

# THE CONTROL, ENVIRONMENTAL SUSTAINABILITY AND INFORMATION MANAGEMENT OF MAORI LAND IN NEW ZEALAND

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## ABSTRACT

An increase in Maori land claims and the subsequent settlement of a number of land confiscation grievances have prompted calls for change to the land management, cadastral and legal regimes in New Zealand. There is little expert agreement as to how such reforms should take, but environmental planners and Maori leaders have conceded the need for an overhaul of current land information management practices. Such reforms must aspire to being legally workable, culturally appropriate and environmentally sustainable.

Most land in New Zealand is subject to recent legislation (post-1984) which acknowledges concern for Maori cultural values and ancestral rights and environmental sustainability. The existence of this legislation and growing Maori involvement in formulating public policy for the management of land and environmental resources mean that Maori concepts of land management and sustainability are receiving increasing attention and are likely to influence the shape of future cadastral reforms for Maori lands.

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## HISTORICAL CONTEXT

The Maori are a Polynesian people who are thought to have arrived in Aotearoa (now New Zealand) about 1,000 years ago. Maori folklore speaks of an ancestral homeland named Hawaiki, which may be a reference to the group of islands that make up Tahiti, the Cooks and the Marquesas. Most Maori trace their ancestry, and often take their tribal name, from one of "the seven canoes of the great fleet" which brought them to New Zealand (Belich, 1996).

The Maori brought with them the staple root vegetables kumara and taro, and the gardening skills of their Polynesian homeland. They also imported the Polynesian dog whose fin- proved useful in the colder climate of New Zealand. The early Polynesian settlers found a land with very few mammals but which was rich in aquatic life and birds, including many flightless species such as the giant moa (which the Maori hunted to extinction) and the kiwi, which has survived to become the national symbol of New Zealand.

Maoritanga is the name given to the Maori way of life and view of the world. Maori culture is a growing and changing part of life in New Zealand. According to Maoritanga, Maori ancestors and all living things are descended from the gods, who are embodied in specific mountains, rivers and lakes. This is why links with the land are so important in the Maori culture. Maori mythology maintains that one of their ancestors, Maui, was responsible for slowing the sun to make the days longer, taming fire and raising New Zealand out of the sea. Figure 1 shows the traditional territories of Maori tribes.

Europeans started to explore New Zealand around 1740, and by the end of the eighteenth century, whalers, sealers and traders began to arrive on a regular basis. When Captain James Cook began mapping New Zealand for the Crown in 1769, he found diversity and relative prosperity among the Maori. By the second quarter of the nineteenth century, European settlers (mainly from the British Isles) were arriving in New Zealand in large numbers. Their settlement was initially a peaceful event, and they introduced modern tools, enabling the Maori to build bigger meeting houses and canoes. The European migrants also brought with them guns (helping turn Maori skirmishes into wars), epidemics and the notion of private land (Rice, 1992).

In 1839, after the Maori had petitioned Queen Victoria about the damage being done to their land and culture by uncontrolled land speculators and gold miners, the British Consul Captain William Hobson sailed for New Zealand under instructions to enter into negotiations with Maori chiefs and alleviate the rising tension between the Maori and European immigrant communities (who now comprised nearly one tenth of the New Zealand population). On 6 February 1840, several Maori chiefs signed the Treaty of Waitangi, giving the English Crown the right to purchase Maori lands in return for "undisturbed possession" of existing Maori lands, forests and fisheries. The treaty also conferred on the Maori "all the rights and privileges of British subjects". The Treaty of Waitangi marked a turning point in the history of New Zealand.

