetus toward insuring that Maori spent their formal education within European colonial society. Consequently not only was economic life largely separated out of whanau, hapu and iwi, but so too was formal education. This had the effect of acculturation as Maori were educated out of the Maori world. For example it was common for Maori to be beaten for speaking their language at school.

1.1.10 Conclusions

Various writers have suggested that the Maori property rights system was akin to communism (Firth 1929, p. 359). However Firth firmly dismisses this notion suggesting that Maori property rights existed in practice at many levels of social organization, not only communal. The communist ideal is to Firth a modern utopia that bears little relationship to the traditional economy of Maori.

However it may be concluded that Maori traditional property rights were at odds with individualistic capitalism. Nevertheless they did permit successful competition in the capitalist economy. We may therefore speculate that Maori customary property rights provided for a form of Maori capitalism in which the values of manawhenua and manamoana provided for guaranteed existence.

The resource economists approach to sustainable development does not provide this guarantee. It is consequently inadequate for ensuring that tikanga Maori is practiced and maintained. It would also seem to contradict most notions of sustainability, as survival or continued existence is a central theme. The resource economist's model could well be strengthened in this regard through limiting transferability at the point

where the guaranteed existence of people is threatened, and in particular cultural independence in terms of economic and political self determination. However overall the model provides a number of important notions in the sustainable management of natural resources.

1.2 The planning approach to sustainable Maori development

The planning and development approaches to sustainable Maori development, are pragmatic rather theoretical. These approaches seek to identify and overcome constraints to the defined goals or intensions of Maori whanau and communities. Three main stages in the planning process have been recognized by Harmsworth (2002, p. 4) as necessary to provide Maori with a sustainable development framework:

- *Identifying and understanding Maori values*
- Determining the iwi or hapu vision, the mission, and establishing strategic goals and objectives, the strategic planning process
- Developing resource inventories and planning information systems to support strategic planning and to assess performance

Within this framework Maori values are considered to provide a holistic basis from which social, economic and environmental systems can be incorporated into decision-making (Harmsworth 2002). A visioning process enables values to be incorporated into tangible 'picture' of where whanau, hapu and iwi would like to see themselves in the future. The vision provides a future reference point to which whanau, hapu or iwi can aim toward. Aims and objectives provide a set of milestones and actions required to overcome constraints and achieve the vision identified.

1.2.1 Identifying Maori values

Maori values are the basis of the planning approach to sustainable development. However it is necessary to rationalize the use of Maori values as a basis for sustainability. If a close look is taken of what Maori values identified by various authors actually are, a much clearer picture develops as to why Maori values can provide an adequate basis for sustainable development planning. These values and definitions are outlined in table two below and explored in more detail in the subsections below.

Harmsworth	N.Z.I.E.R	(Munn,	Iremonger	Meaning
(2002, p. 4)	(2003, p. 44)	Loveridge et		
_	_	al. 1994)		
Iwitanga	Iwitanga			Uniqueness of iwi
Whakapapa				Structured lineage to all things
Tino rangatiratanga		Rangatiratanga	Rangatiratanga	Acts of self determination
Manawhenua				Legitimacy to control resources
Arohatanga				Care, love, respect
Awhinatanga				Give assistance to others
Whanaungatanga	Whanaungatanga	Whanaungatanga		Bonds of kinship - togetherness
Whakakotahitanga	Whakakotahitanga	Kotahitanga		Respect for individuals – desire for consensus
Koha, whakakoha		Manaakittanga		Acts of giving

Tau utuutu	Tau utuutu			Reciprocity
Whakapono				Faith and trust
Wehi				Reverence
Turangawaewae		Turangawaewae		Place of standing and security
Kaitiakitanga				Guardianship
Kokiri				Going forward
Te Aoturoa		Te Aoturoa	Te Aoturoa	Interdependence with the natural environment
Taonga tuku iho	Taonga tuku iho	Taonga tuku iho		Holding protected treasures passed on – including natural resources
Wairuatanga		Wairuatanga	Wairuatanga	The spiritual dimension
			Te Ao Maori	

Table two: Maori values identified as important by different authors for sustainability

1.2.1.1 Passing on resources - taonga tuku iho

The potential for Maori values can be made clear first of all in the ethic of taonga tuku iho, or passing on treasures from one generation to another. This notion is similar to the United Nations, Agenda 21 (UNDP 1992) concept of sustainability, which is defined as 'to provide for today's generations without compromising the resources and security of future generations.' The similarities exist in the desire for intergenerational equity by ensuring that resources existing today are maintained or enhanced for future generations. However the value of taonga tuku iho encompasses far more than Agenda 21 by referring to all things tangible or intangible that are of value.

