



Ministry for the
Environment
Manatū Mō Te Taiao

Our clean green image: What's it worth?



Valuing New Zealand's clean green image

Imagine that you live in Asia, or Britain or perhaps the US. You have driven home through the smog to your cramped apartment, and as you eat your dinner you see on TV images of snow-capped mountains reflected in crystal-clear unpolluted lakes. Cows graze in lush green pastures, native birds sing in the forests, waves thunder onto deserted beaches, and happy healthy people are having fun. It is New Zealand, and it looks like paradise. So you think to yourself, I want to eat food that comes from there. I want to go there on my holiday.

This is the vision, the impetus behind much of the way New Zealand markets itself to the international community. We are clean and green so people want to eat what we produce, experience our unspoilt environment. We know that. Or do we? Is this really what makes people buy New Zealand? Are we sure? Does our clean green image influence all those buying our food? Or just a few? And does it really matter to people who are thinking about a holiday?



Answering these questions is important to New Zealand's future. The Government needs hard evidence on which to decide the role it should play in promoting sustainable development. The Government needs to know how big the economic opportunities are which our environment supports. In effect, we need to put a dollar value on our clean green image.

In early 2001 the Ministry for the Environment commissioned PA Consulting Group to estimate this value. The study has looked at whether we are as clean and green as we think we are, and surveyed key export customers to gauge how much our environmental image influences their purchasing decisions. The results provide quantitative evidence about the extent to which consumers in our export markets choose to visit us or buy our products on the basis of our image. They complement the findings of *Green Market Signals*, an earlier qualitative analysis.



Putting a price on paradise

How do you put a price on our clean green image? No one can do this definitively, but the study's approach was to do this by concentrating on three export sectors:

- dairy products
- tourism
- organic foods.

The reasons for the first two are obvious. Agriculture is New Zealand's single largest earner of export dollars, and the dairy sector is the largest agricultural export earner (around \$5 billion in the year ended June 2000). Tourism is a fast-growing sector with enormous potential and a similar size to dairying. In both sectors it's obvious that the environment is a factor.

In contrast, organic food is a relatively small export earner. It was included because organic food has shown rapid growth, particularly in Europe and the US, and also because of its current high public profile. Also, organic production is fast becoming a major marketing trend in the UK and Europe, where food scares are making consumers much more conscious of what they eat.

Is the environment valuable?

The results of surveys of a selection of New Zealand's key export customers indicate that our clean green image does have a significant export value – our environmental image is a key driver of the value of goods and services in the international market place.

This quantitative evidence backs up other evidence on the environmental contribution to export value:

- export sectors recognise the need to promote New Zealand's image as a producer of food in a natural environment, and to develop appropriate environmental standards for production, processing, packaging and storage
- many consumers are buying organic produce because of concerns about food safety
- tourists are attracted to New Zealand because of the "real nature experience" and have high expectations about scenery and landscape.



What were consumers asked?

Key customers were selected from within these three sectors.

The dairy survey was conducted at three supermarkets in Kuala Lumpur, Malaysia, and the results were used to generalise to similar markets in Asia, Africa, India and the Middle East. Consumers were shown images representing a clean green New Zealand, and images portraying New Zealand with a degraded environment. They were then asked if they would continue buying New Zealand dairy products under these worsened perceptions. For the tourism survey, international visitors from our top five inbound tourist markets (Australia, Korea, the US and UK, and Japan) were shown similar types of images and asked how it would affect their length of stay.

The organic food survey was a little different. Two large wholesalers (Organic Foods, the largest organic food supplier in the UK) and Worldwide Fruit (the sole distributor of ENZA fresh produce in the UK) were asked how their buying would be affected by two possible genetic modification policy scenarios in New Zealand: (i) allowing limited field test of genetically modified (GM) crops for research purposes; and (ii) allowing uncontrolled release of GM crops in New Zealand. The focus was on fresh organic produce, because currently it accounts for 80% of New Zealand organic exports.

A brief summary of the results is given in the blue panel.

Research findings

Dairy sector

If New Zealand's environment was perceived as being degraded, on average the consumers surveyed would purchase 54% less consumer products.

The actual loss in revenue would depend on how much of the lost product could be redirected to products and markets where environmental image plays a less important role, so the potential annual loss would vary between:

- \$241 million (all lost product redirected), and
- \$569 million (none of the lost product redirected).

Tourism

The extent of change in purchasing behaviour (measured by change in length of stay) varied by country. Under worsened environmental perceptions, tourists in New Zealand would alter their stay by an average of, for example:

- Australia – 48% reduction
- Japan – 79% reduction
- Korea – 77% reduction.

The annual loss to New Zealand from the five markets covered in the survey of tourists would be between NZ\$530 million and NZ\$938 million (depending on whether lost wages and GST effects are taken into account).