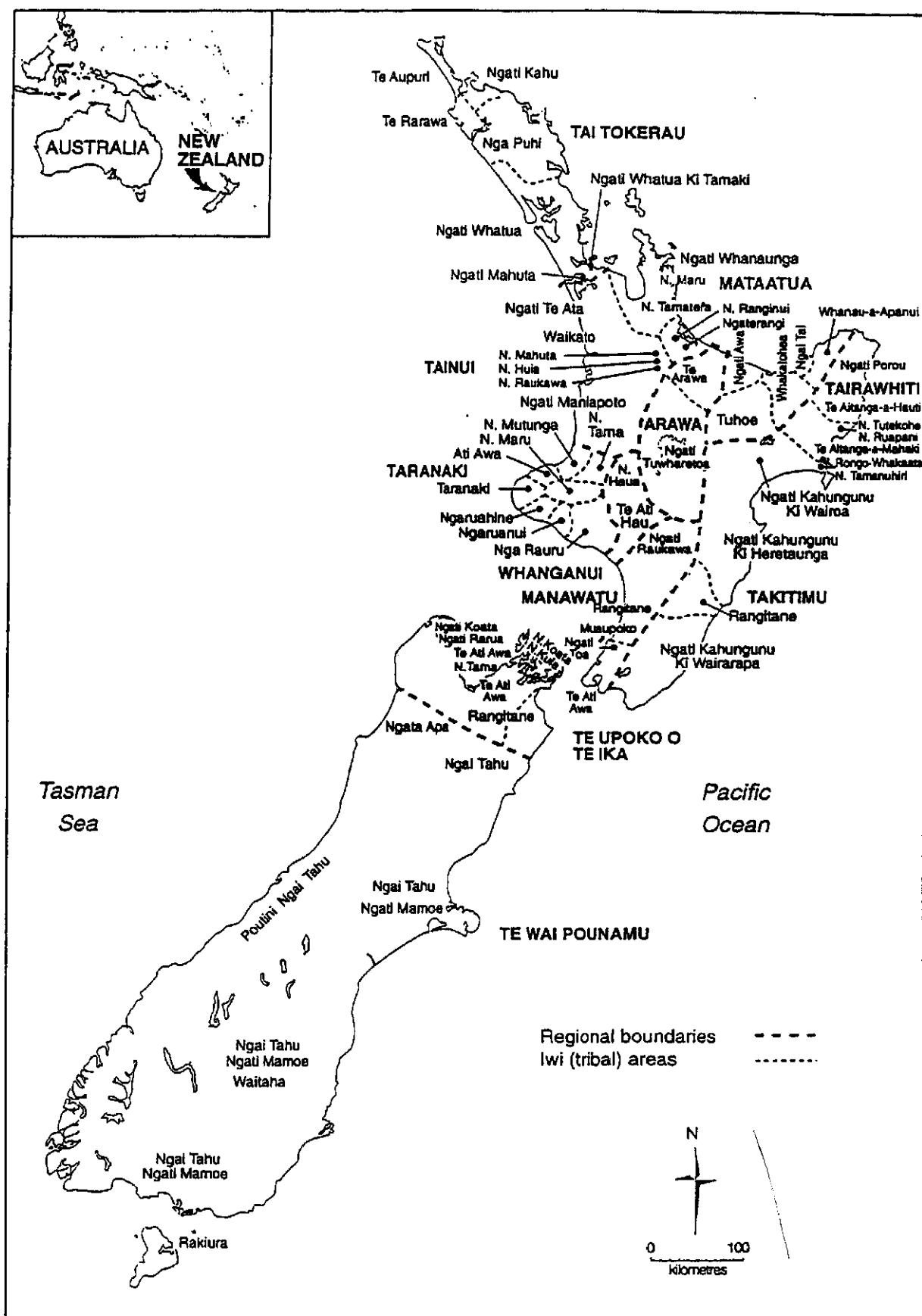


FIGURE 1: Maori tribes

The Treaty of Waitangi consists of three Articles. In Article 1, the Maori "cede to Her Majesty the Queen of England absolutely and without reservation all the rights and powers of Sovereignty". Article 2, however, addresses the more substantial issue of land rights, which is the hallmark of the present Maori rights movement (Crengle, 1993). According to the English text

"Her Majesty the Queen of England confirms and guarantees to the Chiefs and Tribes of New Zealand and to the respective families and individuals thereof the full exclusive and undisturbed possession of their Lands and Estates Forests Fisheries and other properties which they may collectively or individually possess so long as it is their wish and desire to retain the same in their possession; but the Chiefs of the United Tribes and the individual Chiefs yield to Her Majesty the exclusive right of Preemption over such lands as the proprietors thereof may be disposed to alienate at such prices *as may be agreed upon* between the respective Proprietors and persons appointed by Her Majesty to treat with them in that behalf"

A modern English translation of the original Maori text, of the same Article, offers a more Maori focus:

"The Queen of England agrees to protect the chiefs, the subtribes and all the people of New Zealand in the unqualified exercise<sup>1</sup> of their chieftainship over their lands, villages and all their treasures<sup>2</sup>. But on the other hand the Chiefs of the Confederation and all the Chiefs will sell land to the Queen at a price agreed to by the person owning it and by the person buying it (the latter being) appointed by the Queen as her purchase agent."

1. "Unqualified exercise of the chieftainship - would emphasise to a chief the Queen's intention to give them complete control according to their customs."
2. "Treasures" - as submissions to the Waitangi Tribunal concerning the Maori language have made clear, this refers to all dimensions of the estate (material and non-material), heirlooms, sacred places, ancestral lore and genealogies of a tribal group.