The idea of passing on treasures from one generation to another is also embraced in the following whakatauaki or proverb; 'Mo tatou, a mo ka uri a muri ae nei' (for us and our children after us) (T.T.R 2004, p. 40). This includes ensuring that the values of manawhenua and tino-rantatiratanga, or political and economic self-determination, are embodied from one generation to the next, so that the resources necessary for guaranteed existence in Maori communities can be accessed.

1.2.1.2 Political decision-making processes and whakakotahitanga

Western literature exploring sustainable development issues often reaches the conclusion that decision-making processes are of utmost importance in addressing issues of sustainability. The basic theory behind this conclusion is solutions to environmental, social and economic problems, that threaten the continued existence of the life supporting systems, are complex and multi-faceted. Consequently no one perspective or idea, held by specialists, laymen or community groups, can solve the problems that are facing the continued existence of human beings. To understand the complexity it is necessary for 'stakeholders' in problem situations to generate a collective understanding that encompasses a diversity of perspectives. Whakakotahitanga covers this notion by both valuing many perspectives and valuing consensus.

In terms of western academic literature there have been many attempts to develop decision-making forums that attempt to deal with complexity. Gunderson Holling and Light (1995) provide an ecological metaphor to describe the learning processes that stakeholders involved in resource management issues go through. They demonstrate how stakeholders go through learning processes, which require the breaking down of old ways of thinking and the rebuilding of new ways of thinking. Thus stakeholders move from a diversity of perspectives through to some sort of unity. However this learning process is in effect endless as new information may disrupt the way in which a current problem situation is understood.

In the diagram below Gunderson Holling and Light (1995, p. 22) demonstrate an adaptive four phase cycle within ecosystems. It demonstrates how ecosystems go through periods of conservation (K) or stability. This may be compared to a decision-making forum in which all perspectives and ideas have been consolidated to form some sort of consensus for action. This is followed by a period of disruption (Ω), caused by new information, which requires a current way of thinking to be questioned. A chaotic period follows, before reorganization (r.), whereby a lot of new information requires consideration. This is followed by reorganization (α), or the development of new myths and visions for a new pathway forward. A new stable state (K) is created through the consolidation of perspectives.

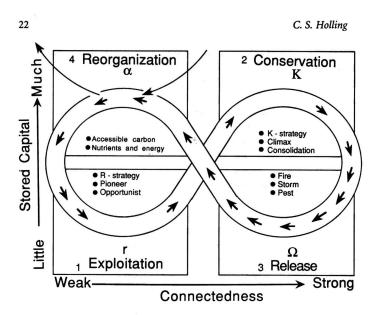


Diagram two: the four phase cycle of ecosystems

Applying this to environmental decision making forums Gunderson, Holling and Light (1995, p. 502) have identified, in table three below, different groups as representing different phases of the above adaptive four phase cycle.

 ${\tt TAble~12.1}$ Attributes of Groups Dominant at Different Phases of Adaptive, Four Phase Cycle

Attribute	Phase of Adaptive Cycle						
	r–K 1–2	K-Ω 2-3	Ω-α 3-4	α-r 4-1	A-? 4-?		
Group type	Bureaucracy	Activists	Catalysts	Decision makers strategist	Evolutionary		
Activity focus	Self-serving	Insurgence	Unlearning	New learning cooperation	Deep transformation cooperation		
Strategy	"Do as before but more"	"Weathering the storm"	"Unlearning yesterday"	"Inventing tomorrow"			
Response to changes	No change	Conflict	Shedding old behaviors	Reframing strategies	Invention		
Time horizon	Time of office (linear time)	Present (discontinuous)	Time out (multiple scales)	Near future (multiple scales)	Distant future		
Space horizon	Building and holding bounds	Destruction of old bounds	Suspension of bounds	Creating new bounds			
Nature of truth and reality	Constructed	Competing explanations	Discovering what works	Reconfiguring myths	New myths (visionary)		

Table 3: stakeholder groups representing different phases in the ecological cycle

Within academic circles the complexity of sustainability issues has also led to the development of multidisciplinary and transdisciplinary research teams that attempt to uncover and encapsulate all the social, economic and ecological variables operating within the environment. Methodologies such as Soft Systems were developed in the 1980s to provide step-by-step processes through which understanding of complex situations could be developed, such as in multidisciplinary research teams (Checkland 1990). The first step in soft-systems is to involve all the stakeholders in a particular problem situation to build a *rich picture* that identifies all of the variables involved in a particular issue (Checkland 1990). It then divides the rich picture into certain themes from which solutions to the problems can be identified. This methodology rests on the systems theory assumption that problems are emergent properties generated by numerous causes acting simultaneously.

