

Conflict of Uses in the Natural Environment

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자연환경 이용상의 갈등

Abstract : This paper will examine in detail the fundamental geographic issue of human pressures on the use of land and the ocean in a New Zealand context. Environmental conflict stems from human needs and wants obtained from land and water resources.

In New Zealand, the 1991 Resource Management Act has sought to provide a systematic way of dealing with conflict of use. The Resource Management Act has gained international significance as a leading piece of environmental legislation with President Clinton's Council screening a documentary on the Act and sustainable development.

Using a variety of case studies, this paper will discuss if indeed this environmental legislation is performing to its expectations of maintaining and protecting the high quality of New Zealand's natural resources. A key point will be cultural values and attitudes to the environment, examining how they influence use of the environment and how the legislation interrupts conflicting uses.

Key Words: Resource Management Act, Natural Resources, Ngai Tahu, Conflict of uses, Reverse Sensitivity

요약 : 이 논문은 뉴질랜드를 사례로 인간이 육지의 해양을 이용함에 따라 미치게 되는 근본적인 지리적 문제들을 자세히 살피고자 한다. 환경적 갈등은 토지자원과 수자원에 대한 인간의 요구와 필요에서 비롯된다.

뉴질랜드에서는, 자연자원 이용의 갈등을 체계적으로 다루기 위해 1991년에 자원관리법을 제정하였다. 클린턴 대통령 자문회가 이 법안과 지속가능한 개발을 검토함으로써, 이 법안은 선도적인 환경관련 법률의 하나로서 국제적인 중요성을 갖게 되었다.

이 논문에서는 다양한 사례연구를 통해서, 이 자원관리법이 뉴질랜드 자연자원의 높은 질을 유지하고 보호하고자 했던 소기의 성과를 거두었는지에 대해 논의하고자 한다. 이러한 논의에서 핵심이 되는 것은, 자연환경에 대한 문화적인 가치의 태도, 그리고 이러한 것들이 자연환경의 이용에 어떻게 영향을 주는지, 또한 자원관리법이 자연자원의 이용에서 발생하는 갈등을 어떻게 조절할 수 있는지에 관한 것들이다.

주요어: 자원관리법, 자연자원, Ngai Tahu, 이용상의 갈등, 역감도

1. Introduction

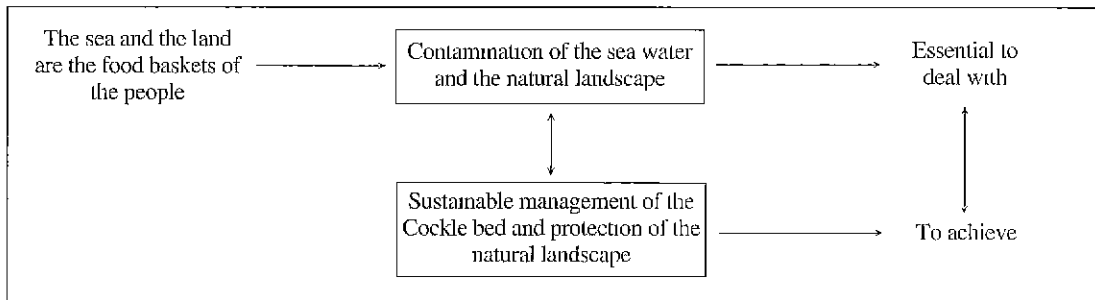
The Resource Management Act 1991 requires local and regional councils to look at the effects of any activity rather than the activity itself. Any person is able to use their own land in any way they want provided there is no adverse effect on the environment.

Through this legislation the people of New Zealand have become committed to managing natural and physical resources sustainably and to

take into account the needs of future generations. As a result of the Act, the Environment 2010 Strategy was created and formally adopted by the New Zealand government in September 1995. The vision of 2010 is "A clean, healthy and unique environment, sustaining nature and people's needs and aspirations." Eleven priority issues are identified which include managing our water and land resources. Our case study will summarise issues raised by the conflict of uses in the natural environment.

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2. The Case Study of Conflict of Use



3. The Banks Peninsula Area

Once the site of Canterbury's most populated Maori settlements, today only a few residents are permanent with many holiday homes around the Port Levy. There is a small jetty at the main settlement and pastoral agriculture dominates the landscape. The landscape has altered significantly since the turn of the century, with massive deforestation of the native bush that covered the hills of Banks Peninsula.

