

Environmental attitudes and fuel saving behaviour by KEA Campers Customers

Final Report of a Survey (June-November 2008)

Susanne Becken
Jude Wilson

Report No.6



**Lincoln
University**
Te Whare Wānaka o Aoraki

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Land Environment and People Research Report No. 6

December 2008

ISSN 1172-0859 (Print)

ISSN 1172-0891 (Online)

ISBN 978-0-86476-207-8

Lincoln University, Canterbury, New Zealand

Reviewed by:



Susanne Bonnemann

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Series URL: <http://hdl.handle.net/10182/580>

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Acknowledgements

We would like to thank KEA Campers for their cooperation in the 2008 survey and making available the results from the 2007 survey. In particular we like to thank the helpful staff in the Auckland and Christchurch depots who administered the survey on behalf of Lincoln University. This project is funded as part of a three-year project on "Tourism & Oil" (FRST CONC-11755-NMMS-LIN).

Executive Summary

The environmental concern of campervan tourists in New Zealand was analysed in two surveys, 2007 and 2008. The 2008 also investigated tourists' responses to increasing fuel prices and changes they make to their travel behaviour. The 2007 survey was undertaken by KEA Campers and reflects tourists during the summer season. The 2008 survey (carried out by Lincoln University in partnership with KEA Campers) included tourists who travelled in winter and in spring. In addition, 18 interviews were undertaken in October 2008 to provide more depth to the environmental and fuel-related questions. Due to the timing of the surveys the 2007 is dominated by (long-haul) international tourists whereas the 2008 survey includes a large number of New Zealanders and Australians.

Environmental concern differed clearly between different countries of residence, with New Zealanders being less inclined to consider the environment in their travel planning than international visitors. They were also less willing to pay for carbon offsetting of their campervan travel. However, even international tourists surveyed in 2008 were slightly less aware of the environmental impacts of their travel when making their travel plans and were less willing to pay for carbon offsetting compared with those asked in 2007. The willingness to pay for carbon offsetting did not necessarily depend on the level of concern. Tourists were most likely to support alternative energy projects, conservation and tree planting initiatives and highly unlikely to spend money on 'carbon credits'. The interviews highlighted that not all tourists understand the concept of carbon credits and that may also explain the low support of this measure.

Tourists' perception of fuel costs in New Zealand depends on their country of residence. Not surprisingly, American tourists perceive fuel to be expensive, whereas European visitors find it cheap or very cheap. Perception of fuel price does not seem to influence the distance travelled per day. Changes in travel behaviour due to higher fuel costs would most likely manifest in a reduced visitation of restaurants and less money spent on accommodation. Tourists were reluctant to reduce travel distance, although a small number of tourists commented that they might consider shortening itineraries or not travelling by campervan at all. Interestingly, environmental perceptions were not related to how far people travelled or whether they would reduce their travel under high oil price scenarios. This is a very interesting observation and leads to the hypothesis that 'environmental consideration' is quite different from 'actual travel behaviour', and changing behaviour when fuel prices become costly. The discrepancy was underpinned by tourists' comments in the interviews that campervan holidays are about "driving around" and that "coming for a holiday environmental impacts are not the things you think about".

In summary, environmental concern amongst campervan tourists is comparatively high (although less in 2008 than 2007) and tourists are generally willing to contribute financially, for example to offset their carbon emissions. Behavioural changes that reduce in lower emissions are unlikely to occur on a voluntary basis, but higher fuel prices might – at a certain level – lead to changes in behaviour. These would, however, be relatively minor.

Chapter 1

Survey Instruments

In 2007, KEA Campers undertook research into their clients' attitudes towards environmental issues. A one-page survey was distributed when camper vans were returned to the KEA depot in Auckland between December 2007 and March 2008 (from hereon referred to as the '2007 survey'). Altogether 616 surveys were completed. This research was repeated in 2008 with an expanded survey. In addition to asking the same questions on environmental impacts, as were asked in 2007, the updated survey also collected background data on country of residence and trip characteristics and data on fuel usage and attitudes to rising fuel prices. The research began in June 2008 and employed the same survey distribution method at both the Auckland and Christchurch KEA depots. Tourists were asked to complete the survey when returning their vehicle after their trip in New Zealand. This report presents the final results on 1,121 surveys that had been completed up until November 2008.