However Soft Systems have proven to be inadequate for dealing with power situations, in which certain groups, individuals or cultures assume more power in decision-making processes than others. This skews the way in which reality or problem situations are understood. Emancipatory development methodologies, such as *Critical Heuristics* seek to overcome these types of situations by providing a forum in which all voices can be heard (Ulrich 1994).

Critical Heuristics is based on the *systems idea*, which suggests that the world is infinitely complex (Ulrich 1994). Dealing with problems in the world is therefore difficult because a selection has to occur between phenomena considered relevant to decision-making and phenomena considered irrelevant. The decision of what to include and what not to include is referred to as a system *boundary*.

Ulrich (1994) puts his theory into practice in real-life situations by facilitating participants into defining what they consider relevant and irrelevant in regard to a problem through a series of *boundary questions*. This provides an opportunity for

individuals or groups of participants to define their *systems boundaries*, or their different interpretations of a problem.

Other emancipatory methodologies include *Critical Systems Thinking*, which attempts to uncover and expose the value-laden assumptions underlying different problem interpretations (Flood and Romm 1996). This methodology has developed out of a combination of cybernetics and critical theory - in particular the work of Jurgen Habermas (Flood and Romm 1996). However increasing influence is now emerging from post-modern philosophers such as Foucault. Critical systems approaches are post-structuralist in that they understand power to exist primarily in discourse. However there is a structuralist dimension in terms of the organization of decision-making forums in the attempt to facilitate power-free situations.

Systems methodologies for dealing with knowledge systems, in the Australian agriculture context have been developed by Ison (2000), in his 2^{nd} Order Rural Research and Development. Ison (2000) takes a social constructivist position uncovering and making explicit the many interpretations of the agricultural environment held by participants. An action researcher is employed to actively facilitate change through engaging participants in a group hermeneutic learning process. The overarching aim is to develop a 'bigger picture' for participants to understand the complexity of the problems they face.

In the New Zealand land management context, researchers such as Will Allen (2001) have been developing action research approaches for sustainable landuse planning. These methodologies emerge as continual iterative and collaborative learning processes between researchers and research participants to arrive at a convergence of understanding of a particular problem situation. This involves continual learning processes that move 'from existing assumptions, values and mental models, through to new knowledge assumptions and guiding values.' (Allen 2001, p. 13). Allen makes it clear that these learning processes can be difficult, as they upset values beliefs and habits.

It may be concluded that Maori value of whakakotahitanga embraces the same emancipatory values found behind the methods outlined above; all of which attempt to value of differences, but also seek unity or a greater understanding of a particular situation. However it is clear that whakakotahitanga is different in that it is not based on abstract reasoning but is embedded within tradition and placed into everyday practice. The theoretical approaches developed can be criticized for often being too abstract, and difficult to implement in real-life situations. Traditional methods may be considered of high value because they have emerged through a long period of trial and error. This however does not mean that they should not be open to criticism in circumstances where marginalization of community members occurs.

An example of a traditional Maori method of providing a forum for sustainable development and planning is demonstrated below. This example emerged out of action research approach with a whanau trust that this researcher engaged with (Reid 2003). A number of important values and actions were made explicit by participants to guide decision-making.

1.Kotahitanga

- The desire to reach consensus in any group situation or hui when deciding on principles and courses of action.
- A healthy regard and respect for differences and a keenness to work through differences to consensus
- That those too whakama to speak in open situations have their thoughts conveyed by a trusted whanau member back into the consensus decision-making process
- 2. Manaakitanga
- That the well being of *whanau* members, both now and in the future, are placed before oneself when making a decision.
- 3. Tino Rangatiratanga
- That the autonomy, individuality and self determination (economic and social) of each whanau member is respected
- That self determination through economic and social independence is maintained by HPP Trust through the following practices
 - Avoiding debt
 - Using trusted specialists when expertise is required
 - Being careful to ensure when engaging in contractual arrangements that the intentions of HPP Trust are being fully honoured
- 4. Te rakau korero
- To use a 'talking stick' to 'gather' the korero and ensure all members of HPP Trust have their say in the manner they wish to say it.
- 5. Karakia
- To begin and end hui with karakia
- 6. Hungatautoko / Awhi
- To encourage and pick-up whanau that have fallen into a state of apathy and despondency

Table four: Traditional protocols adopted for a whanau decision-making forum

It can be clearly seen that this whanau wished to value a diversity of perspectives, but also wished to facilitate consensus. Techniques employed for this are the use of the traditional te rakau korero or talking stick, which permits all those present to speak in their own time and their own pace. Further karakia is undertaken at the beginning and end of meetings to generate humbleness, and reverence (wehi) to something much larger and greater than those present in the hui.