For the local Maori, shellfish gathering has been an important part of their life in Port Levy. Not only did it provide food, and allow the practice of sustainable management of a resource, the activity established a *mihi* (a sense of place, which identified the local people to their own special place). The depletion and pollution of the cockle beds is significant to the cultural significance of the activity, as well as the resource. With the deforestation, a major waste outfall and a busy port beside Port Levy, these are the main examples of human pressure on the natural environment.

Port Levy on the Banks Peninsula provides a suitable habitat for *Austrovenus stutchburyi* (Cockles). Living in the quiet harbour waters, estuary tidal flats, and sheltered coastal sandbanks. (Penniket, J.R, 1973), up until the 1960's the cockles provided food for the local people in abundance. Since then the number of cockles have declined as a result of degradation of the environment. Cockles are an

important indicator of environmental quality, there life cycle revolves around digging into the sand and protruding their two short siphons, for inhaling seawater, and the other for releasing filtered water. This is why the depletion of a cockle bed is so detrimental to the population as it is a difficult task to be able to bring the cockle population up to a standard that it once may have been. Cockles have many predators, including humans, birds and destructive use of its habitat.

The Issues

- The continual degradation of water quality as a result of attitudes to the environment.
- Human pressures on the coastal area from boat users/walkers/dogs/recreational uses.
- The erosion of the surrounding hillside resulting in run-off on to the beach.
- The harvesting of Cockles by other cultural groups while a ban is in place.
- A lack of understanding of the cultural significance of Cockles to Maori and Maori resource management practices.

4. Cultural Values Regarding Land & Water

Land and water are an essential part of the whole of life, which are reflected in reference to Papatuanuku (Earth Mother). The relevance of

land, water and their resources to Ngai Tahu are emphasised in this old proverb:

*Toitu to marae o Tane
Toitu to marae o Tangaroa
Toitu te iwi
If the world of Tane survives
If the world of Tangaroa survives
The people live on.*

Tane is the god of the forests and its resources, while Tangaroa is the God of the sea and waterways. The Maori worldview regards resources as living reflections of their gods and Maori reference to these resources reflects this status. Water is a significant resource to Maori and a central component in their spiritual and earthly worlds. Water represents the lifeblood of Papatuanuku (Earth Mother) and the tears of Ranginui (Sky Father). The condition of the state of the water is viewed as a reflection on the state of the land, and this in turn is a reflection of the health of the tangata whenua (people of the land).

Water is an essential element to all life and expresses all dimensions; taha wairua (spiritual significance), taha hinengaro (intellectual dimensions), taha tinana (physical dimensions) and taha whanaunga (social aspects) (James, 1993). Maori belief goes beyond the idea of water quality, to attach life (mauri) to water itself. Conceptually, every body of water has its own mauri and wairua (spirit) is guarded by its own taniwha (supernatural being) and carries its own mana (status).

The management of water by Ngai Tahu is expressed in terms of the effects on mahinga kai. This reflects the importance of mahinga kai to tangata whenua and how traditionally the health of these resources is considered indicative of the physical and spiritual health of the environment as a whole. As a result, when Ngai Tahu stress the need to restore an area's mahinga kai values they are also speaking of the wider need to restore the mauri of the water (Jull, 1989).

5. Land Use

The use of the land surrounding the cockle beds at Port Levy is an important factor in this equation of conflicting uses causes environmental harm. Section 85 of the Resource Management Act 1991 covers the term "reasonable use" of land. This term is given an extended definition under this piece of legislation. This makes it clear that "uses" which do not impact on people (other than the owner of the land) or the environment can be determined and classed as "reasonable uses."

The current use of this land for agricultural practices creates erosion. This run off from the erosion is impacting and causing a harmful effect on the water and the cockle beds. Granted this is not the only harmful effect on the cockles, it has to be seen as a contributing factor.

Under this section any person who owns land that has been rendered incapable of "reasonable use" can challenge the provision of any planning and make an application to change the use of the land. In this situation trees would be a sustainable land use to prevent erosion. This leads to the next method of sustainable planning that has appeared to deal with human pressures creating conflicting uses.