The 2008 survey was split into three sections (* indicates questions asked in both surveys):

1. Background information – collected data on country of origin*, age*, past visits to New Zealand, length of stay and length of campervan hire and use of the internet.
2. Environmental impacts – asked how much consideration they had given to the environmental impacts of their travel* and if they would be willing to pay to offset carbon emissions*. They were also asked how they would like to see that money used* or, alternatively, if they would be prepared to pay more per day for campervan hire to offset emissions*.
3. Fuel prices – respondents were asked how many kilometres they had travelled in their campervans, how expensive they considered fuel in New Zealand to be, how much they spent on fuel for their campervan and if they would be likely to change any aspects of future trips if prices continue to increase. They were also asked if they had made any adjustment to the current trip because of higher than expected fuel prices.

In addition to the surveys, 18 interviews were undertaken at the Christchurch depot in the last month of the research. The interviews were conducted after tourists had completed the survey and were designed to explore in more depth their answers to the questions on environmental impacts and fuel prices. In the interviews the researcher went through the tourist's survey forms with them, taking additional notes on their responses and attitudes and reasons for these. These interviews took around 10-15 minutes each, with some tourists interviewed individually and some in couples or groups. Altogether, the 18 interviews represented 20 campervan hires and included 20 tourist groups: 10 tourists/couples/groups from Australia, four from the UK, and one each from Germany, Belgium, Denmark, Sweden, Switzerland and Malaysia.

The qualitative interview data is incorporated into this report alongside the quantitative results where appropriate.

Chapter 2 Results

2.1 Description of Respondents

2.1.1 Country of Origin

All respondents were asked in which country they lived (there was a wording change from 2007 when respondents were asked what their country of origin was). Table 1 shows the number and percentage of visitors surveyed according to the coding used in 2007.

A notably higher percentage of New Zealanders (24.3% compared with 5.8%) and Australians (35.1% compared with 6.2%) were surveyed in 2008, along with slightly more visitors from the USA/Canada. All European visitor groups are less well represented in 2008, as are visitors from the UK. German visitors, in particular, are poorly represented in the 2008 sample (only 8.2% of the sample, compared with 26.1% in 2007). In 2007, visitors from Asia were coded as 'other' (this category included Japan, Hong Kong, China along with Israel and South Africa). The separate 'Asia' category, used in 2008, includes visitors from China, Japan, Malaysia, Thailand, Singapore, South Korea, Hong Kong, Indonesia, the Maldives, Philippines, and Bangladesh. In the 2008 'other' category are visitors from New Caledonia, South Africa, UAE, Mexico, Tahiti, Israel, Brazil, and Bermuda.

Table 1
Country of origin (2007) and country of residence (2008) of respondents

Aggregated Region	2007		2008	
	Number	Percentage (%)	Number	Percentage(%)
NZ	36	5.8	272	24.3
AUSTRALIA	38	6.2	393	35.1
UK	120	19.5	121	10.8
USA/CANADA	23	3.7	47	4.2
GERMANY	161	26.1	92	8.2
NETHERLANDS*	69	11.2	127	11.3
SWITZERLAND*	45	7.3		
OTHER EUROPE*	92	14.9		
ASIA	Coded as 'other' in 2007		38	3.4
OTHER	32	5.2	31	2.8
Total	616	100.0	1121	100.0

* Aggregated into 'Other Europe' for the 2008 survey for statistical robustness.

Seasonal variation in the numbers of tourists visiting most probably accounts for the differences in the countries of origin in the two research samples. The 2007 survey was undertaken over the peak summer months only, when the majority of international tourists visit New Zealand. New Zealanders and Australians may take advantage of the quieter season for this type of travel when camping grounds, roads and tourist spots are less busy. Also, in the off-season reduced rental rates are available, more vans are readily available for hire and it is not necessary to arrange hire as much in advance as in the peak season. All of these factors might contribute to the high proportion of New Zealand (and also Australian) customers in 2008.