However what is not mentioned in this model, remaining implicit, is the role of kaumatua and kuia (elders) (Reid 2002). Kaumatua and Kuia that are universally trusted and respected by all participants can provide the basis for excellent forums in which the unjust expression of power is kept to a minimum. This provides a safe and open environment for participants to express their ideas and values. Criticism is often directed toward elders in Maori communities that fail to fulfil this function (Reid 2002).

1.2.1.1.1 Planning processes a subset of whakakotahitanga

We may consider a planning process as a subset of the Maori value of whakakotahitanga. Before appropriate visions, aims and objectives can be established appropriate decision-making forums need to be in place to ensure that the complexity surrounding sustainable development issues can be taken into account as well as the avoidance of unjust expressions of power.

1.2.1.1.2 Information systems

Harmsworth outlines how information systems such as GIS can be very important in assisting Maori decision-making (Harmsworth 1997). These 'objective' models permit the recording and organization of information. In this research objective, He Whenua Whakatipu, a desire for adequate information systems has been made clear, by research participants. This is also supported by other researchers working in the area of Maori land development (Wedderburn, Pikia et al. 2004). In particular knowledge of what type of crops can grow in different areas, given changes in biogeography, have been expressed.

However it must also be noted information systems, such aw GIS are 'hard systems,' and therefore need to be continuously modified for the changes in end user needs. Consequently its design and on-going modifications should also be determined within an appropriate decision-making forum. Likewise continual updates of information systems through monitoring also help better understand the environment at hand.

1.2.1.3 Environmental values

Within the Maori value framework exist a number of values that form an ethic for the way in which Maori understand and tiaki (care for) nature. These fall into a number of categories and are overall embedded within the mythical cosmology and whakapapa of Maori.

In terms of cosmology near all things are as a result of the union between heaven and earth, or Ranginui and Papatuanuku. Historically Papatuanuku and Ranginui emerged from the ocean at a time of darkness or Po (Tikao 1990, p.24). At the same time other celestial beings or maku emerged from the ocean, and formed various unions, one of which gave rise to the sun and moon (Tikao 1990, p. 24). However most of the beings, both tangible and intangible, that we experience today, are a result of the earth's and the sky's embrace. We have the mythical figure of Maui to thank for the separation of Ranginui and Papatuanuku, which allowed the lights of the celestial beings to full our world, and the creatures existing between sky and earth to flourish.

All beings are interrelated through whakapapa or genealogy. Consequently all things are in essence genealogically related. Metaphorically these relationships may be understood as a branching tree. Whakapapa is further explained below:

'Whakapapa explains the origins and creation of all things. It connects people to their ancestors, the land, and natural resources. It binds tangata whenua to the mountains, foothills, plains, rivers, coasts and other landscapes, linking the health of the people with the health of the environment.' (T.T.R 2004, p. 31)

The depth of the Maori environmental ethic is far too comprehensive to be given any justice here. A text however is provided by Patterson on the subject (Patterson 2000). The central characteristic of the Maori environmental ethic revolves around whakapapa and the familial bonds that are created with all beings, such as forests, sea creatures and the earth. Among the values that contribute to the Maori environmental ethic include:

• Kaitiakitanga – this involves the roles and responsibilities that come from being in a web of familial relations. It places a responsibility on Maori to look

- after the beings within this family, whilst also feeling looked after, or provided for and protected by them.
- Tu Aoturoa –It is necessary to acknowledge mutualistic and interdependent relationships that exist between beings. However it is also important to acknowledge the conflicts and tensions that exist.
- Turangawaewae This for Maori is their place of standing. It is strongly
 related to identity and revolves around one's home or kainga where one has
 come from.

Local approaches to dealing with sustainability issues

One attribute of turangawaewae, or belonging to and having a history in a place, is that it enables a unique understanding of an environment. This is reflected in customary property rights, which provide protocols for the way in which natural resources are engaged with.

Today environmental management through traditional property right structures are being acknowledged for their effectiveness in managing marine resources in the South West Pacific. In the recent post-colonial period marine resources have been placed under centralized fishing regulations in an attempt to control the use of marine resources. These systems have however failed to protect local marine environments (Young 2004). Traditional property right structures are being re-instituted to ensure local enforceability and local sustainable management of resources (Young 2004).

- Wehi this is based on reverence for creation. It gives rise to a cautiousness or fear of acting in ways that may result in negative consequences.
- Whakakaha te Mauri (T.T.R 2004, p. 32)— this based on the concept of Mauri, or the 'life force' that pervades all things. Mauri is a temporal concept represented in the unfolding or growth of phenomena. It stems from the force that underlies the creative life potential of things, referred to as wairua or spirit. Whakakaha te Mauri is maintaining the vitality and health of beings.

