



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.

4. VALUE CHAIN ANALYSIS

4.1 INTRODUCTION

In this chapter, we look in more detail at the production and distribution of New Zealand's more prominent export products and services. The sectors considered are the tourism and dairy industry and the rapidly growing sector of organic food exports.

The purpose of this phase of the analysis is to identify where in the value chain the environmental value is being created and captured. This, coupled with an assessment of the practicality of undertaking survey work, determines the nature of the empirical survey work required.

The chapter is organised as follows:

- Section 4.2 provides a brief introduction to value chain analysis;
- Sections 4.3 to 4.5 profile in more detail the dairy, tourism and organics sectors (respectively); and
- Section 4.6 develops conclusions as to the precise nature of the survey work scheduled to follow.

4.2 OVERVIEW OF VALUE CHAIN ANALYSIS

Typically, the creation of goods and services involves several steps in the transformation of natural resources to end products sold to the consumer in the market place. During each step, one can observe not only the cost of production (or transformation or distribution) but also the price the (intermediate) product commands. The difference between the selling price and cost has a number of "components", one of which may be a premium attached to the image of the product.

An understanding of these steps in the value chain is important in any strategic analysis as it provides an indication of where along the production and distribution chain the value is being created (and/or captured).

In this particular context, value chain analysis can provide us with some insight as to where along the value chain the development of environmental drivers might be occurring. In technical terms, it can indicate where the "economic rents" associated with brand, image or other means of product differentiation, including those associated with environmental image, are being created.¹ This in turn provides us with some indication about where along the value chain it might be best to target the survey effort.

By way of illustration, Figure 6 provides a (purely hypothetical) view of the value chain associated with the export/production of dairy produce to Taiwan, along with the associated rents. In this (hypothetical) example, the wholesaler is capturing most of the available rent. Thus, in this example, the wholesaler could be a key point of focus when considering the possible impact of environmental drivers.²

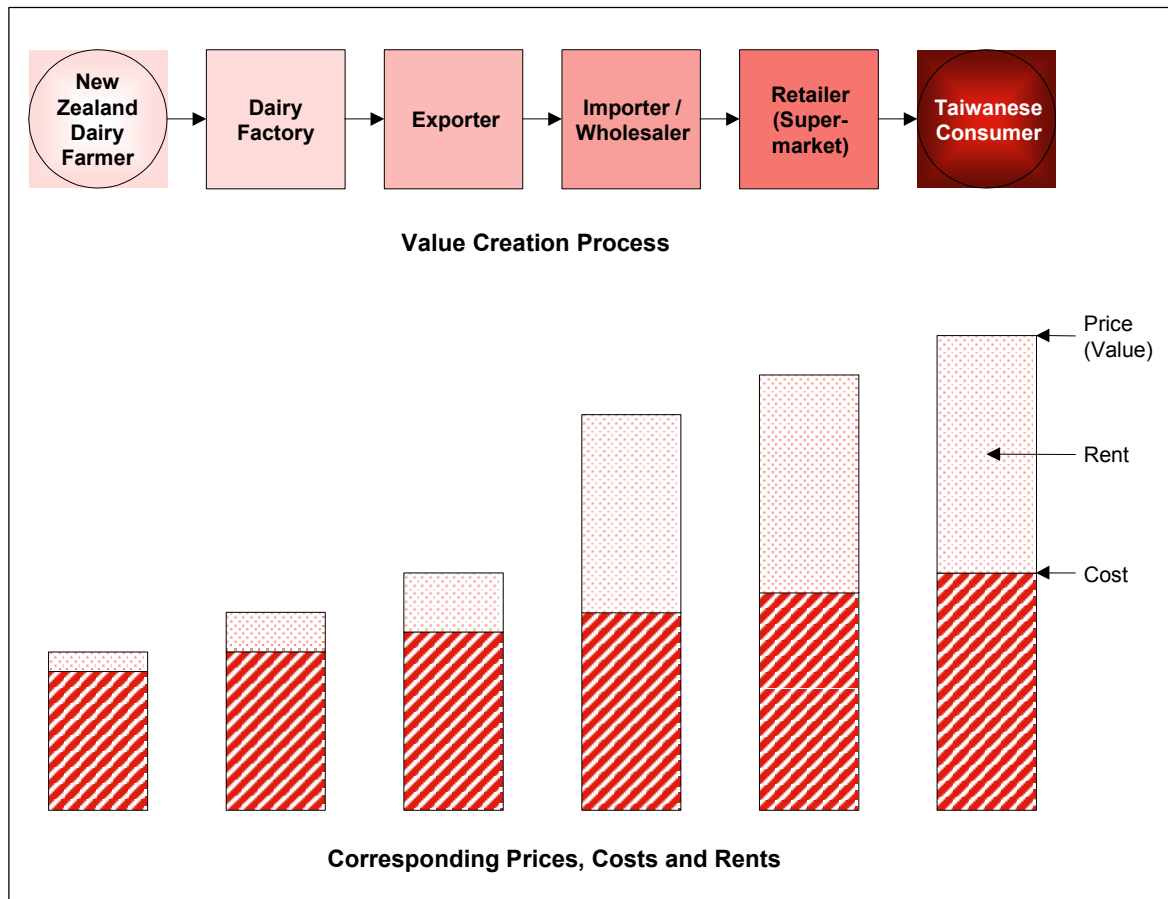
¹ In this sense, a "rent" is defined as the difference between the price obtained for a product and the cost of its production.

² Note, although we believe that this is a useful step to go through, the results of this analysis do need to be interpreted with some care. For instance, although it is quite possible in the example above that the

4. Value Chain Analysis

Value chain analysis can be done to a considerable degree of sophistication and detail and be quite time consuming. However, in this particular context, we restrict the value chain analysis to a qualitative assessment. The purpose of the value chain analysis is to help focus the survey effort rather than it being an end in itself.