However, despite the egalitarian spirit of the treaty, its principles were frequently ignored by the settlers and colonial authorities alike. Dissatisfaction over the control of land in the North Island led subsequently to war, with the result that much Maori land was confiscated. The Maori were especially dissatisfied because the impoverished colonial government could not afford to buy much land, and the land it did buy was resold to Europeans at a substantial profit (Williams, 1983). British immigrants were also angered by government land profits and by the scarcity of land.

Race relations soon deteriorated beyond repair (Rice, 1992). The settler population and the demand for land had increased and many Maori, fearing for their future, became reluctant to sell. In the Waikato and Taranaki regions, where there was an

extreme shortage of land, land sales were fiercely opposed by a growing Maori sovereignty movement. The resulting inter-racial tension led to the Land Wars between 1844 and 1872 (Rice, 1992). During the course of the Land Wars, the Native Land Act of 1862 apparently contravened the spirit of the Treaty of Waitangi by legalising private land transactions between settler and Maori.

Maori land grievances and the subsequent wars may have been compounded by the slow development of a land registration system in Britain itself. As Larsson (1991) observed:

"Land registration as such had great difficulty winning acceptance in England. Rights in land were commonly transferred by private conveyance ... Acts of Parliament failed completely to achieve their purpose. In 40 years fewer than 1,000 titles were registered ... The government showed no interest in encouraging registration, and the English solicitors were hardly enthusiastic advocates for registration."

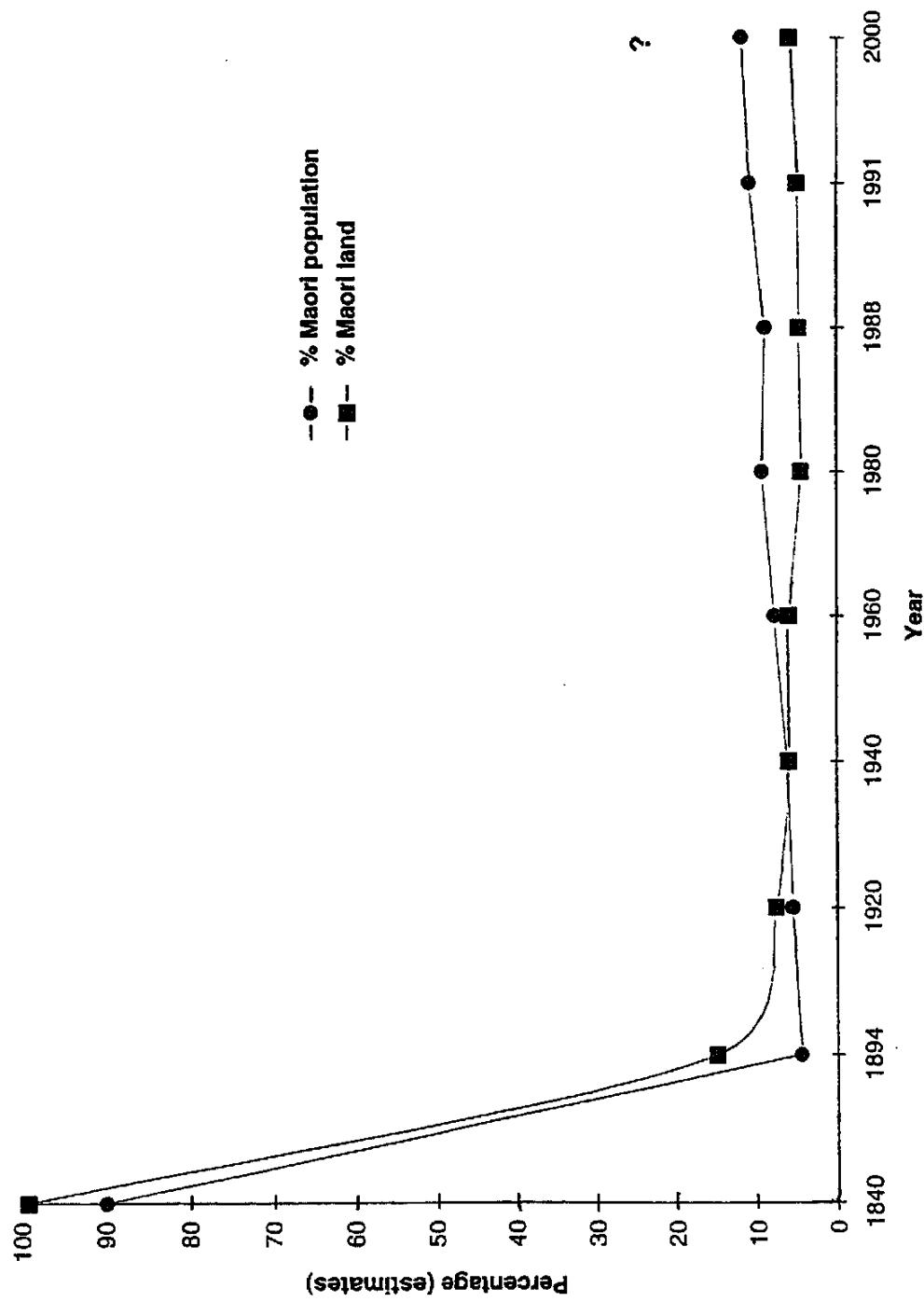
Figure 2, compiled from Winmill and Morton (1993), shows the rapid decline in Maori percentage population and land share during the period 1840 to 1894.