Organic produce

Buyers were presented with two scenarios: New Zealand allowing (a) limited field test of GM crops for research and (b) uncontrolled releases of GM crops.

In the short term New Zealand's organic sector would not be affected by allowing field tests of GM crops for research, although in the long term buyers would probably shift to other sources.

Adopting a policy of uncontrolled release would see New Zealand almost certainly suffer immediate losses, with buyers either stopping or substantially decreasing purchases.

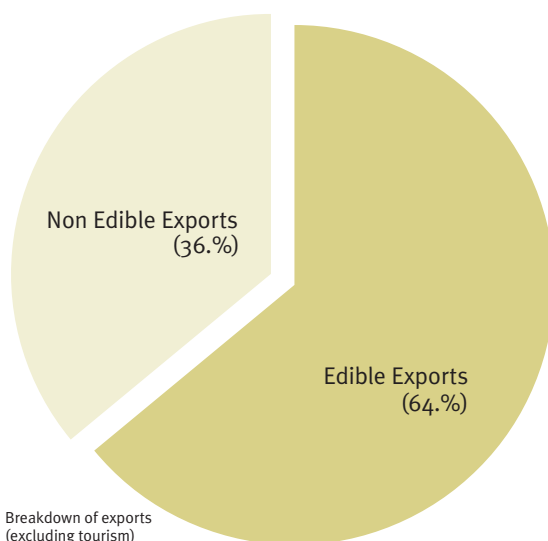
Note: the valuations are estimates only and are subject to a number of assumptions. While these uncertainties may have been of concern if the changes in purchase behaviour were relatively small, the size of the impact is such that uncertainties do little to undermine the significance of the result.



What does it mean?

The findings provide supporting evidence for what we already suspected:

- that if New Zealand were to lose its clean green image, it would have an enormous effect on the New Zealand economy. For one thing, we could lose an edge in many of the prime markets where consumers are careful about what they eat. And, although the surveys covered only dairy products and organic foods, a lot of other products that New Zealand exports in fact get eaten, so the effects of a tarnished environmental image could extend to all of these sectors. Taking these sectors into account, our clean green image is likely to be worth hundreds of millions, and possibly billions of dollars per year.



Breakdown of exports
(excluding tourism)



Do we really need to worry, though? It has been argued, especially in the context of the GM debate, that New Zealand is not as clean and green as we like to believe. That, for example, we use traditional agricultural techniques that put stresses on the environment and cause pollutants to enter the food chain. That our image is just that, a marketing ploy.

In fact, the report does show that the crucial link is between image and export value, and that image is separate from the reality of the state of the environment. That means we have a buffer, a period during which our environment could degrade without it necessarily affecting our image and therefore our exports. This is precisely the danger. All the indications are that in a world of increasingly health-conscious consumers, sooner or later we would lose our clean green image if the environmental reality were to fall behind. And it would be very hard to regain – harder, perhaps, than restoring the environment itself.

The implications for New Zealand

New Zealand is, in fact, relatively clean and green by world standards, but we are vulnerable – there are environmental problems that are serious enough to potentially undermine the sustainability of the value of New Zealand's exports attributable to its environmental image. Areas of concern include:

- poor and deteriorating air quality in two of our major cities – Auckland and Christchurch
- erosion on steeper landscapes and the visual impact of some land-use practices
- degraded freshwater quality, especially from intensive agricultural land use
- a degraded marine environment in estuaries and harbours near main population centres.

There is, therefore, a real risk that the export value created or supported by New Zealand's current environmental image could be lost if we do not actively deal with the problems that threaten the image.

The report shows that our clean green image has real dollar value for our major export markets. This underlines the economic as well as the environmental importance of effective environmental management, including quality regulation. The Resource Management Act and the Hazardous Substances and New Organisms Act provide for sustainable environmental management in New Zealand.



The findings underline the importance of the positive actions that have already been undertaken in the primary production sector (such as developing environmental and quality management systems, food safety systems and encouraging best practice), and the support offered through the Sustainable Management Fund and the Sustainable Farming Fund.

The findings also underline the significance and economic benefit of initiatives such as developing a sustainable development strategy, a waste minimisation strategy, and policy work on triple bottom line reporting. But this report highlights that more action may be needed from Government and the private sector to promote cost-effective business and community efforts to improve environmental performance.

Positioning New Zealand to take maximum advantage of its clean green image, and underpinning that image with a clean green reality, will not only benefit New Zealanders' quality of life directly, but will have clear long-term economic benefits.

The full report, *Valuing our Clean Green Image*, is available from the Ministry's website, www.mfe.govt.nz

For additional information contact Ministry for the Environment, PO Box 10362, Wellington, New Zealand.

Phone (04) 917 7490, Fax (04) 917 7523, email publications@mfe.govt.nz

AUGUST 2001