Figure 6: Hypothetical illustration of value chain analysis



4.3 DAIRY

4.3.1 Production, distribution and marketing of dairy product

The dairy industry is an integrated industry with farmers owning co-operative processing companies, which in turn own the New Zealand Dairy Board (NZDB). The milk produced by dairy farmers is supplied to their co-operative manufacturing dairy company. These companies are owned by the dairy farmers who supply them. There are currently four companies located throughout the country (New Zealand Dairy Group, Kiwi Co-operative Dairies Ltd., Westland Co-operative and Tatua Co-operative Dairy Co.). Kiwi Co-operative Dairies was merged with Northland Co-operative in 1999.

wholesaler is generating the value associated with the product and that this value is in part driven by environmental image factors, it is also possible that the value is being added further down the value chain and the wholesaler is able to capture the value through market power (e.g. exclusive agreements with the exporter).

4. Value Chain Analysis

On 18 June 2001, the dairy industry's farmer shareholders voted to merge the New Zealand Dairy Group, Kiwi Dairies and the Dairy Board into one dairy company. The legislation necessary to implement that decision is now before Parliament. It is Government's intention that the legislation be passed into law during September. It is expected that the new company will be formally in business by October 2001³.

Although there are four co-operative companies, the New Zealand Dairy Group and Kiwi Co-operative Dairies are responsible for over 95% of production.

More than 90% of the 1.5 million tonnes of dairy produce manufactured each year is sold overseas, making the NZDB the country's largest single exporter and the world's largest dairy export marketing organisation. It has total annual sales of around NZ\$7.7 billion.⁴ The Dairy Board's primary function is to market overseas all dairy products manufactured in New Zealand for export. The Board works with dairy companies to ensure their manufacturing programmes meet the standards of the international marketplace. It also integrates the industry's shipping, packaging, transport, storage, market promotion and quality control needs and provides necessary support services in the form of financial facilities, data processing, livestock improvement and administration.

The dairy companies are responsible for marketing milk and other dairy products on the domestic market, while the NZDB organises marketing in overseas markets. Approximately 40% of the Board's revenues are from consumer products sold under the well known international brands Anchor, Chesdale, Fern, Fernleaf and Anlene, with the remainder from the ingredients business (of which about one third is undifferentiated products and two thirds being customised and speciality products).⁵

The marketing arms of the Dairy Board comprise two strategic business units: NEW ZEALAND MILK and NZMP. The former deals with the marketing of consumer dairy products under the aforementioned brands. The consumer side of the business has its own structure now with a completely separate management organisation based on core product categories. These are Milks, Natural Cheeses, Processed Cheeses and Spreads.

The latter is an ingredients business dealing with cheese products, milk protein ingredients (casein and caseinates), milk powders and cream products. NZMP often deals with corporations such as Nestle and Kraft, to provide them with ingredients such as butter. The table below shows the main products and their respective brands marketed by NEW ZEALAND MILK overseas.

Table 12: Major dairy products marketed overseas and their respective brands

Brand	Product
Anchor	Salted/Unsalted Butter Spreadable Butter Cultured Butter Clarified Butter/Ghee Anchor Milk Powder
Andec	High Calcium Milk Powder

³ New Zealand Dairy Board web-site, www.nzdb.com

⁴ The total sales figure of \$7.7 billion includes sales from the NZDB's joint venture companies such as Cadipro and Soprole in Latin America.

⁵ MAF web-site, www.maf.govt.nz/MAFnet/sectors/dairy

4. Value Chain Analysis

Anlene	Liquid Milk Milk Powder
Annum	Milk powder for pregnant women/new mothers
Chesdale	Processed Cheese Products
Fernleaf	Full Cream Milk Powder Extra Calcium Milk Powder
Mainland	Cheeses Spreadable Butter

The NZDB sold almost 1.5 million tonnes of product in 1999/2000 for a total sales value of NZ\$7.7 billion. NZ\$4.7 billion of this was from the ingredients business and NZ\$3 billion from consumer products.⁶ This includes the production of the NZDB's overseas plants. Principal overseas production and re-packing centres are given in the table below. Note that these also comprise joint venture companies that process dairy product that is not of New Zealand origin.

Table 13: Principal overseas production and repacking centres

Region	Country	Product
Europe	UK (Swindon)	Butter
	Germany (Rellingen)	Ingredients blending
Asia	Malaysia	Milk powder canning, liquid milks and yoghurt
	China	Milk powder in sachets and slice on slice cheese
	Sri Lanka	Milk powder canning, short life milk and yoghurt
	Bangladesh	Milk powder in sachets
	Philippines	Processed cheese and recombined butter
	Saudi Arabia	Milk powder in cans and processed cheese
Africa	Egypt	Butter and ghee packing
Americas	USA (Harrisburg)	Cheese ingredients
	USA (Allerton)	Caseinates
	Jamaica	Processed cheese
	Guatemala	Milk powder in sachets
	Mexico	Recombined cheese
	Venezuela (Cadipro)	Canned milk powder, long life milk, milks and yoghurt
	Chile (Soprole)	Full range of dairy products