When the mauri of a being is degraded, its vitality, health, pristine and unpolluted nature is disturbed. For example the clarity of a river is damaged through siltation from erosion on farmland. The life-giving ability of the river is affected in terms of its ability to provide an abundance of flora and fauna. In such a situation the Whakakaha te Mauri of the river has been diminished.

1.2.1.4 Values emerging from social relations

Practicing the values of aroha (love), whanaungatanga (the bonds of kinship between people), manaakitanga (unqualified acts of gifting), tau ututu (reciprocity) and awhinatanga (acts of assistance) may be considered the foundation of tikanga Maori. These values when put into practice provide the 'glue' for whanau, hapu and iwi, and the basis from which matauranga Maori (Maori knowledge) can be passed down from one generation to the next. They assist in providing the conditions of security and identity for Maori to mature and develop under.

The notion of passing on a legacy expressed in the phrase taonga tuku iho and in whakatauaki or proverb; 'Mo tatou, a mo ka uri a muri ae nei' (for us and our children after us'), suggests that Maori consider the values of aroha, whanaungatanga, manaakitanga, tau utuutu to exist across generations. Consequently these values provide the glue for whanau, hapu and iwi, not only in present generations but those passed and those to come. This is of course embodied in the overarching knowledge of whakapapa.

1.2.2 Constraints to Maori and development and mechanism designed to overcome them

Following the identification of Maori values, within the planning and development process, and the incorporation of those values into a vision, is the formulation of goals and objectives. However there are often constraints to the goals being achieved. Outlined below are the constraints to Maori development goals that have been identified by various researchers;

- Communal tenure arrangements that inhibit the raising of loan finance due to the inability of Maori to secure creditors (Peters 2001; Wedderburn, Pikia et al. 2004, p. 4).
- The lack of separation between business activities from cultural practices (N.Z.I.E.R 2002; Wedderburn, Pikia et al. 2004).
- The small size of Maori landholdings making the scales necessary for commercial production unviable (Wedderburn, Pikia et al. 2004, p.4)
- Shortage of technical expertise to undertake planning (Peters 2001; Wedderburn, Pikia et al. 2004)
- Shortage of skilled staff to employ in local communities (Wedderburn, Pikia et al. 2004)
- The isolation of many rural Maori communities giving rise to transportation difficulties (Peters 2001).
- Shortage of service industry (Peters 2001)

Methods to overcome these constraints have also been identified by researchers and can be found through the following mechanisms:

- The creation of corporate decision-making structures that permit business activities to be managed separate from the politics of tribal and familial relations (Peters 2001; Clough 2002; Wedderburn, Pikia et al. 2004).
- Overcoming the lack of finance capital through developing high value niche products for select markets (e.g. specific organic crops) that have relatively low capital start-up requirements (Peters 2001; Wedderburn, Pikia et al. 2004, p. 4)
- Increasing scale either through networking or the amalgamation land units of Maori land (Wedderburn, Pikia et al. 2004, p.4)

A critique of the constraints provided by the above researchers is that they interpret the primary constraint to Maori sustainable development to exist in the arena of economics; namely the ability to compete in the market economy. This looses sight of the potential of working with Maori communities for the development of nonmarket economies, as identified in the international development literature, and outlined by authors such as Friedman (1992).

2. A proposed framework for Maori sustainable development

An important conclusion from this paper is that manawhenua is essential to provide for Maori self-determination, or tino rangatiratanga. Without manawhenua a culture cannot be sustained as something lived economically. Instead economic life takes place in the market economy whilst cultural life, or Maori life is lived after work and on the weekends. This gives rise to the structures that Latouche (1996) talks about in terms of the creation of ministries of culture, in which culture is reduced to a pass-time outside of work.

We can see this clear separation in the Te Puna Kokiri, Cultural Heritage and Economic Development Report (2002). Within the report two definitions of culture are given, first one by Barker (2002) which suggest that culture is 'the set of tastes, or preferences, understandings or beliefs and moral or ethical codes of conduct which may be shared in common by a number of individuals.' The second definition is based on Earne's (1997) definition which identifies a culture as when a group of people 'share common characteristics, particular myths, histories, values, beliefs, ideologies and rituals.' The report therefore concludes that cultural activities can 'therefore be seen to include more than art, music and literature: they extend more widely to the patterns of behaviour that characterise a group of people.'

Despite this acknowledgement the report fundamentally identifies Maori culture as fulfilling three basic functions:

- Meeting mental health needs associated with loss of cultural identity (for example use in prison programmes)
- Developing creative skills and self-esteem for the creation of an income
- Providing commercial opportunities through the exploitation of Maori art forms. For example kapahaka groups performing to tourists, or selling Maori carvings.

