



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.

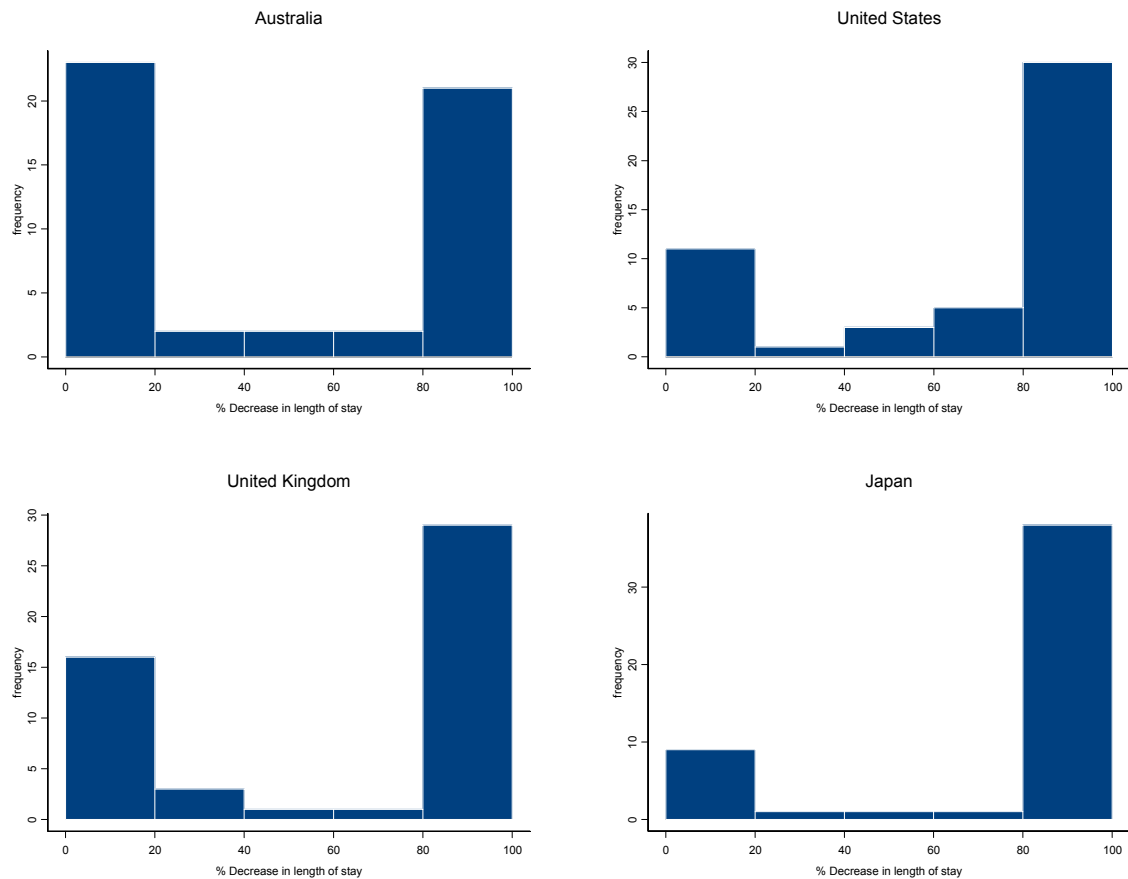
APPENDIX F: EXPLORATORY ANALYSIS OF TOURISM SURVEY RESULTS

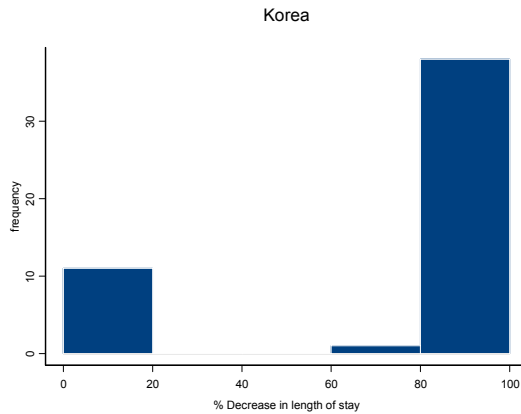
F.1 LENGTH OF STAY UNDER WORSENERD PERCEPTIONS

Table 1: Average % decreases in lengths of stay due to worsened perceptions about New Zealand’s environment

Country	Holiday/ Vacation	Visiting Friends and Relatives	Business	Other	Overall Percentage Decrease in Length of Stay
Australia	68.75	32.70	34	0	48.17
USA	76.04	52.38	25	25	70.0
UK	76.43	23.91	25	100	62.76
Japan	86.36	50	31.25	72.12	79.0
Korea	90	68.75	50	75	77.5

Figure 1: Distribution of % change in length of stay by market





Note that all of these histograms are bimodal with one peak at “no change in length of stay” (change 0%) and the other peak at “Would not make this trip” (change 100%). We could infer that there are two main types of visitors. The first group (denoted by the first peak) represent the group of people who would not change their “purchasing habits” at all in the event of worsened perceptions. The second group (denoted by the second peak) represents the group of people who would NOT visit New Zealand under worsened perceptions.

F.2 PERCEPTIONS OF NEW ZEALAND’S ENVIRONMENT

One of the questions in our survey asked how important the respondent’s perceptions of New Zealand’s environment was in their decision to undertake a trip here. Their response was measured on a scale of 1 to 5 as follows:

- 1 = Not important at all
- 2 = Not very important
- 3 = Neither/nor
- 4 = Important
- 5 = Very important

The boxplots below summarise their responses. Australia was the only market with a median of below 3. This is quite interesting given that Australia had the lowest percentage decrease in number of days stayed. The “perception” scores for Australia are also more widely spread than those of the other markets.

Also note that for the Asian markets (Japan and Korea) the only low scores (1 and 2) are in fact outliers.¹

¹ Outliers are denoted on the boxplot via the isolated lines.

Figure 2: Importance of perceptions