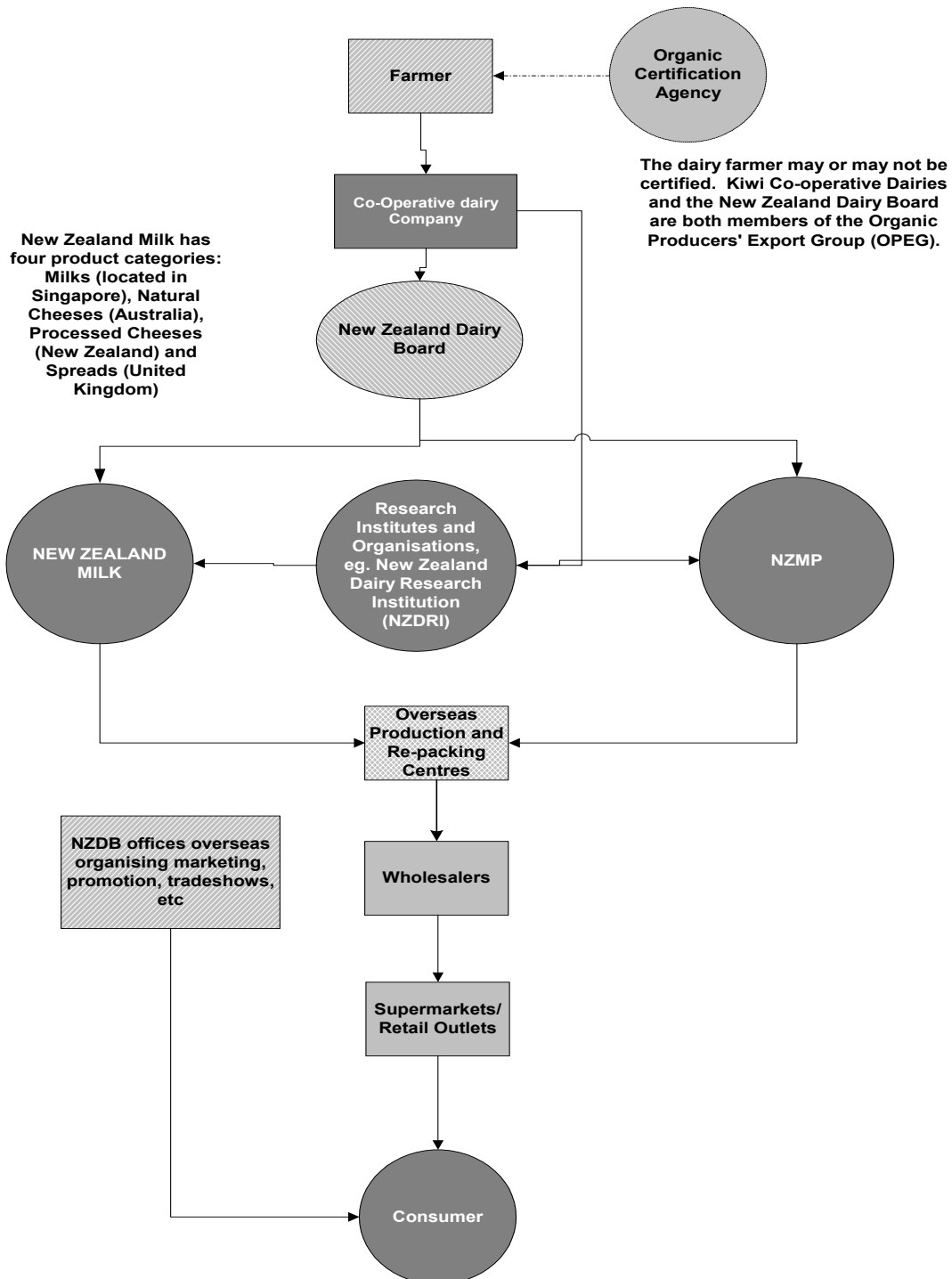
In addition to production and re-packing centres, the Dairy Board also has offices in key overseas markets such as the United Arab Emirates, Bahrain, the USA, Singapore, Australia, the UK and Germany.

⁶ Dairy revenue figures from New Zealand Dairy Board Annual Report 2000.

4. Value Chain Analysis

The figure below is a pictorial representation of the production, processing, marketing and distribution process of New Zealand consumer dairy exports. Note that this process varies with region. For example, in the United Kingdom, the consumer side of the dairy industry, NEW ZEALAND MILK, deals directly with supermarkets such as Sainsbury's. In developing countries, where strong retail structures are absent, the dairy industry deals with wholesalers. In South America, NEW ZEALAND MILK deals with both supermarkets and wholesalers. The diagram below is a generic one, to give us some indication of the process by which a dairy product reaches the end-user from its inception in New Zealand.

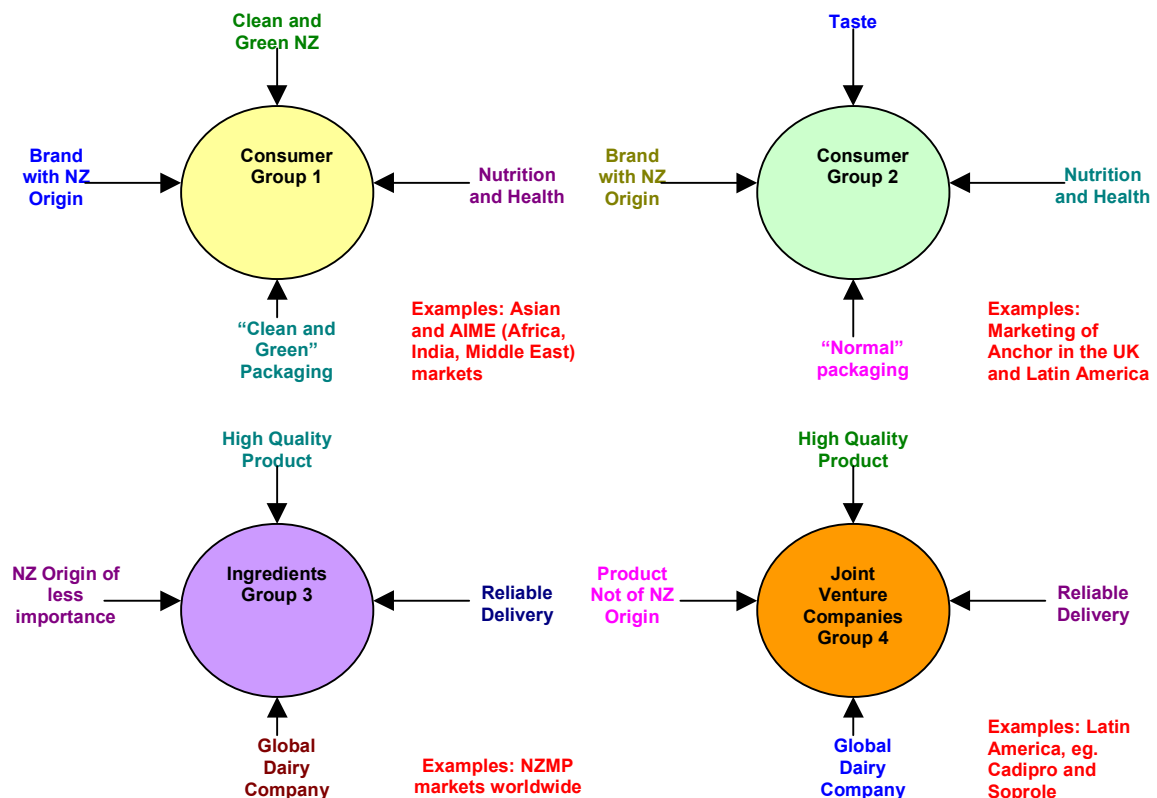
Figure 8: The production, processing, marketing and distribution process of New Zealand dairy exports



4.3.2 Location of environmental value added

In order to determine the location of environmental value added (and thus determine where the survey effort should be directed) it is important to understand the various consumer groups that the New Zealand dairy industry caters to. Figure 9 summarises the four main groups.