The law has recognised another methods of planning by using the term "reverse sensitivity."

This term requires interruption with conflicting uses and will avoid conflict arising by preventing the proposed land use. It will put in place safeguards to remove the new sensitive activity on the land preventing existing activities operating.

The "reverse sensitivity" principle is consistent with the purpose of the Resource Management Act 1991, which is the sustainable management of natural and physical resources. In relation to land use this concept has been applied successfully in the following New Zealand case studies: Aratiki Honey Limited v. Rotorua District Council [1984] 10 NZTPA 180, Himatangi Farms Limited v.

Manawatu District Council Decision No W 37/91, McQueen v. Waikato District Council A 045/94 3 NZTPA 644 and Auckland City Council 1997 NZRMA 205.

The key theme these case studies have established is summed up in these two points:

1. If an existing land use is in the near vicinity is creating effects which the proposed use may find harmful, then the proposed use should be located on an alternative site.
2. If the proposed land use is next to an existing land use producing harmful effects, there are mechanisms that can be put in place to ensure the new land user would not be able to complain.

These are key mechanisms that can remedy conflicting uses created by human pressures on the natural environment.

6. Local Fisheries and Habitat Management

The overall management of fisheries is a Crown function in terms of Article I of the Treaty¹⁾ but under Article II there is also a clear function of Maori control. This latter function has been provided for to a limited extent by the inclusion of Maori representation in certain parts of the Crown management structures. However, there is minimal opportunity for Ngai Tahu to directly exercise any measure of their Article II management and kaitiakitanga²⁾ functions in the fisheries off the Ngai Tahu tribal coast. Management structures should be established or amended so that provision is made (Ngai Tahu Ki Otago, p.78).

Over the years the Crown has proposed and developed a variety of local management methods. Currently Rahui, Marine Reserves, Mahinga Mataitai and Taiapure are available. Maori support this type of management as it is localised and can

better recognise manawhenua, environment and the community involved.

7. Rahui

Koukourarata Runanga and the Port Levy community elected to use rahui as a means of locally managing the cockle beds. The way this took place was under the:

Fisheries (South-East Area Amateur Fishing) Regulations 1986 [R. 7A Restriction on Taking Cockles From Port Levy-

- (1) No person shall take any cockle from the Port Levy area during the period commencing with the 7th day of December 1995 and ending with the close of the 30th day of September 1998, or be in possession of any cockle taken from that area during that period
- (2) In subclause (1) of this regulation, "Port Levy area" means all those waters of Port Levy lying to the south of a line drawn from Adderley Head (at 43°36.36'S and 172°49.66' E) to Baleine Point (at 43°36'33" S and 172° 51.19' E)]

8. Marine Reserves

This is an option under the Marine Reserves Act 1971 that the local Runanga could explore as a management option. Under section 2 of the Act "marine life" as defined could include cockles which are inhabitants of the foreshore³⁾. The sole purpose of a marine reserve is to preserve for the purpose of scientific study of marine life, areas of New Zealand territorial water. This body of water must contain marine life of such distinctive quality, or so typical, or beautiful, or unique, that their continued preservation is in the natural interest. This option for management places all rights in the hands of the Government Department of Conservation and uses rangers for enforcement and overseeing the reserve. The key obstacle of a

marine reserve in our case study is that the iwi could be completely excluded from the coastal and marine resources. This can result in conflicting uses.

9. Mahinga Mataitai

The Treaty of Waitangi(Fisheries Claims) Settlement Act 1992 provided for mataitai reserves as discrete areas of traditional importance to Maori where the tangata whenua are authorised to manage and control the non commercial harvest of seafood. The key difficulty with this type of structure would be the rest of the Port Levy community could be completely excluded and any enforcement of bylaws that can be created is always difficult.