### MAORI LAND JURISDICTION

The Maori Representation Act of 1876 created four Maori parliamentary seats and brought the Maori community into the political system of the self-governing colony of New Zealand. The Act *was* the first important legislation passed to mitigate the damage to Maori-European relations caused by the Maori land wars that had just ended. A century later, another legal step towards reconciliation between Maori and Europeans was taken, when the Waitangi Tribunal was set up by the New Zealand Government (in 1975) to examine Maori land grievances, and adjudicate on the letter and spirit of the Treaty of Waitangi.

Until 1984 the Waitangi Tribunal was only authorised to consider grievance claims tendered since 1975. However, in 1985 a new law was passed to allow the submission of claims resulting from any grievances going back as long ago as 1840 when the treaty was signed. Any Maori can make a claim to the Waitangi Tribunal if they feel the government has, at any time since 1840, breached the letter or purport of the Treaty of Waitangi.

The Waitangi Tribunal consists of sixteen experts and a Chairperson; roughly half its members are Maori. The members are appointed by the Governor General on the recommendations of the Ministers for Maori Affairs and Justice. Each claim examined by the Tribunal must fulfil requirements laid out in section 6 of the Treaty of Waitangi Act of 1975. Claimants are required to be Maori and may claim either as an individual or as a group of individuals (usually a tribe or a clan), stating how they have been prejudicially affected by any Crown action since 6 February 1840.



**FIGURE 2:** Maori population and land share

At the Tribunal hearings, members review the available evidence and then produce a report of the Tribunal findings and recommendations on government action to settle the grievance. However, the Waitangi Tribunal recommendations are only legally binding where state owned assets are concerned. The latter comprise land occupied by State Owned Enterprises, Crown Forests, and some railway, military and educational institutions.

Other important legal establishments concerned with Maori land issues include the Maori Land and Maori Appellate Courts, which are today governed by the Te Ture Whenua Maori Act of 1993. The Maori Appellate Court has appellate jurisdiction over the Maori Land Court, and may state a case for the judgment of the High Court on any point of law arising in proceedings before it. The decision of the High Court, which is subject to an appeal to the Court of Appeal, is binding on the Maori Land Court and the Maori Appellate Court. The functions of the Maori Land Court are stated as the administration of Maori land through maintaining the records of title and ownership information and providing land information to Crown Agencies.

The Maori Land Court was established by the Maori Land Act of 1862 to investigate customary Maori land titles and to issue certificates of title in favour of "Tribe, Community or Individuals". The Maori Land Court Act of 1894 empowered the Court to determine the ownership of a Maori land title. Maori lands have tended to undergo frequent and multiple partitions *as a result* of successive inheritances in typically large families. The Maori Land Act of 1862 marked a watershed in Maori land history, as most customary Maori land was gradually transferred into freehold titles or ceded to the Crown.

Apart from its legal mandate, a Maori Land Court often performs a cultural role in settling land disputes within the Maori community. According to the Maori Land Court Judge Dune (1979):

"It could be said that the main function of the Maori Land Court is not to find for one side or other, but to find social solutions for the problems that come before it: to settle differences of opinion so that co-owners might co-exist with a measure of harmony ... to reconcile family groups."

## THE CADASTRAL JIGSAW

Maori lands tend to be the most obscure pieces in the cadastral jigsaw of New Zealand, because most partitions and cadastral adjustments remain unsurveyed for years. Maori land issues therefore pose a considerable cadastral challenge. There have been numerous attempts to address the problem in recent decades, but progress has been slow. Cultural factors have often been cited to explain the failure to resolve the persistent legal and technical hurdles confronting Maori Land issues. As a New Zealand Judge has observed, "the European land tenure system, in its present form, is a veritable engine of destruction of Maori land holdings" (Winmill and Morton, 1993).