Figure 9: Dairy industry consumer groups⁷



The dairy industry derives the most environmental value from the first consumer group, where the clean green marketing strategy is most overt. In Asian markets such as Malaysia, Taiwan and the Philippines, country of origin and environmental image play a crucial role in marketing dairy products. The "Nutrition for Life" range of products are typically branded to emphasise that they hail from "clean green New Zealand" (products are packaged with images of lush New Zealand pastures and streams).

While the clean green marketing strategy was used for the second consumer group in the past to promote New Zealand dairy products, NEW ZEALAND MILK is increasingly moving away from its overt "country of origin" branding in Europe. "Anchorland" is now a commonly used branding strategy in the United Kingdom, whereby consumers associate New Zealand butter with an "imaginary Anchorland" as opposed to New Zealand.⁸ The country of origin does not play as important a role as it does with the first consumer group.

⁷ Consumer grouping data from Andrew Smith, New Zealand Dairy Board.

⁸ Andrew Smith, New Zealand Dairy Board.

4. Value Chain Analysis

The third group comprises NZMP's (the ingredients business) markets. The focus here is more on high quality product delivered on time by an efficient global company. While New Zealand's clean green image may play a role in influencing sales, it is not as important in promoting the product.

The fourth group represents the NZDB's joint venture companies in Latin America, which do not process New Zealand product. This group therefore reaps no value from New Zealand's clean green image.

Given that the first group (comprising the Asian and Africa, India and Middle East (AIME) markets) reaps the most value from "clean and green", it makes sense to target these markets in terms of the survey effort.

The largest product group that the New Zealand dairy industry exports is the milk powder group. Products range from wholemilk powder to skimmilk powders with added calcium. The main destinations for this product group include South America, the Middle East and Asia. Malaysia is the largest single market for milk powders, followed by Taiwan. The strategy of NEW ZEALAND MILK in these markets is founded on exploiting consumer concerns about health and wellbeing, which research has identified as being closely linked with New Zealand dairy products. Part of its strategy was the launch of the "Nutrition for Life" line, which comprises a range of low fat, high calcium milk powders (the brands are ANMUM, ANMUM 2, ANMUM FOLLOW ON, ANLENE, ANDEC, ANLENE GOLD and PROLENE). Most of these products are available throughout Asia (particularly Malaysia, Taiwan, the Philippines and Singapore) and in Latin American markets such as Venezuela. Only Taiwan and Malaysia currently have the full range of "Nutrition for Life" product range.⁹

In analysing the value of New Zealand's clean green image with regard to the dairy sector, the Asian region is of particular importance. This is not only because of the volume of dairy exports destined for Asia, but also because evidence suggests that New Zealand's clean green environment is a definite marketing advantage. For example, in 1999, the Board of Foreign Trade (BOFT) in Taiwan banned a total of 118 products originating from Belgium because of the dioxin contamination scare. This included all imports of milk, eggs, dairy and egg based products, animal feed, animal fat, poultry, livestock products, crackers and chocolate. The NZDB's joint venture partner in Taiwan experienced an increase in trade enquiries due to the incident. An increase in trade enquiries was also experienced in Hong Kong during this incident.¹⁰

While consumers in the European market have become increasingly "food safety conscious", with regard to agricultural methods and hormone treatments on cattle, due to recent food scares, this trend has also been noticeable in New Zealand's Asian markets. In 1999, when New Zealand was considering the use of the hormone recombinant Bovine Growth Hormone (rGBH) – also known as asbovine somatotropin (rBST) – to raise milk production, safe food campaigners across Asia warned against it. They threatened to launch a boycott against New Zealand dairy products if use of the hormone was approved. Incidentally, Europe has banned the hormone, and consequently banned US beef imports.¹¹

⁹ Anonymous (2000), New Zealand Dairy Board: The Facts Part 2, *Dairy Industries International*.

¹⁰ Trade New Zealand web-site, Asia Watch (21 June 1999) www.tradenz.govt.nz/intelligence/news/asiawatch/north/taiwan19990621.html.

¹¹ Asia Times Online (9 June 1999) www.atimes.com/food/AF09Cf01.html.

4. Value Chain Analysis

The dairy survey undertaken within the context of this study targets Malaysian consumers buying New Zealand liquid milk and milk powder in Kuala Lumpur. The Malaysian market was chosen due to its size coupled with NEW ZEALAND MILK's overt use of New Zealand's clean green image as a marketing strategy there. It is the single largest destination for New Zealand dairy products. For the year ended June 2000, milk powder exports to Malaysia were worth almost NZ\$238 million. Total dairy exports to Malaysia were worth NZ\$272 million.¹²

4.4 ORGANICS

4.4.1 Production, distribution and marketing of organic product

The structure of the New Zealand organic industry is complex. Exporters of organic produce comprise not only large organisations such as Zespri International (formerly the Kiwifruit Marketing Board), ENZA (formerly the Apple and Pear Marketing Board) and Heinz-Wattie's Australasia Ltd., but also smaller family owned businesses.

