



Ministry for the
Environment
Manatū Mō Te Taiao

Valuing New Zealand's Clean Green Image

The Ministry for the Environment commissioned PA Consultants to carry out this study (funded by the Contestable Research Fund of the Ministry of Research, Science and Technology) to provide an estimate of the value for New Zealand's export trade of our clean green image.

There is considerable discussion about New Zealand's clean green image, but relatively little solid information about its value. This was clear from an earlier study which the Ministry commissioned through the Sustainable Management Fund, *Green Market Signals*, published in 1999. The current study is, in part, a response to the suggestions received from industry groups and others at that time.

The aim of this current study is to quantify the extent to which particular New Zealand exports benefit from positive perceptions about our environment. The project focuses on three export sectors: dairy, inbound tourism, and organic produce. It assesses the potential consumer reaction to an illustrative decline in New Zealand's cleanness and greenness.

The empirical work done in this study reinforces the qualitative evidence that our clean green image is valuable, and provides some useful insights into the size and nature of that value. The results are of course not definitive – no contingent valuation study can ever be so – but they do strongly indicate a significant vulnerability of export value (through reduction in product quantities likely to be purchased by consumers) in the event of a (hypothetical) degradation of New Zealand's environment.

While the research's approach and findings have been robustly peer reviewed, like all empirical economic estimates, the conclusions rest on assumptions and a specific methodology. That said, the study certainly provides food for thought. Main findings are as follows:

- New Zealand's clean green image does have a value. Environmental image is a substantial driver of the value New Zealand can derive for goods and services in the international market place.
- The study suggests this image is worth at least hundreds of millions, possibly billions, of dollars – aggregating value elements from dairy, tourism, and organic produce, and extrapolating to other sectors such as meat.
- New Zealand is relatively clean and green. This is mainly attributable to our low population density resulting in relatively benign environmental pressures.
- However, there are environmental problems that are sufficient to raise questions about the sustainability of the value of New Zealand's exports attributable to its environmental image. There is a risk that New Zealand will lose value that is created by the current environmental image if we are not vigilant in dealing with the problems that could threaten the image.

If you would like to discuss this report further, please contact Dr Ralph Chapman, Manager of the Strategic Policy Group, Ministry for the Environment, at (04) 917 7444 or email him at ralph.chapman@mfe.govt.nz.

D.1 INBOUND TOURISM

D.1.1 Questions

Screening section

1. Which country have you *last* lived in for 12 months or more?
If Australia, UK, USA, Japan or Korea continue
If Other then thank and end survey
2. And have you been in New Zealand for at least one night, but less than 12 months?
If YES, continue
If NO, thank and end survey
3. [If necessary] Are you aged 15 years or older?
If YES, continue
If NO, thank and end survey
4. Are you currently travelling on official Armed Forces or Diplomatic Corp business, or accompanying someone who is?
If YES, thank and end survey
If NO, continue

Questionnaire

5. Please indicate the country last lived in from Question 1.

Australia

USA

Japan

Korea

6. Which one of these describes your main reason for travelling to New Zealand?

Holiday

Visiting friends and relatives

Education/Study

Business conference

Other (Please specify) _____

Don't know

7. How many days did you stay in New Zealand on this trip?

Framing Section

Consider these images as representing the current overall state of New Zealand's environment. (See attached current images)

Now consider these alternative images (see attached alternative images), which show signs of poor environmental management, such as streambank erosion, poor water quality and air pollution.

Environmental quality is just one of the many things that you might think about when deciding to travel to New Zealand. Your decision to travel to New Zealand may have been based on a number of factors such as airfares, price of accommodation, friends

and relatives living in New Zealand or sports, recreation and business opportunities here.

8. If you thought New Zealand's environment was like the alternative images, would you have still made this trip? (Probe if "Don't know": please just answer this question as best as you can)

NO **YES** **DON'T KNOW**

9. Would these images have made you stay a different number of days in New Zealand? (Probe if "Don't know": please just answer this question as best as you can)

NO **YES** **DON'T KNOW**

10. How many days do you think you would have stayed? (Probe if necessary: please just give your best estimate)

Concluding Section

11. How important were your perceptions of New Zealand's environment in your decision to come here?

Not at all important **Not very important** **Neither/nor**

Important **Very important** **Don't know**

12. From what you have seen of New Zealand's environment during your visit, were the expectations you had prior to your visit met?

NO **YES** **DON'T KNOW**

13. Which of these age groups do you fall into?

15-24 years **25-34 years** **35-44 years**

45-54 years **55-64 years** **65 years +**

14. Interviewer will record the sex of the respondent here.

MALE **FEMALE**

D.1.2 Images depicting New Zealand's current environment

For more detailed descriptions of these photographs, see Table 1.

Figure 1: Current Image 1



Figure 2: Current Image 2



Figure 3: Current Image 3



Figure 4: Current Image 4



Figure 5: Current Image 5



Figure 6: Current Image 5



D.1.3 Images depicting New Zealand under an alternative (degraded) state

Figure 7: Alternative Image 1



Figure 8: Alternative Image 2



Figure 9: Alternative Image 4



Figure 10: Alternative Image 3



Figure 11: Alternative Image 5



Figure 12: Alternative Image 6



Table 1: Descriptions of “current” and “alternative” images in tourism survey

Scenario	Image	Environmental Attribute	Description
Current	1	Land and Water Quality	This image shows evidence of good riparian management, whereby the streambank has been stabilised by proper planting.
Current	2	Land Quality	A typical New Zealand hillside exhibiting signs of good land management. There are no signs of slips or erosions.
Current	3	(Marine) Water Quality	Totaranui Beach, a New Zealand national landmark frequented by tourists. The water quality here is very good.
Current	4	Land and Water Quality	A picture of the Marlborough Sounds, another New Zealand tourist attraction. Both land and water here are of high quality.
Current	5	Air Quality	A picture of Auckland on a clear day.
Current	6	Air Quality	A picture of Christchurch on a clear. Neither this image, nor the one of Auckland shows any signs of air pollution.
Alternative	1	Land and Water Quality	An example of poor land and water management. Inadequate fencing and no planting along the streambanks means that livestock have access to the waterways. This can cause streambank erosion and polluted waterways.
Alternative	2	Land Quality	Inadequate land management on steeper landscapes can cause landslides and slips on hillsides. The hillside in this image shows signs of severe erosion.
Alternative	3	(Marine) Water Quality	A sign warning potential swimmers not to enter the water which is contaminated.
Alternative	4	(Marine) Water Quality	Another sign warning of marine water contamination. This one warns against catching shellfish from the area.
Alternative	5	Air Quality	Christchurch on a day when smog levels are high.
Alternative	6	Air Quality	Another example of Christchurch on a smoggy day.