2.1.2 Age Groups

As Table 2 shows, the majority of respondents in both years of the survey were aged between 26 and 55 years (74.6% in 2007 and 78.0% in 2008). In comparison with 2007, the youngest age group (those aged 18-25) are overrepresented and the two oldest age groups (those aged over 56) are underrepresented in 2008.

Table 2
Age Groups Represented in the 2007 and 2008 Surveys

Age	2007		2008	
	Number	Percentage (%)	Number	Percentage (%)
18-25 years	13	2.1	68	6.1
26-40 years	203	33.0	427	38.1
41-55 years	256	41.6	447	39.9
56-69 years	130	21.1	161	14.4
70+ years	14	2.3	14	1.2
Total	616	100.0	1118	100.0

2.1.3 Previous Visits to NZ

Those who normally lived overseas were asked how many times they had been to New Zealand before and how long their current stay in New Zealand was. Table 3 shows the number of previous visits for the total sample in 2008. The 288 missing data represent 272 New Zealanders (who did not have to answer this question) and other respondents who chose not to answer the question. The largest proportion of tourists was on their first visit to New Zealand (40.1%), although a substantial 10% had visited four times or more before this current visit.

Table 3
Number of previous visits to New Zealand (2008 sample)

Number of previous visits	Frequency	Percentage (%)
0	449	40.1
1	166	14.8
2	91	8.1
3	45	4.0
More than 4 times	81	9.8
Total	833	74.3
Missing	288	25.7
	1,121	100.0

There was some variation in the proportion of tourists who had previously visited New Zealand by nationality (Table 4). Australian tourists had the lowest percentage of first time visitors with 36%, followed by Asia and 'Other' (41.7% and 48.3% of first time visitors). The low proportion of first time visitors amongst Asian tourists amongst campervan tourists differs from the general tourism data available through the IVS (2006), where 81% of Chinese and 64% of Japanese are first time visitors. This may be related to the way the question was asked ('in which country do you live?'), as several of the tourists interviewed at the end of the research who recorded 'Asia' were, in actual fact, European expatriates living in Asia.

Somewhat surprisingly, 71.9% of visitors in this survey from the UK were on their first visit to New Zealand whereas the proportion of first time visitors amongst all UK tourists is 67.1% (IVS, 2006). Perhaps, the hire of a campervan is particularly characteristic of first time visitors from the UK. Most European and North American visitors were on their first trip to New Zealand.

Table 4
Proportion of first time visitors by region of origin (2008 sample)

Aggregated Region	First time visit (%)
Australia	36.0
UK	71.9
USA/Canada	78.7
Germany	75.8
Other Europe	71.5
Asia	41.7
Other	48.3

2.2 Length of stay and campervan hire

2.2.1 Stay in New Zealand

The overall length of stay (for international tourists only) was 21 days (Table 5). Australian, Asian and ‘Other’ tourists stayed for a shorter time than tourists from other regions. These lengths of stay are similar to those reported in the IVS (year ended March 2007). According to 2006 IVS data (the latest available at the time) the average (i.e. mean) stay for Australians was 11.4 days (compared with 16 days in this sample), UK visitors 29.6 days, American visitors 19.5 days, Germans 45.5 days and Japanese/Chinese visitors 18.5 days.

Table 5
Length of Stay in New Zealand for International Tourists in the 2008 Sample

Aggregated Region	N	Mean (days)	Minimum (days)	Maximum (days)
Australia	393	16.3	5	105
UK	120	24.6	6	180
USA/Canada	47	24.5	5	255
Germany	92	32.1	5	365
Other Europe	127	23.1	5	56
Asia	38	18.6	6	180
Other	31	18.8	7	43
Total	848	20.9	5	365

2.2.2 Campervan Rental and Freedom Camping

On average, New Zealanders rented the campervan for 7 days and international tourist for 15 days (Table 6). Most international tourists had rented the campervan for the majority of their trip with 73% of all nights in New Zealand spent with the campervan. On average, 13% of those campervan nights were spent freedom camping by international tourists (that is, not spending the night at some commercial accommodation). The corresponding figure for New Zealanders was 23% of campervan nights spent freedom camping. Comments written on survey forms suggested that, in the case of the New Zealanders surveyed, some of these nights may have been spent at the homes of friends, rather than freedom camping.