The Organic Products Exporters Group (OPEG) is a network of businesses, research institutions, consultancies and certifying agencies that was formed in 1995 with support from the New Zealand Trade Development Board, (Trade NZ). Members range from New Zealand's largest food companies, such as Heinz Wattie's Australasia, ENZAFruit and Zespri International, to others that are small, family concerns. Together, OPEG members market an impressive variety of products including lamb, beef, poultry, fresh fruit and vegetables, frozen and canned vegetables, honey, dairy products, eggs, grain, baby food, wine, juice, vinegar, flaxseed oil, herbal teas and wool.

In order to ensure the integrity of New Zealand's organic exports, OPEG requires its members' products to carry internationally recognised certification. In New Zealand, the three certifying agencies associated with OPEG are BIO-GRO New Zealand Inc., the Bio Dynamic Farming and Gardening Association and AgriQuality New Zealand Ltd.

While OPEG's focus is to help members sell their products internationally, its activities have a positive spin-off for all New Zealand organic companies, whether or not they intend to export. OPEG supports a vibrant domestic market because it will help develop the experience and infrastructure within the industry necessary for sustainable export growth.

There are two main ways in which New Zealand organic produce is distributed and marketed overseas. Fruit marketing boards such as ENZA and Zespri can either sell directly to a supermarket, or go through a wholesaler or distributor, who in turn sells the produce to the local supermarkets.

The export of organic apples is dominated by ENZA, New Zealand Organics Ltd. and DM Palmer Ltd. These apples are destined for wholesalers and distributors in the United Kingdom, such as Organic Farmfoods, Empire World Trade and Worldwide Fruit. These wholesalers supply the supermarkets. While most supermarkets in the United Kingdom retain the ENZA brand, New Zealand Organics Ltd. and DM Palmer Ltd are required to label their product with the supermarket house brand.¹³ This means that most consumers are unaware of the country of origin when they purchase a New Zealand organic apple. The reason is that their purchase is motivated by the fact that they are purchasing an

¹² Trade New Zealand, Overseas Trade, 2000.

¹³ Greig Taylor, New Zealand Organics Ltd.

4. Value Chain Analysis

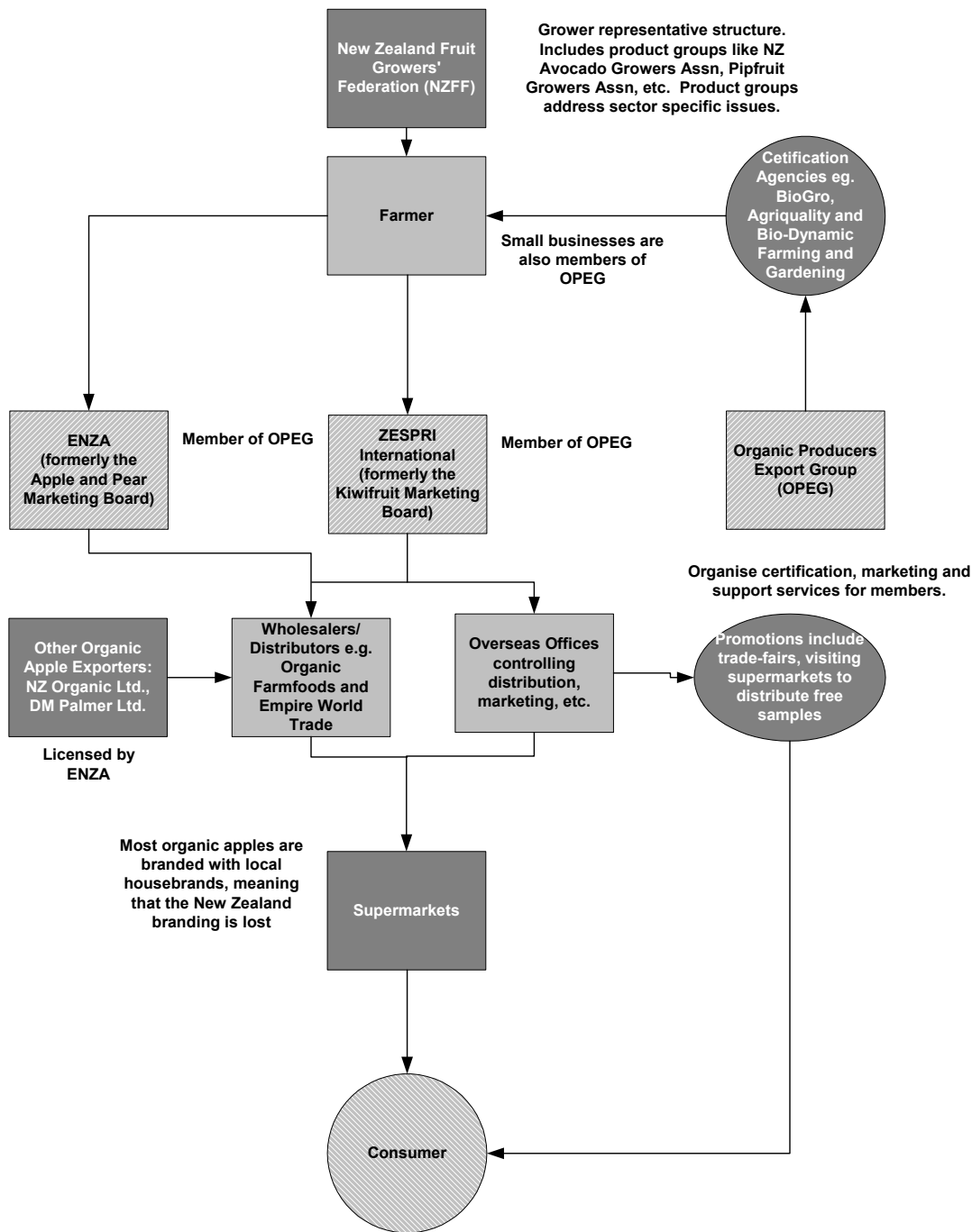
organic product, rather than a product from a “clean green” country. Consumers rely on their supermarkets to select the best organic produce available. Under such a scenario, environmental value is driven by the supermarkets.

Zespri kiwifruit is also distributed in a similar fashion. Figure 11 illustrates the distribution and marketing of New Zealand organic produce. Note that this pertains only to the export of kiwifruit, apples and pears (about 55% of apples are exported as fresh fruit, while 20% is exported as apple juice concentrate).