Consequently the emphasis in the report is the use of Maori culture to make individuals functional within society and most importantly so that they may participate positively in the market economy.

This demonstrates a distinct lack of awareness that within cultural values and rituals exists a definite and unique form of Maori economy. Firth (1929) clearly demonstrates that a definite and unique form of economy existed with Maori prior to colonization. Petrie (2002) demonstrates that through European contact this economy initially grew and thrived. It is clear that a subsistence Maori economy based on manaakitanga, tau utuutu and whanaungatanga continues to exist embedded within social relations. This type of non-economy can be found primarily in Maori rural areas where subsistence farming still continues, and there is access to mahinga kai or wild food gathering places.

The international development literature in particular places an emphasis on the development of what it terms subsistent, moral, or non-market economies (Chambers, Arnold et al. 1989; Friedman 1992). The non-market economy operates in a manner, which is embedded within political community (Friedman 1992). As outlined above

the customary access rights to resources are far more complex than that found within the market economy and contain moral obligations. International development often works on developing both market and subsistence economies simultaneously.

This is the same situation as the Maori non-market economy where values such as manawhenua, restrict transferability, and manaaki (unqualified acts of giving) determine medium of exchange. Non-market economies tend to be non-cash, consequently the commodification of people and resources is not present as in the market economy.

The split between non-market and market economies is illustrated in diagram below by Friedman (1992, p. 50):

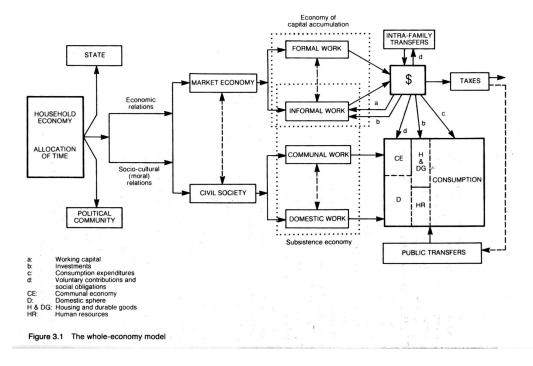


Diagram three: The market / non-market economy split

It may be considered that maintaining and generating a successful non-market economy is essential for Maori cultural sustainability. This is because a moral economy permits Maori values to be lived in economic life. It also contributes to the sustainability of whanau, hapu and iwi by decreasing reliance on the market economy and the State, thereby producing resilience to international economic recessions and political upheavals.

However the successful functioning of a Maori subsistence economy is dependent upon manawhenua or access to resources. Often Maori do not have access to resources. This provides a clear explanation as to why Maori political movements associated within self-determination are principally concerned with gaining access to the resources necessary to obtain economic sovereignty. However significant assets do exist in terms of Maori freehold land.

Of crucial importance to cultural sustainability is consequently the manner in which Maori economic development is pursued. A word of warning is provided by academics such as Said (1993) who clearly demonstrate how elites within indigenous societies tend to perpetuate the practices of their oppressors in the post colonial period. Rata (2000) in particular has demonstrated examples whereby Maori have established institutions and structures for competing in the market economy that bare little resemblance to traditional practices and lead to an unjust distribution of resources within tribal bodies.

However the difficult situation faced by tribal bodies in the modern context must be clearly understood. Due to the shortage of resources to provide tribes with economic and political self-determination, it is usual for tribe to separate out corporate governance to maximise rates of return for their tribal 'shareholders.' There is simply not enough resources to distribute wealth to a whanau level to provide for tino rangtiratanga.

However tensions must inevitably develop between corporate governance bodies and flax-roots Maori social organizational approaches The Maori corporate body may be seen from a traditional, and often 'flax-roots' point of view, to contribute to the acculturation of Maori into western cultural practices by valuing economic rates of return over and above Maori values.

However to accumulate resources it is necessary for a tribal corporate body to remain competitive in the market economy. It therefore must partake in the abstract commodification of people and things to ensure that the highest rates of return possible are supplied to its shareholders. From this corporate point of view they are providing the financial returns necessary for achieving Maori manawhenua or economic sovereignty, without which Maori cannot have tino-rangatiratanga or political sovereignty. This creates a problematic in that both positions in the debate may be seen to be defending and protecting ethnic identity and cultural tradition.

However these two bodies need not be viewed as mutually exclusive or in 'combat,' but may be engaged with consciously to provide a two-pronged approach to economic development. This may overcome the tensions between corporate and flax-roots. Diagram four below explains how development can occur in both the moral and market economies. The corporate interaction can provide capital for development in the community political economy, which can also provide commodities for the market economy itself. This type of model would seem to provide economic resilience as it is encouraging local self-reliance, whilst it is also engaging positively with the global market economy.

