Ecotourism - the Maungatautari example

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Much of the value of restoring ecological processes on islands and areas on the mainland lies in answering the question, "how worthwhile is it, in *any* circumstances, to control invasive weeds and pests?"

When the Maungatautari Ecological Island Trust (MEIT) builds a 50 km pest proof fence around Maungatautari, a 3400ha forest-clad mountain in the heart of the Waikato, and then eradicates all the pests, we will travel down a restorative path largely ignorant of how the environment functioned just a thousand years ago, before human settlement.

We will learn a lot as we clumsily put the ecological jigsaw puzzle back together again. And of course there will be some missing pieces, for example, the recent extinctions like moa and huia.

There will be value in this new knowledge and in the recovered "dawn chorus", but how do we price it? If we can't price it, if it has no value, then how do we give the Maungatautari Ecological Island Trust a long life free of begging?

The answers begin in what makes the Waikato community seek to restore the mountain to something as close as possible for its "unspoilt" state, i.e. the state it was in before exotic pests and weeds invaded it.

We have a sense of natural value lost; a longing for what we know was once there. This is based on knowing just how different our forest ecology was to that of any other country, evolving as it did in the absence of mammals (with the exception of the 2 species of bat).

The ecological niche occupied by mammals in other countries, was filled here by the extraordinary array of invertebrates, lizards, frogs and birds.

And many of our endemic plants came to be extraordinary as well, partly as a response to the set of animals that evolved.

Maungatautari is owned by various parties:

	hectares	% of forest area
Public Land	2537	75%
Maori Land	536	16%
Private Land	290	9%
TOTAL	3363	

Like every other area of native forest in NZ where there is no regular pest control, Maungatautari declines year after year in "ecological health" almost entirely as a result of introduced pests – mainly rodents, mustelids, cats,

hedgehogs and possums and limited numbers of goats, pigs and deer.

TB leaking out of the mountain into cattle on adjoining farms 5 years ago caused Environment Waikato to carry out a 1080 drop. Local farmers have noticed an improvement in the health of the native trees and shrubs subsequent to the drop as well as an increase in kereru numbers.

To bring back the "dawn chorus" through the total and permanent eradication and exclusion of all the pests on Maungatautari, and then through the re-introduction of the species that once lived there, will be an extraordinary and spectacular achievement. So spectacular that the mountain will attract tens of thousands, and eventually maybe hundreds of thousands of visitors each year. So exceptional will be the guided walks they take, so loud the birdsong, and so vibrant the ecological processes, that many people will happily pay to visit the mountain.

Then the value of the mountain will be realised, because it has become a place where people can have a special experience. The objective of the M.E.I.T is, within 6 years, to be economically strong and independent. It requires \$14 million of capital to build the 50km fence, eradicate the pests, build pathways and 2 education centres, and re-introduce lost and threatened species.

But once this is done and the visitors, students and researchers are flocking to the mountain to achieve their various ends-enjoyment, learning, and discovery, then the Trust will be economically self-sufficient.

What about the cost of doing the job? What is the return on the \$14 million dollars it will take to restore this haunting beautiful shell back into a vibrant forest? How much would this transformation add to the value of each hectare of Maungatautari?

My contention is that Maungatautari restored will have a capital value \$20,000 per hectare greater than is its value today. This represents the conservation of New Zealand biodiversity on a significant scale. How could you argue with my estimate, unless you were to tell me that I had under-estimated the increase in value?

Now \$20,000 per hectare on 3400 hectares comes to \$68 million. Not a bad return for the expenditure of a mere \$14 million!

The Maungatautari Trust is a not-for-profit charitable Trust that will apply every dollar it receives to building the fence and the tracks, pest eradication, and the education centres. From 2008 onwards it will have sufficient annual earnings to maintain its capital infrastructure, as well as continue to pay for the re-introduction of species that have been lost to the mountain.

All the donations, membership fees, and earnings will be ploughed back into achieving its vision which is:

"To remove forever, introduced mammalian pests and predators from Maungatautari, and restore to the forest a healthy diversity of indigenous plants and animals not seen in our lifetime."

The Maungatautari Trust has arisen out of the local community who have been excited by the possibilities for forest restoration offered by two new technologies – scientifically tested pest-proof fencing, and established pest eradication techniques. Combine these two, and the vision can be achieved.

In its early life the Trust sought and received support from the Waipa District Council, Department of Conservation, Environment Waikato, South Waikato District Council, and Mighty River Power (our Foundation Sponsor). All of these have shown an enlightened and progressive attitude towards this bold local initiative.

The Trust is well on the way to gaining a sort of "honorary stewardship" of this mountain on behalf of the various owners and feels that privilege and responsibility very keenly. This is being achieved by extensive and patient participatory consultation. More of this in a moment.

We think this community driven Trust, working with land that is owned by the Crown, by local farmers, and by Maori, is likely to produce a superior social outcome than may have been achieved under either straight conventional public ownership (there are restrictions on what can be done in the "DOC Estate"), or pure private commercial ownership. Two reasons for this are:

- This charitable ecological recovery programme exists for everyone – it will attract substantial volunteer labour.
- People will more readily give to a not-for-profit organisation whose goals are environmentally "noble", and which is seen to be run by locals in an open, efficient and professional manner.

We used Participatory Appraisel consultation to earn the trust of the 4 classes of owners. DOC have delegated the administration of the public land to the Waipa District Council who have also purchased land on the mountain themselves as it has come up for sale over the years. We needed both of these bodies to come on board. They have. Maori and adjoining farmer landowners are the other 2 groups and they are adopting the project very well.