Farmers certified by Bio-Gro New Zealand Inc. supply fruit to Zespri and ENZA. The two companies not only organise packing and shipping, but also distribution of product to international retailers and wholesalers. Unlike the marketing of the organic apples, however, the produce is branded Zespri and ENZA. Both Zespri and ENZA conduct promotional events in key international markets, via their network of overseas offices. Zespri, for example, conducts road tours in both Europe and North America. The tours take the form of visits to grocery stores and supermarkets and the distribution of free samples of Zespri kiwifruit. Promotional events also include trade fairs, which target retailers and wholesalers.

4. Value Chain Analysis

Figure 11: Marketing and distribution of New Zealand kiwifruit, apples and pears overseas



Note that ENZA and Zespri also supply supermarkets directly.

Other fruits and vegetables are marketed by individual businesses. The Horticulture Export Authority (HEA) is an umbrella organisation for this sector, but does not market or own product.

4.4.2 Location of environmental value added

The most probable location of environmental value in the case of the organic sector is the supermarkets. In a recent debate on the GM issue before the Royal Commission on Genetic Modification, Zespri's Chief Executive, Tony Marks discussed the increasingly significant role that supermarkets in Europe are playing in shaping what products are

4. Value Chain Analysis

made available for consumers.¹⁴ He stated that there is currently a strong move towards amalgamation in the supermarket trade. The British supermarket trade is controlled by five supermarkets, which control 70% of product sold. Similarly, in France, the number one supermarket chain Carrefour took over the second largest supermarket chain, Promodes, and thereby acquired 68% of the French supermarket trade. There have been similar moves towards amalgamation in the United States. The environment that New Zealand exporters are selling into, thus, is one of increasing amalgamation, where relatively few of institutions control the majority of groceries sold on the domestic market.

The presence of major supermarkets is especially significant with regard to the organic food industry. In a publication about the European market for organic vegetables, Frost & Sullivan¹⁵ noted that the presence of major supermarkets is vital in making foods widely available to the public. Marketing support is crucial to stimulate consumer demand by raising public awareness of organic foods. Frost & Sullivan also claimed that in the United Kingdom, the supermarket chain Safeway reported that although only 2% of the fruit and vegetable trade is organic, it accounts for 80% of telephone enquiries. Another British supermarket, Tesco, reported a 500% increase in the sales of organic fruits and vegetables, following a price cut to make them more affordable.

Tony Marks also noted that there is an increasing trend by supermarkets to regard themselves as “gate-keepers” for their consumers. This is coupled with a general distrust amongst consumers, of governments to look after the welfare of consumers. Given the recent outbreaks of food related diseases such as BSE, E. Coli and Listeria in Europe, supermarkets are becoming increasingly risk averse. As a consequence, they impose a series of technical specifications that they require importers to meet on behalf of their customers. The overall impression is that consumers shop at their respective supermarkets because there is an underlying guarantee that the food they purchase is completely safe.

Under such a scenario, if New Zealand’s environment were to degrade to the extent that aspersions were cast on the quality of food exports, supermarkets would almost certainly be the first ones to react by cutting off supply. During his presentation to the Royal Commission on Genetic Modification, Tony Marks recounted an incident involving Dutch pears a couple of years ago. Chemical residue was found in some Dutch pears by a supermarket chain. The supermarket initially thought that it might just affect one or two grower lines. Thereafter, the supermarket discovered that the problem was slightly wider than that, and reacted by simply removing all Dutch pears from the shelves. This response is typical of other supermarkets in Europe also. Supermarkets are not overly sympathetic to the needs of the grower. Given a potential food safety problem, they will simply react by finding alternative sources of supply.

In the case of imported organic products labelled with the supermarket label, environmental value is captured by the retailer. The origin of the product, and hence New Zealand’s clean green image has little role in shaping consumer decision (unless the consumer makes it a point to enquire about the source of the product).

In analysing the organic sector, particular attention needs to be given to the GM issue. Supermarkets in Europe are coming under increasing pressure from both consumers and environmental groups. Environmental groups wield considerable power in the United

¹⁴ Zespri International’s submission on behalf of the Kiwifruit Industry to the Royal Commission on Inquiry into Genetic Modification (30 November 2000).

¹⁵ Frost and Sullivan, Report 3365: The European Market for Organic Vegetables.

4. Value Chain Analysis

Kingdom, in the wake of controversies stemming from BSE and GM food.¹⁶ Supermarkets are thus at pains to appear adamant on their non-GM stance.

In Europe, outbreaks of food scares and the GM issue has fuelled the demand for organic food. While US consumers appear to have confidence in their food safety authorities and foods containing GM components are generally accepted, European consumers do not have the same level of confidence in their authorities following the BSE and dioxin scandals (Economics in Action, 2001). They are generally suspicious of GM foods, and as a consequence large supermarkets are increasingly refusing to stock food which contains GM components.

In assessing the impact New Zealand's clean green image has on the organic sector, it is therefore useful, as a first best strategy, to target the supermarket buyers; they are the ones making the decision to buy New Zealand organic product. However, it is not always practical to approach supermarket buyers; they are typically reluctant to fill out surveys. Furthermore, the "buyer" structure of supermarkets is generally complex, in that there may not be one single individual who only buys organic products. For example, a supermarket may have separate buyers for pipfruit and exotic fruits such as mangoes and kiwifruit. Under such a scenario it would be necessary to ascertain who exactly completes the survey (we may have to approach more than one person in a supermarket), which may become time-consuming.

An alternative to targeting the supermarkets is to focus the survey efforts on the wholesalers and distributors who are also direct customers of ENZA and Zespri. Organic Farmfoods in the UK is the largest distributor of organic fresh produce and is responsible for about 60% of organic fresh produce supply in the country.¹⁷ Another large wholesaler and buyer of New Zealand organic fresh produce is Worldwide Fruit (ENZA's sole distributor in the UK). Wholesalers and distributors would typically anticipate the behaviour of the supermarkets that they supply. That is, if New Zealand's stance on GM caused concern among supermarket buyers to the extent that they cut off all New Zealand organic fresh fruit supply, it would not be in the interests of the wholesalers to continue purchasing New Zealand organic products.