Overtime this type of model may work toward re-generating economic self-reliance at the whanau and hapu level. Local self-reliance would provide the basis for tinorangatiratanga (political self-determination) and manawhenua (control over resources), turangawaewae (a standing place), the embedding of economic relations back into tikanga Maori giving expression to values such as whanaungatanga, and manaaki. There is also a strong link between the local and the expression of environmental values in a place, such as the responsibility of kaitiakitanga.

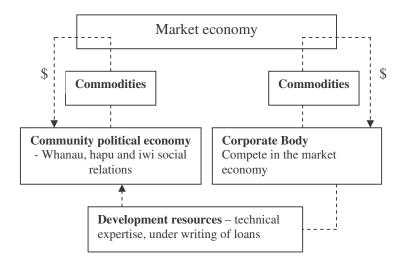


Diagram four: Development of the moral economy and competitiveness in the market economy

2.1 A proposed process for sustainable development for Ngai Tahu landholders

However the above theoretical model cannot be considered to provide a concetptual foundation for sustainable development on its own. The planning and development approach to sustainable Maori development also provides important insights into how Maori values can determine appropriate planning approaches for Maori landholders.

It has been outlined previously that the Maori value of whakakotahitanga, provides an adequate basis from which decision-making that values diversity and consensus can occur within a planning process. This enables the complexity of problem situations to be understood. Diagram five demonstrates the place of whakakotahitanga as the basis of a decision making process that enables Maori values such as taonga-tuku-iho, whakakaha mauri, kaitiakitanga, whanaungatanga to inform the decision-making processes giving rise to the appropriate vision, aims and objectives for Maori landholders.

However it is also important that theoretical knowledge that is relevant to the planning process, such as the resource economists approach, and the market and non-market economy distinction made in the above theoretical model, can enhance the quality of decision-making. Maori values, relevant theoretical models and appropriate information systems provide a basis from which realistic visioning and goal setting can occur. Further ongoing monitoring to determine whether or not the goals of the

landholders are being met provides the final contribution to good decision-making both at present and into the future.

This sustainable development framework is a process. It does not propose a set and final model of what Maori sustainable development should look like, but provides a basis from which different planning models could arise in different contexts, given cultural differences and local environments. Sustainability is therefore not a fixed notion but an ideal that is sought after. This overall process forms the sustainable development framework for landholders outlined in diagram five below:

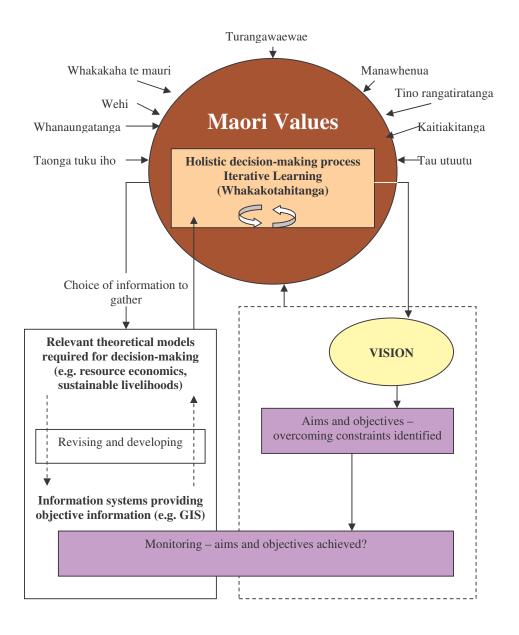


Diagram five: A process for sustainable land development

2.2 A conceptual model of sustainable development

To accompany the sustainable development process is a conceptual model of sustainable development demonstrated in table 5. The sustainable development development process may be considered positive, because it that seeks the ideal of sustainability. Conversely the conceptual model of sustainable development may be considered normative, because it is a 'yardstick' for determining the sustainability of particular landuse practices. The model is based on the critical discussions and literature outlined within this paper and the previous action research of this author.