The problems facing Maori land tenure reform in New Zealand are summarised below:

- When the Treaty of Waitangi was signed in 1840, Maori tribes owned nearly 99% of the land in New Zealand; today it is nearer 5% (less than half their population share) (Winn ill and Morton, 1993).
- Historically, Maori vendors may not have appreciated the finality of a land transfer deed between their chiefs and the Crown (Benwell, 1993).
- Nearly 1.2 million hectares of Maori land (approximately 5% of the land in New Zealand) was confiscated in the second half of the nineteenth century from tribes "believed to have been in rebellion" (Asher and Naulls, 1987). Much of this confiscated land has since found its way into private titles which are not covered by modern compensation schemes.
- Those Maori who have traditionally held a communal ownership of their land resources are predominantly tribal.
- Despite a popular willingness in New Zealand to address Maori land grievances, the present cadastral system is European and favours individual land titles. Although most urban Maori recognise this principle, their rural counterparts are seldom enthusiastic about individual land titles.
- Maori land holdings are difficult to demarcate because of multiple successions and counterclaims. Also, a partition sanctioned by the Maori Land Court fails to acquire full cadastral status because of the unwillingness of beneficiaries to survey and register the titles.

Historically, Maori society did not recognise individual ownership and Maori land tenure was held communally (a system known as *papatupu*). *Whanau* (families) and *hapu* (clans) were allocated land according to their need by tribal chiefs (Winmill and Morton, 1993). Maori society recognised several forms of customary land tenure, occasioned by *take taunaha* (discovery), *take raupatu* (conquest), *take whenua tuku* (gift) and *take ohaki* (inheritance) (Kawharu, 1977).

Today, Maori land covers approximately 5% of New Zealand and falls into one of three broad categories:

1. freehold land
2. reserved land
3. customary land

Before the signing of the Treaty of Waitangi in 1840, all land in New Zealand was regarded as customary land. However, it is doubtful that any significant amount of Maori land has escaped the Maori Land Court Act of 1894, designed to transfer all communal Maori holdings into freehold titles, or cede them to the Crown. Maori reserved and vested lands were holdings administered by the Crown in trust for the Maori population. Some of these lands were subsequently sold by the state, usually for settlement development. The towns of Rotorua and Te Kuiti (in the central North Island) were built on Maori reserved lands (Asher and Naulls, 1987).

It is thought that Maori reserved lands comprise less than 0.5% of all land in New Zealand (about 9% of all Maori land in the country). Maori freehold land makes up nearly 90% of all Maori land in New Zealand. There is a distinction between general freehold land (which also includes private Maori land owners), and Maori freehold land, which comprises the remnants of customary Maori lands partitioned by the Math Land Court.

The complex cadastral situation of Maori land has evoked much discussion in legal, surveying and environmental planning circles in New Zealand. Non-Maori experts have often argued that progress can be made by a programme of title improvement, whereby all of the unsurveyed Maori land partitioned is surveyed. However, for cultural and economic reasons the Maori population is reluctant to accept freehold ownership, especially in rural areas. Maori culture is steeped in communal values and the prospect of freehold ownership is impractical where multiple ownerships and successions would involve fragmenting a fast shrinking acreage held in small and isolated parcels. Furthermore, secure tenure may encourage a wave of borrowing on the part of Maori owners, which may lead to further alienation of Maori land where loan repayments are not met (Winmill and Morton, 1993).

## ENVIRONMENTAL GOVERNANCE AND MAORI PARTICIPATION

Maori values and concerns in relation to land and environmental resource management are now being increasingly formally acknowledged by New Zealand law, and Maori people are becoming increasingly involved (empowered) in the process of environmental governance. Recent environmental legislation has incorporated Maori terms within the body of legislation; *kaitiaki, maataitai, mana whenua, tangata whenua* and *tikanga maori* are all terms given definition and included within the Resource Management Act of 1991, which is probably the most far-reaching legislation in terms of private land (Crengle, 1993). This Act applies to all natural and physical resources, including land, water and coastal areas up to a 12 mile offshore limit. It is the main statute that relates to the development and implementation of public policy in relation to natural resources. Its purpose is "to promote the sustainable management of natural and physical resources", where sustainable management is defined as "the use, development, and protection of natural and physical resources in a way that sustains their potential to meet the reasonably foreseeable needs of future generations and safeguards the life-supporting capacity of air, water, soil, and ecosystems." (Section 5, Resource Management Act, 1991)

There is other legislation relating to specific resources, including minerals, indigenous forest and commercial fisheries. However, the Resource Management Act integrates the use, development and protection of land, air, water, soil, ecosystems and indigenous vegetation through public policy as developed and implemented by structures of local, regional and central government. Virtually all new development or land use change comes within the jurisdiction of this Act.