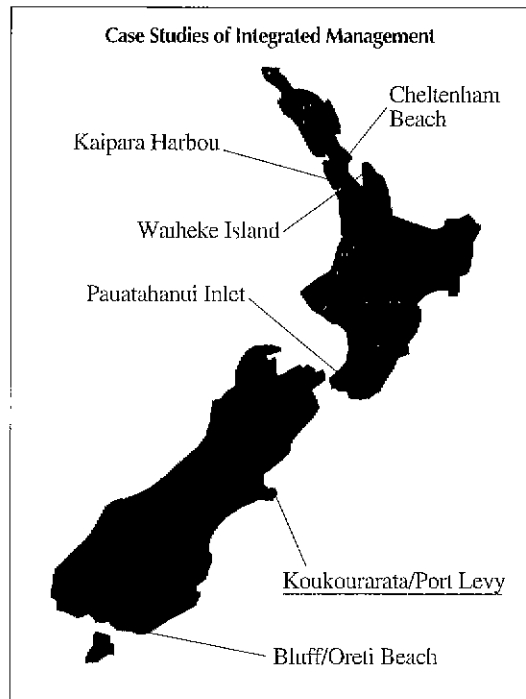
10. Taiapure

Under the Fisheries Act 1983 taiapure were established to allow Maori shared management of coastal areas. Taiapure are local fishery areas, in estuarine waters or the region beside the sea or a lake, which are of special significance to Iwi as a source of seafood or for spiritual or cultural reasons.

Case Studies of Integrated Management in Coastal Communities

Dr. Nick Smith, Minister for Conservation stated, "Our understanding of the marine environment is very crude"(North & South May 1998). In New Zealand there has been several community initiatives of integrated management in coastal communities. The locations are contained in the map below.

In this case study the authors identified the possibility the following list of integrated management partners: Rapaki Runanga, Ministry



of Fisheries, Canterbury Regional Council, Banks Peninsula District Council, Iwi, Ministry of Health and Scientific Agencies eg. Lincoln Ventures, NIWA.

The key issue for the Koukourarata Runanga is what type of management structure from the choice available should they use to continue to protect the cockles?

As investigation and implementation of ideas needs significant funding, time, effort and expertise, the Government established the Sustainable Management Fund opens up avenues for both the Koukourarata Runanga and other integrated management partners to work together to remove the conflict of use.

11. Use of the Environment

Our preference for Koukourarata Runanga is for a mahinga matatai management plan for the cockles from the year 2001. This mahinga matatai

should be exercised in conjunction with Rapaki Runanga over the body of water from Godley Head to Beacon Rock as presented at the conference.

Mahinga matatai are highly valued and can be categorised as waahi tapu, which is the state given to an area in recognition of the tapu(scared nature) associated with it. James(1993) states that Mahinga matatai are particularly important for two reasons. Firstly, they are used as indicators of the health of the environment. Secondly, they are essential for the iwi to provide hospitality to their guests and in this way they can enhance the Iwi's mana.

The central problem is the New Zealand law⁴⁾ gives the right to discharge effluent into water provided that certain water standards appropriate to the area, for example, fishing areas, can be maintained.

James(1993) has outlined the current issues, which should be addressed in relation to waitai as follows:

- I. Recognition and provision for the cultural and spiritual relationship of tangata whenua with water bodies. This would include the exercise of kaitiaki and participation in the development of water management plans, water classifications and standards.
- I. The tangata whenua will seek to maintain and restore the quality of waterways of significance to them. For example, waters associated with food gathering areas.
- I. The mixing of waters from one river to another is unacceptable because it involves the mixing of mauri which may pollute the wairua of those water bodies.

12. Land and Water Management Option Identification

In our case study converting the use of the surrounding land to forestry would eliminate

environmental degradation. Human pressures can be removed using signs at the official boat ramp, obstructions in keeping with the amenity value of the area at the unofficial boat ramp and general education of the residents.

The Proposed Regional Coastal Environment Plan identifies specifically that 'water quality in some of the bays and harbours is lower than is desirable if the area is to support a wide variety of uses such as marine farming'⁵⁾. To deal with the entire water body is the only option to get the water quality improved. If this entire area was to be identified as being of special value in the Coastal Environment to the(Koukourarata Runanga and Rapaki Runanga) as the tangata whenua of the area there are provisions under the New Zealand Coastal Policy Statement(1994) for management of this area. The Canterbury Regional Council could consider the transfer and/or delegation of functions, powers and duties in relation to the water quality under the Resource Management Act⁶⁾.

