



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 ORGANICS

1. What organic New Zealand organic products (fresh fruit) do you currently purchase and in what quantity (monthly)?

Table 1: Quantity of New Zealand Organic Fresh Fruit bought

Fruit	Monthly Quantity
Kiwifruit	
Apples	
Other fruits	

2. Currently there are no genetically modified (GM) crops or other products in New Zealand for commercial production. Let's say that some time in the future the following situation arose:

New Zealand allows limited field trials of GM products for research purposes.

If the price of the products listed in Question 1 remained the same, would you buy more, less or the same amount of organic products as you do now? Please indicate the change in percentage.

Table 2: Purchasing behaviour under limited field trials and no price change

Fruit	Monthly Quantity
Kiwifruit	
Apples	
Other fruits	

3. Now consider the same situation described in the previous question, but say that the price of the aforementioned products decreased by 10%, would you buy more, less or the same as you do now? Please indicate the change in percentage.

Table 3: Purchasing behaviour under limited field trials and a 10% price decrease

Fruit	Monthly Quantity
Kiwifruit	
Apples	
Other fruits	

4. Once again, consider the situation where New Zealand allows limited field trials of GM products for research purposes, and assume that the price of the products you listed in Question 1 decreased by 20%. Would you buy more, less or the same as you do now? Please indicate the change in percentage.

Table 4: Purchasing behaviour under limited field trials and a 20% price decrease

Fruit	Monthly Quantity
Kiwifruit	
Apples	

Other fruits	
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5. Now consider another hypothetical scenario. Let's say that some time in the future the following situation arose:

New Zealand allows uncontrolled release of GM products.

6. If the price of products listed in Question 1 remained the same, would you buy more, less or the same as you do now? Please indicate change in percentage.

Table 5: Purchasing behaviour under uncontrolled release and no price change

Fruit	Monthly Quantity
Kiwifruit	
Apples	
Other fruits	

7. Now consider the same situation described above, but say that the price of the products in Question 1 decreased by 10%, would you buy more, less or the same as you do now? Please indicate the change in percentage.

Table 6: Purchasing behaviour under uncontrolled release and a 10% price decrease

Fruit	Monthly Quantity
Kiwifruit	
Apples	
Other fruits	

8. Once again, consider the situation where New Zealand allows uncontrolled release of GM products, and assume that the price of the products in Question One decreased by 20%. Would you buy more, less or the same as you do now? Please indicate the change in percentage.

Table 7: Purchasing behaviour under uncontrolled release and a 20% price decrease

Fruit	Monthly Quantity
Kiwifruit	
Apples	
Other fruits	