The Resource Management Act also articulates a number of principles that must be incorporated as part of resource management policy and practice. Among the

principles articulated by the Act is that all persons exercising functions under its jurisdiction "shall recognise and provide for ... the relationship of Maori and their culture and traditions with their ancestral lands, water resources, *waahi tapu* (sacred sites) and other *taonga* (treasures)". They must have particular regard to the exercise of *kaitiakitanga* (guardianship) and they must "take into account the principles of the Treaty of Waitangi".

The concept of *kaitiakitanga* is one which perhaps most explicitly reflects and incorporates the relationship between Maori land management and environmental sustainability. It is defined in the Resource Management Act as "the exercise of guardianship and, in relation to a resource, includes the ethic of stewardship based on the nature of the resource itself. *Kaitiaki* or guardians are people with rights to ancestral land who are recognised by others of the land-owning group as having special knowledge in relation to the management of resources within that land. They are expected to protect the integrity of those resources in trust for future generations. They are regarded as having particular knowledge about and concern for the sustainable management of those resources which outsiders cannot be expected to have.

The Conservation Act of 1987 is another Act which combines concern for Maori principles of resource management with the conservation of natural and physical resources. The Act applies to extensive tracts of public land administered by central government for conservation purposes. The main purpose of the Conservation Act is "to promote the conservation of New Zealand's natural and historic resources". Section 4 of the Act, however, states that: "This Act shall so be interpreted and administered as to give effect to the principles of the Treaty of Waitangi." This provision means that the government is obliged to include meaningfully all Maori who can establish rights of ancestral association with particular areas of land in the management of those lands. Although most conservation land is mountainous and unsuitable for development, many parts of it are of historic, cultural and spiritual significance to Maori and currently subject to land claims.

Thus it is recognised within New Zealand (sometimes with reservation by the international community) that Maori have strong associations with ancestral lands and that these associations may include values of an historic and spiritual nature. Inclusion of the term *kaitiaki* (guardians) in the Resource Management Act is an explicit recognition of a Maori cultural role that is relevant and important in the promotion of sustainable management of natural and physical resources. This statutory development has been accompanied by a Maori cultural revival that has made Maori increasingly prepared to be actively involved in the preparation of public policy for land and environmental resources. Maori have been prepared to challenge the courts when they believe that their cultural values and stewardship rights in relation to ancestral land have been overridden or ignored. Examples exist where Maori have claimed that a particular form or area of landscape (e.g. coastal dunes) is important for cultural reasons (e.g. burial) and should not be developed. Historically, such claims have often been overridden for reasons of cost, efficiency or other utilitarian value. More recently, Maori cultural and spiritual values have been increasingly accepted by the courts as relevant criteria in the management of land and natural resources.

It cannot be assumed, however, that all Maori will necessarily view environmental sustainability as a key consideration in management of ancestral land. Among Maori there is a divergence of views about protection versus development, and many Maori feel that the development of land resources to the fullest extent possible is necessary for the social and economic welfare of their people (Horsley 1989). However, for those who retain their ancestral ties, the basis on which these ties are recognised involves a genealogical claim. This claim is based on relationships with the past, which makes individuals particularly aware of their ties to past and future generations, and of their own place in a strand of connectedness beyond their own individual lifetime. Thus, even where Maori attitudes to the management of ancestral lands are pro-development, the development is for the welfare of the clan, the *hapu*, for both present and future generations.