However it should be considered that the sustainable development model is a work in progress, to be continually redefined through the sustainable development process. It is therefore open to a continual process of revision through participatory planning and research with whanau, hapu and iwi. The model identifies a number of Maori values, which collectively provide a basis for the sustainable development of Maori land holders. The values and reasoning behind their inclusion are outlined below:

- Whakakotahitanga enables all Maori values, theoretical models and information systems to enter into a decision-making or planning process. This provides a basis from which Maori landholders can make well-informed decisions about their future development pathways.
- Manawhenua without manawhenua, or adequate control over resources
 Maori landholders cannot meet their subsistence needs either through trading
 in the market economy or through meeting local subsistence needs.
 Manawhenua is required for political self-determination and the incorporation
 of Maori values into lived practice. Without manawhenua there can be no
 cultural sustainability.
- Tino-rangatiratanga or political self-determination is dependent upon manawhenua and is required for Maori to meet their unique aspirations
- Turangawaewae identification with a place or kainga. Identifying a place of
 origin is central to being Maori, and in particular determining roles and
 responsibilities for a particular place. For example acting as kaitiaki over a
 beach, estuary, river, lake or mountain to ensure that its health and well-being
 is maintained.
- Kaitiakitanga the act of nurturing and protecting taonga, or those things
 considered precious and important. This of course includes resources
 necessary for maintaining the manawhenua of current and future generations,
 as well as ensuring places and things of importance such as urupa (graveyards)
 are identified and maintained.
- Taonga tuku iho Ensuring that 'legacies,' or taonga are passed on from one generation to the next. Without this continuity inter-generational equity cannot exist.
- Whakakaha te mauri Ensuring that the health, vitality and well-being of people and natural systems are maintained such as, whenua (land) rivers and lakes. Without maintaining the life-generating capacity of these systems, human beings cannot continue to live.
- Te Aoturoa acknowledgement of the interdependence of all things. Without understanding the interdependent nature of all things the capacity to acknowledge the impacts of one's actions on other systems is undermined

• Whanaungatanga – Under whanaungatanga (the bonds of kinship between people) are included the values of aroha (love), whanaungatanga (the bonds of kinship between people), manaakitanga (unqualified acts of gifting), tau ututu (reciprocity) and awhinatanga (acts of assistance). Whanaungatanga provides the appropriate conditions for individuals to grow and develop under, psychologically and spiritually. Further it is the foundation of Maori economy.

Finally potential indicators and abstract measures are provided, which offer a means of determining whether Maori landholders are able to incorporate Maori values into their practices. However these measures are preliminary and open to change through the research process.

Sustainable Development Conceptual Model

Values		Systems applied to		Whakaaro (ideas /concepts)	Indicators	Abstract Measures
Whaka- kotahitanga	Whakakotahitanga - is a process by which Maori values, concepts and ideas can make their way into sustainable planning processes	Political - decision making		Valuing diverse perspectives and concensus	Growing knowledge and awareness of a problem situation or opportunity	Evidence of increasing variables being taken into account within decision-making forums
	Manawhenua - control over resources necessary to provide for economic well-being	Political Economy	Market Economy	Competitiveness in market economy	Increasing ability to compete sucessfully in the market economy	Efficiency Profitability
			Non Market Economy	Generation of subsistence needs from access and control over local resources	Increasing self- reliance and ability to meet subsistence needs through local resources	Percentage of needs met through use of on- farm resources and interrelated systems
	Tino rangatiratanga		Social	The ability to bring a vision into actuality	Choices and opportunities	Number of life choices
	Whanaungatanga		333.4.	Bonds of kinship and warmth	The openness	Unqualified acts of
	(including manaakitanga, tau utuutu and awhinatanga)			provide the basis for tikanga Maori	sharing and gifting between	gifting?? Social engagements??

				whanaunga	(To be determined throu research)
Turangawaewae		Kainga	Identity - relationships to place	Growing sense of identity or re-identification with place	To be determined through research
Kaitiakitanga		Takiwa (tribal boundary)	To nurture and protect local taonga	Ability to effect change over local Resources (reliant on manawhenua)	To be determined through research
			Local knowledge		
Taonga tuku iho			Passing on things treasured	Health and vitality of the following: Water	
				Nga Wai: Wai ora	Cultural Health
				Waitoi	Stream Index MAF (Tipa and Tierney)
				Waihapua Waipuna	
	ALL SYSTEMS			Repo raupo Achaeological sites	
				Ahi ka roa	
				Wahi tapu	Tapu sites
Whakakaha te mauri			Maintaining the health and	Wahi taonga Wahi pakanga	identified and protected?
Wilakakalia te iliauri			vitality of beings	Urupa Tuaha	number

	l	
	Umu	
	Tuhituhi Nehera	
	Hurahi	
	Wahi kohatu	
	Wahi mahi kohatu	
	<u>Rongomatane</u>	
	Soil health	Soil tests
		Worm counts
		Soil structure etc.
	Animal Health	Behavioural
		Characteristics
		Physiological condition
	Plant Health	Nutrient content
	<u>Haumiatiketike</u>	
	Wild animal heal	h Behaviour
	Kai awa	Diversity / quantity
	Taonga species	
	Mahinga Kai	
	Wild plant health	Diversity / quantity
	Rongoa	
	Taonga species	

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