The survey for the organic sector thus targets wholesalers and distributors in the UK. More details on the survey effort are given in Chapter 5.

4.5 INBOUND TOURISM

4.5.1 Production, distribution and marketing of tourism services

The two key tourism organisations in New Zealand are Tourism New Zealand (TNZ) and the Office of Tourism and Sport. The latter is an independent office established alongside the Ministry for Economic Development. Its role is to support the cause of tourism and sport within the government in order to maximise the benefits and opportunities that can be obtained. The office also monitors the outcomes of the work of Tourism New Zealand.

The Tourism Industry Association of New Zealand (TIANZ) represents the interests of the organisations which make up New Zealand's tourism industry. TIANZ provides leadership, guidance and services for the benefit of its members so as to contribute to a viable and sustainable tourism industry. Its role is to be an advocate for its members and

¹⁶ Milmo (2001), Retail Chains Ban Potentially Risky Consumer Items, *Chemical Market Reporter*.

¹⁷ Jon Manhire, Chief Executive Officer, OPEG.

4. Value Chain Analysis

develop industry programmes and quality tourism standards. TIANZ is currently developing the Green Globe 21 certification programme for sustainable tourism. Kaikoura is piloting the Green Globe 21 status for communities in New Zealand. This independently certified programme is similar to company certification, but is based on an interest of community approach. Various tourism companies nation-wide are being encouraged to submit environmental plans (EPs) to be considered for affiliation with the programme.

TNZ is responsible for the co-ordinated marketing and promotion of New Zealand overseas as a tourism destination. Its objective is to ensure that New Zealand is developed and marketed as a tourism destination to maximise the long-term benefits to New Zealand. TNZ works with the tourism industry to develop quality systems, new tourism products and international marketing. TNZ maintains a network of overseas offices located in Sydney, Melbourne, Brisbane, London, Los Angeles, New York, Tokyo, Osaka, Frankfurt, Singapore, Bangkok, Hong Kong, Taipei and Seoul.

As part of promoting and marketing New Zealand overseas, TNZ also organises trade events, via its network of overseas offices. For example, in the month of March 2001, TNZ made presentations at trade fairs in Sweden, China, Singapore, Australia, France, Germany and India. These trade shows are aimed at wholesalers such as travel agencies, to encourage them to actively promote New Zealand as a tourist destination.

Another marketing strategy was the launch of the *100% Pure New Zealand*¹⁸ campaign. TNZ have dedicated a web-site to the campaign. The emphasis is on New Zealand's unique environment and all the benefits that a tourist can potentially reap from it.¹⁹ The web site also lists various travel agencies in different countries, which a tourist could approach, for further information about a trip to New Zealand. Various regions in New Zealand and possible activities tourists can engage in are also provided. Accommodation details are also accessible from the web-site.

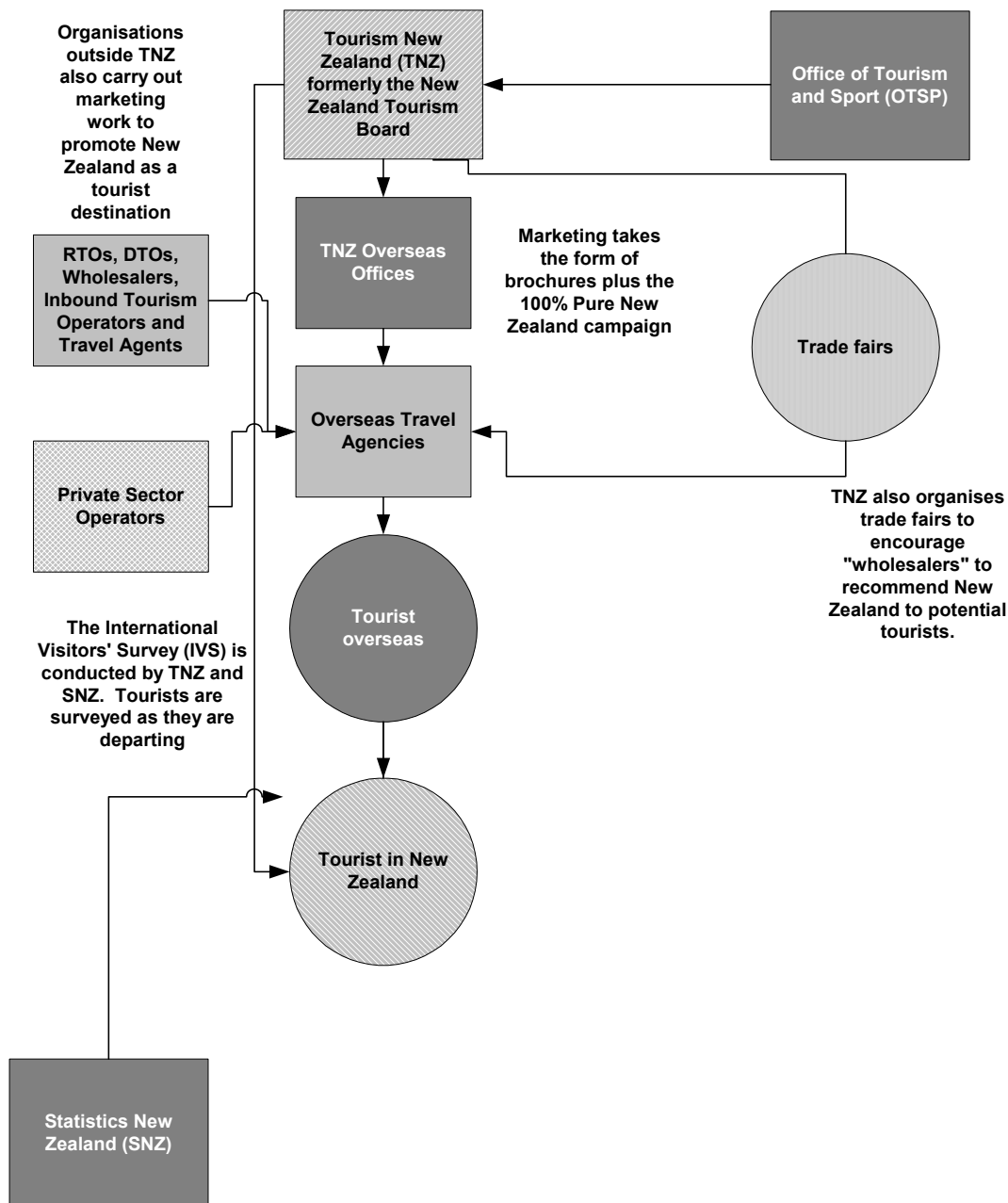
Regional Tourism Organisations (RTOs), District Tourism Operators (DTOs), wholesalers, inbound tourism operators, travel agents and private sector operators are also responsible for international marketing to promote New Zealand as a tourism destination.