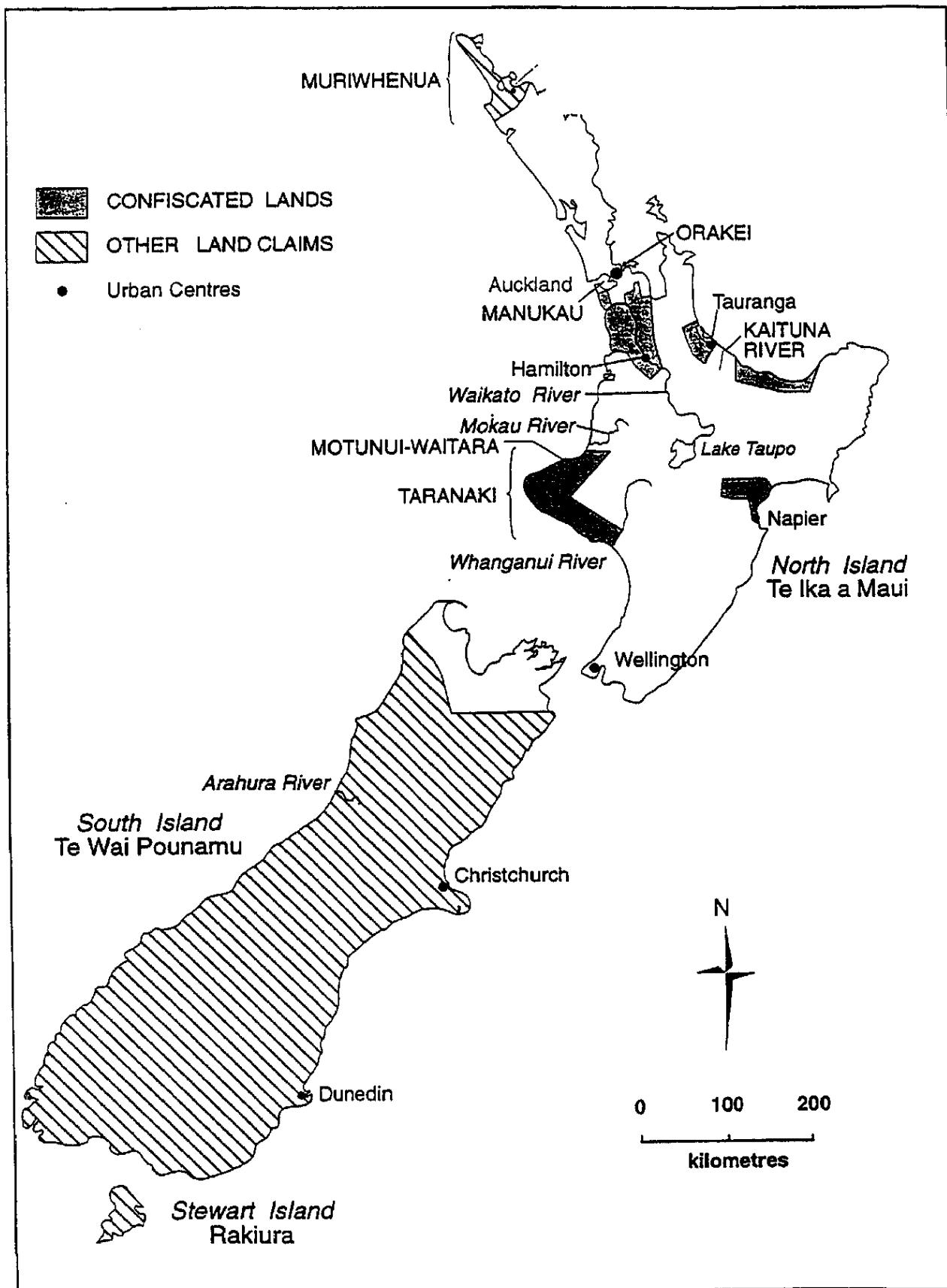
## LAND INFORMATION MANAGEMENT

There is currently mounting interest in New Zealand in the use of information technology (IT) in indexing Maori land records and demarcating Maori land assets. Government sources indicate that the Maori Land Court has already embarked on an information system strategy aimed at digitally replicating Court transactions and compiling a digital list of owners (*New Zealand Official Yearbook 1996*). It is well recognised in legal and Maori circles that Maori land records are very vulnerable to physical damage and loss. The complexity of multiple ownership, succession and cross-claims (which characterise Maori land transactions) necessitates an efficient storage, indexing and retrieval system. The new IT system is needed to facilitate document searches and inform the Maori Land Court and its clients.

The Maori Land Court IT strategy coincides with the completion of the New Zealand Digital Cadastral Database (DCDB), which contains all known parcels of land which have been surveyed (*New Zealand Official Yearbook 1996*). However, the DCDB does not include partitioned Maori lands, which have been approved by the Maori Land Court but have not yet been surveyed. About 2,500 Maori land titles were available for digitisation when the DCDB project was conceived (Dale and McLaughlin, 1989), although independent estimates suggest that these only represent a proportion of all possible titles. Unfortunately, this gap in the cadastre is quite severe and has prompted a call for an overhaul of the national cadastral information system (Winmill and Morton, 1993).

The DCDB is now widely employed as a base map in municipal and natural resource Geographic Information Systems (GISs) throughout the country. Eager to take advantage of this new technology, some Maori trust boards have begun employing GIS as a key component in their IT strategy. The trend has been facilitated by the availability of DCDBs, drafted especially for Maori purposes, such as lands recently returned by the state to tribal authorities. Figure 3 indicates the main locations of Maori land confiscation claims.