The Canterbury Regional Policy Statement⁷⁾ provides that the Regional Council will investigate methods to provide for the greater involvement of individual Runanga in the management of natural and physical resources. The Canterbury Regional Council could transfer under section 33 any one or more of its functions, powers or duties to the Koukourarata Runanga. There are also options of transfer from the Banks Peninsula District Council under the same legislation.

13. Bicultural Management Mechanisms

These are two complete management options for the coastal marine area of Port Levy which would give the local Runanga complete control over the coastal water contamination issue and the cockle beds management in the coastal marine area. This

should be shared jointly with Rapaki Runanga and financial resources would also have to be transferred.

Management guidelines should be based on:

- Investigating, monitoring and controlling the effects of dredging the harbour and coastal environment.
- Establishing and then adhering to timeframes for elimination of contaminants causing harm to the cockles and the coastal environment.
- Following the precedent of training local iwi to do the microbiological testing.
- Monitor the cockles for quality and whether they are actually edible.
- Set environmental standards for consent conditions in keeping with the restoration of the cocklebeds.
- Install collection facilities at the Lyttelton Port for the collection of shipboard sewage and develop protocols to control the discharge of bilge and ballast water in the coastal environment.
- Monitor the erosion rates of the surrounding land within the vicinity of the cocklebeds.
- Encourage planting's in areas where there is erosion with all the runoff and sediment ending up in the seawater or on the foreshore resulting in adverse environmental impacts.
- Create a restoration of the burial site that is in keeping with cultural values and addresses that some of the erosion runoff goes via this sacred site.
- Prohibit dogs from being allowed in the cockle beds on the beach by using appropriate signage. There is sufficient other areas of beach available that animals can be exercised. This is an issue in the local council jurisdiction.
- Control and monitor visitor and recreation activities within the coastal areas to avoid adverse effects on the cultural values of the Port Levy area.
- Monitor and ensure the sustainable use of sands.

14. Conclusion

The Act clarifies that to achieve sustainability of the natural and physical resources the Maori concept of Kaitiakitanga⁸⁾ (guardianship) and the maintenance and enhancement of the quality of the environment⁹⁾ must be taken into account by resource management structures. In achieving the purpose of the Act, all management functions have to provide for matters of national importance in New Zealand. The cockles come within the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu(sacred sites) and other taonga¹⁰⁾.

The case study on cockles reflected the interruption of conflicting uses by two entirely different mechanisms(one for water and one for land). The Resource Management Act 1991 reflects the cultural attitudes but does not provide for the exact management options for implementation. The cultural management systems for the cockle habitat are found in completely different legislation¹¹⁾.

Interruption of conflicting uses can only take place if the Resource Management Act transfers all the management powers available for the land and water¹²⁾ in the locality concerned. Then a natural synergy takes place with the other management options including cultural management available under any other legislation. A piecemeal approach cannot be used under any circumstances. To go down that path contributes to increasing conflicting uses. The Resource Management Act 1991 interrupts conflicting uses on land by the change of use option¹³⁾ and the emerging caselaw concept of "reverse sensitivity." The case study on the cockles suggests that the complete picture of the human pressures on the use of land and water has to be considered for there to be effective sustainability of the high quality of New Zealand resources.

Definitions

Maori - New Zealand's indigenous peoples; Runanga - Local Maori community; Koukourarata - Port Levy's Runanga; Ngar Tahu(Kai Tahu) - South Island's leading tribe; Kai - Food.

Notes

- 1) Treaty of Waitangi
- 2) Section 7(a) RMA
- 3) The definition states marine life means; any specimen of the species whether alive or dead, and any part of any specimen, and the seed, spores, eggs, spawn, young, fry, and offspring of the species.”(Section 2)
- 4) The Resource Management Act 1991(R.M.A)
- 5) Chapter 3 - 3 2.5
- 6) Sections 33 & 34 of the RMA 1991
- 7) Policy 6.2.2
- 8) Section 7(a) of the RMA 1991
- 9) Section 7(f) of the RMA 1991
- 10) Section 6(e) of the RMA 1991
- 11) The Fisheries Act, The Fisheries Regulations and the Marine Reserves Act.
- 12) Section 33 and 34 of the RMA 1991
- 13) Section 85 of the RMA 1991

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