Figure 13 illustrates the marketing and distribution of New Zealand tourism services to a potential tourist.

¹⁸ www.purenz.com

¹⁹ TNZ is currently broadening the scope of their marketing campaign by placing more emphasis on New Zealand's landscape, culture and people (source: Malcolm Anderson, TIANZ).

Figure 13: The marketing and distribution of New Zealand tourism services



4.5.2 Location of Environmental Value Added

There are two main ways that a potential tourist can be motivated to visit New Zealand. The first is by word of mouth. For the year ended February 2001, there were 1.824 million visitors to New Zealand.²⁰ With so many visitors, it is undoubtedly the case that tourists who have previously visited New Zealand talk about their experiences in New Zealand, motivating others to choose New Zealand as a destination for their vacation. The second, perhaps more common, way in which a tourist is motivated to visit New Zealand involves promotional work carried out by Tourism New Zealand and other organisations. Environmental value is added at the point where the potential tourist is exposed to promotional material about New Zealand's "clean green" environment (whether it be by

²⁰ TNZ press release, March 2001, www.tourisminfo.govt.nz

4. Value Chain Analysis

word of mouth, or at the moment when they pick up a travel brochure, or visit the *100% Pure New Zealand* website).

The analysis of the tourism sector is more complex than that of the dairy and organic sectors. The tourism sector is quite different from the dairy sector, in terms of the location at which environmental value is added. In the case of inbound tourism, environmental value is largely driven by the end user. While travel agencies can influence a potential tourist's decision to travel to New Zealand to a certain extent, the final decision on whether or not to undertake the journey depends on the tourist. Thus, in the case of inbound tourism, the role of the gatekeeper (in this case the travel agent) is less significant than in the dairy and organic sectors.

Thus, to gain an understanding of the value of New Zealand's clean green image in the tourism sector, it is necessary to target the end user (ie. the tourist) for survey purposes. More details about the survey design for the inbound tourism sector is provided in Chapter 5.

4.6 CONCLUSIONS

The analysis above helps us identify where it would be most appropriate to focus the survey effort. Conclusions are presented below.

4.6.1 The dairy sector

In the dairy sector, the size of the Malaysian market coupled with NEW ZEALAND MILK's "clean green" marketing strategy in Asian markets, suggested the Malaysian market as a particularly interesting market to target. In the Malaysian market, milk powder is New Zealand's main export product. For the year ended June 2000, milk powder exports to Malaysia were worth almost NZ\$238 million. Total dairy exports to Malaysia were worth NZ\$272 million.²¹

Unlike in Europe and the United Kingdom, the Malaysian supermarkets do not appear to exercise a strong "gatekeeping" role. Rather, it is the consumer in Malaysia who is the primary determinant of what products get purchased. As a consequence, in the Malaysian market, it makes most sense to target the consumer (rather than any of the intermediaries).

4.6.2 Organic food exports

With respect to exports of organic produce, the European and UK markets are noteworthy for the growth they are experiencing in the demand for organic product. The UK is currently New Zealand's largest market for organics.

In a number of respects the value chain for organic exports to the UK is quite different from the export of dairy product to Malaysia. As foreshadowed above, in the UK markets, the supermarkets act as "gatekeepers" on behalf of their consumers. Furthermore, in many cases the country of origin is unknown to the consumer. For these reasons it makes more sense to target the intermediaries when considering the impact of a change in New Zealand's environmental image.

²¹ Trade New Zealand web-site, www.tradenz.co.nz

4. Value Chain Analysis

In looking at the intermediaries operating in the supply of organic produce to the UK supermarkets, it is clear that there are two or three wholesale buyers who are in an extremely influential position. In particular, Organic Farmfoods in the UK is the largest distributor of organic fresh produce and is responsible for about 60% of organic fresh produce supply in the country.²² Another large wholesaler and buyer of New Zealand organic fresh produce is Worldwide Fruit (ENZA's sole distributor in the UK).

These wholesalers and distributors can be expected to reflect the demands of the supermarkets they supply. If New Zealand's stance on GM caused concern among supermarket buyers to the extent that they refused to accept New Zealand organic produce, it would not be in the interests of the wholesalers to continue purchasing from New Zealand.

For the reasons outlined above, it was decided that the survey effort in the organics sector should be targeted towards the wholesale suppliers and distributors.

4.6.3 Tourism

In the case of inbound tourism, environmental value appears to be largely driven by the end user. While travel agencies can influence a potential tourist's decision to travel to New Zealand to a certain extent, the final decision on whether or not to undertake the journey depends on the tourist. Thus, in the case of inbound tourism, the role of the gatekeeper (in this case the travel agent) is less significant than in, for example, the European markets for farm produce.

Thus, to gain an understanding of the value of New Zealand's clean green image in the tourism sector, it is necessary to target the end user (i.e. the tourist) for survey purposes. It was decided to target tourists from all of our major tourism markets, namely; Australia, USA, Japan, UK and Korea.

More details on survey design and methodology with respect to all of the sectors are contained in the next chapter.

²² Jon Manhire, Executive Director, OPEG.