Theoretically, the Maori adoption of GIS could be hailed as a vindication of the view that GIS can serve as a democratising tool (Goodchild, 1995), or even as an



**FIGURE 3:** Maori land confiscation claims

instrument for self-determination (Marchand and Winchell, 1994). However, these optimistic assessments of GIS are at odds with a longstanding cynicism that marks the view of modern cartographic representation as a perpetrator of cultural prejudice. In a study of American representation of indigenous Indians, Harley (1994) concludes that all maps construct a world in the image of society rather than hold a mirror to an objective reality. In another sober assessment of the partisan nature of IT, Manuel (1996) commented:

"The fact that new technologies are focused on information processing has far-reaching consequences for the relationship between the sphere of socio-cultural symbols and the productive basis of society. Information is based upon culture, and information processing is, in fact, symbol manipulation on the basis of knowledge; that is, codified information verified by science and/or social experience."

Land tenure is a major institutional concern for most communities. While the relationship between land and people is relatively dynamic in most societies, it is not always appropriate to treat land as an ordinary asset subject to market mechanisms. In both traditional and modern societies, land is a primary element of the social and ecological fabric, and a crucial link in a delicate balance between economic, environmental and cultural agencies. The lack of recognition of cultural values and other institutional conditions is probably the most common cause for the ineffective functioning of a cadastre (Dale and McLaughlin, 1989).

Although some Maori-based information has been transcribed in the course of use and occupancy studies, there is no systematic inventory of this material. Similarly, although some imaginative approaches to incorporating cultural values into land resource planning have been suggested, there is no established way of incorporating Maori land information into official practice (Harmsworth, 1995). Furthermore, it has been argued that the land information community in New Zealand is beset by wider cultural failures, including a gender imbalance in the ranks of the surveying community (Ballantyne and Bonham, 1993).

## CONCLUSION

All maps construct a world in the image of society. They reflect and convey cultural constructs of a natural and physical world that is shaped and perceived by people for their particular social and cultural purposes. The land information system that has developed in New Zealand has been highly structured by a politically dominant settler culture which places strong emphasis on individual private property rights. The clear and exact identification of private property rights has gone hand in hand with development of a property records system that allows secure trading of land "parcels", as commodity units, unlinked to the cultural and environmental properties of space and place. This land information management system has been sustained historically by a mercantile and settler culture quick to forget about colonial conquests and questionable land confiscations, and more recently by a culture valuing individualism, enterprise and change.

However, recent land information management and planning legislation in New Zealand has obliged resource managers to respect the traditional rights of Maori in relation to ancestral land and natural resources. Although modern conditions mean that some Maori no longer hold to traditional values of land and resource management, there are some who still do. The role of *kaitiaki* (guardian of the spiritual health and welfare of ancestral lands) has been incorporated into national legislation which promotes sustainable management of environmental resources. Furthermore, rights to ancestral land and involvement in the consultation procedures required to formulate public policy for that land depend on a genealogical connection to a *hapu* (the clan-based cadastral unit) and on an awareness by the individual of their connection to past and future generations.

The involvement of Maori in resource management to date has been somewhat patchy and circumscribed. Both Maori and government officials at all levels are feeling their way in relation to legislative provisions which, too many, still seem only recently enacted. Increasingly, Maori have become impatient with the slow pace of land management policy development and have challenged politicians and government officials to involve them in a meaningful way. They have begun to assert their different cultural values and to insist that these values are reflected in the exploitation of land and environmental resources. A growing number of non-Maori New Zealanders have become aware of Maori concepts such as *wahi tapu* (sacred sites) and *taonga* (treasures), and how these relate to land and natural resources. This involvement of Maori, together with a wider knowledge and acceptance of Maori concepts into public resource management policy, can be expected to influence the evolution of land information systems.

Successful reform of the New Zealand land information system can only be achieved by meeting the needs of the different client groups that are affected by the collation and supply of land information. A management appreciation will be vital of the legal, technical and cultural constraints under which the prospective land information system will operate.

Maori land issues present planning and cadastral experts with a complex set of problems. The situation has arisen from a legacy scarred by land confiscations, the intensification of agricultural production, and an apparent intolerance of Maori land management practices. A solution to these problems will need to embrace modern legal, environmental and economic standards, as well as acknowledging Maori cultural values in their tribal and national contexts. As Kawharu (1977) observed:

"Choices open to tribal groups and to the individual were much as they had ever been. But since the Treaty of Waitangi in 1840 they have become increasingly qualified by the operations of a sophisticated market economy. And whatever the action taken by the Maori in terms of these qualified choices, almost all have lent their own special impetus to the disintegration of his (*sic*) community life. Yet land still offers him opportunity, both for raising his material level of living and for maintaining his cultural identity as a Maori."

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