We trained 20 people in the skills of Participatory Appraisel and in the practical part of the course they consulted with large numbers of members of the community one-on-one about the mountain, and the project. They asked people what their thoughts were about both.

Further rounds of consultation are going on now with both iwi and adjoining landowners. The objective is to have a covenant attached to each title that defines the permitted activities and protects the rights of both the landowners and the Trust.

The project depends on its ability to gain and maintain strong support from these people and the community. If the idea is good enough and the consultation is done professionally and patiently, then an ambitious project like Maungatautari can succeed.

The possibilities for ecotourism that lie ahead are considerable. Each year several hundreds of thousands of people pass closeby to Maungatautari on their way to Rotorua and the Waitomo Caves. Ecotourism will be a major income earner for Maungatautari enabling it to continually add to the restoration of the mountain, maintain and improve its facilities, and be independent.

The tourists' entry fees to Maungatautari and other spending made while in the Cambridge, Te Awamutu, Hamilton and Tirau districts, in order to visit the mountain, will provide income to both the project and the Waikato district.

Maungatautari, Karori, and projects like them will convince many of their visitors about the value of conserving biodiversity. The inspiration these people feel will move them to protect their own natural resources and support conservation efforts. Those who work in ecotourism are influenced in the same positive way.

We are members on Conservation International, a large conservation organisation based in Washington. They define ecotourism as, "responsible travel that promotes the conservation of nature and sustains the well-being of the local people." Maungatautari fits.

Ecotourism is a specialty segment of nature tourism. Nature tourism has been growing at an annual rate of 10% to 30%, while overall tourism has grown at a rate of 4 % annually.

New Zealand has a Biodiversity Strategy to save the remaining indigenous species. The Biodiversity Strategy project noted that, "By around 1600 about one third of the original forests had been burned and replaced by grasslands. A quarter of New Zealand's native land based birds, some 34 species, paid the price. These birds included the giant Haast's eagle and all 11 species of the giant flightless moas.

From around 1850 European settlement started a new wave of forest clearance. Since then, a further one third of our forests have been converted to farmland, and extensive drainage of wetlands and removal of dunes has continued. More extinctions resulted from loss of habitat and the introduction of mustelids, 2 more species

of rat, mice, cats, possums etc.

When I was deeply involved in the drainage of peat swamps in the Waikato in the 60's and 70's I felt I was on a virtuous mission. Pasture versus wetlands – it wasn't even a close call. Development of peat into pasture won every time.

In the book, "Conservation Strategies for New Zealand", Peter Hartley of the Tasman Institute writes "The production of conservation outputs is an "economic use" of resources even if the value thereby produced is not reflected in market prices."

The conservation outputs of Maungatautari *will* be reflected in market prices. We predict the main price will be that paid by members for membership and visitors for entry to the mountain.

Here is another prediction. The education system will pay the Maungatautari Trust well to give children special environmental experiences that enhance their learning of our natural heritage. Being close up to kiwi and tuatara, observing close up the life cycle of the giant weta, and seeing close up how the hierarchy of native plants fit together. Reaching an understanding of the complex interrelatedness of the elements of New Zealand's native forest ecology. And having the children marvel at how special it all is.

The children will come to understand the destructive impact of introduced pests on our ecology. They will feel uplifted by being in a native forest free of these pests and therefore flourishing. They will learn to read the signs of forest health.

Educators will allocate part of their budgets to have their pupils actively learn in Maungatautari and forests like it. Maungatautari will be a real-life classroom. The educators will be happy to contribute to its upkeep.

We are waking up to the fact that if we value good environmental experiences and practices by paying for at least some of them, then we can accelerate the spread of conservation work all over. On the other hand if we adopt the view that a threatened species, say kiwi, are *so* valuable they cannot have a price tag put on them, then we will have few join in the effort to save the kiwi from extinction. Firstly the practice will not be out there in the public arena, and secondly it is not ascribed any value, however arbitrary that may at first be.

For example, people are more likely to invest in a pest

proof fence around their private native forest, and eradicate the pests, if they have the prospect of growing and multiplying up threatened species in their "safe" forests, and being paid for doing so.

In the wild only 5 % of kiwi chicks survive to adulthood, most perishing due to predation. In Operation Nest Egg, DOC recover kiwi eggs from the wild with great skill, (allowing the kiwi pair to start over again and hatch out a second pair of eggs). With great skill DOC incubate and hatch the recovered eggs. Then there is the lack of safe pest free forests in which to release the chicks and *naturally* and safely grow them to 1200 grams in liveweight.

To have private people doing this is important to the success of DOC's Operation Nest Egg. These small pest free native forest areas would allow the kiwi chicks to grow safely and naturally from hatching at 300 grams liveweight to about 6 months of age and 1200 grams. This in turn would mean that the young kiwi could be placed back into the forest from which the eggs were originally taken and probably survive. For at 1200 grams liveweight they are strong enough to resist stoat attack, and have a 90% chance of survival.

Can you imagine us just carrying on as we are, resulting in the extinction of kiwi on mainland New Zealand within 20 to 25 years? Not on your life.

We will value and step up our conservation effort. Maungatautari represents a different type of ecotourism to the usual. There are 2 elements to this.

- It will be a New Zealand native forest restored by the hard work and ingenuity of the local community to a rather beautiful state. A walk through the bush – attractive, interesting, informative, and restorative.
- The example of Maungatautari, like the example of Karori, will encourage other people to create more pest free native forests.

People will pay gladly for the experience of visiting Maungatautari. We can advance from the nebulous concept of the forest having "intrinsic value", to giving it real tangible value and so bring it to the attention of many more people than would otherwise be the case.

That is not to deny the kind of spiritual pull many feel about these special places. But it is to do something practical about increasing their importance in people's lives.