Table 6
Number of Campervan Nights and Nights Spent Freedom Camping (2008 sample)

	Origin	N	Mean (nights)
Campervan nights	New Zealander	270	7.00
	International	841	15.27
Free camping nights	New Zealander	270	1.62
	International	843	2.06

2.3 Use of the Internet

In the 2008 survey, respondents were asked if they had connected to the internet whilst travelling in New Zealand. If they had done so they were asked to indicate how often. They were also asked if they would use a wireless internet connection if one was available in their campervan.

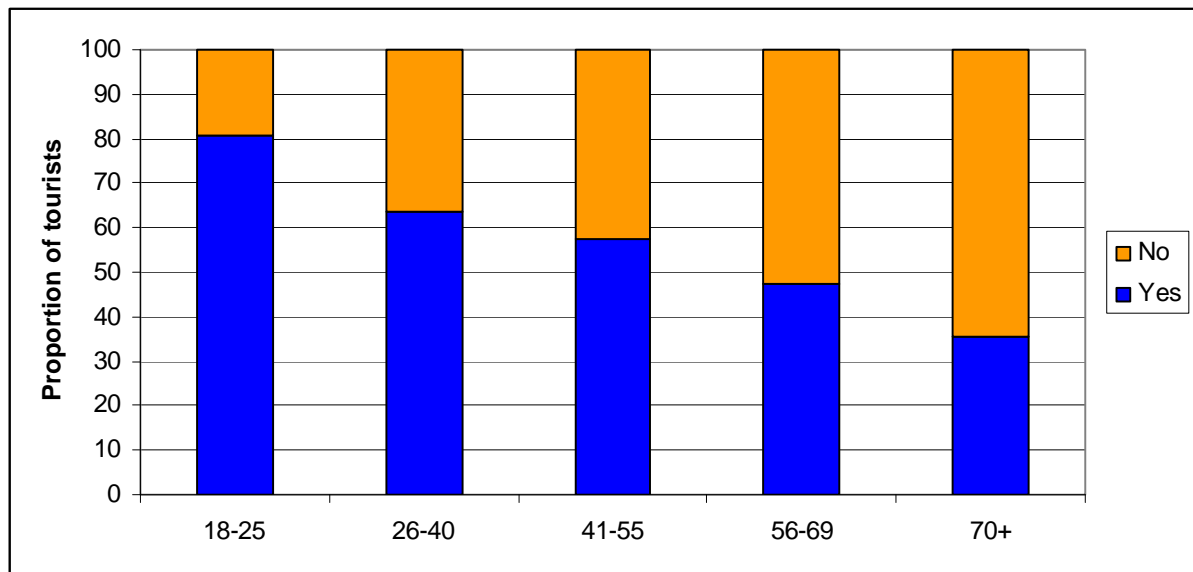
Altogether 662 tourists (59.1%) connected to the Internet during their trip (Table 7), but the proportion was notably smaller for New Zealanders (25.9%) compared with international tourists. Tourists from Europe (85.8%) and the UK (85.1%) connected to the Internet the most.

Table 7
Proportion of Tourists who Connected to the Internet at Least Once by Region of Origin

Aggregated Region	Internet %		Total
	Yes	No	
NZ	25.9	74.1	100.0
Australia	60.6	39.4	100.0
UK	85.1	14.9	100.0
USA/Canada	72.3	27.7	100.0
Germany	76.1	23.9	100.0
Other Europe	85.8	14.2	100.0
Asia	52.6	47.4	100.0
Other	61.3	38.7	100.0
Total	59.1	40.6	100.0

Internet connection was related to age, with younger tourists being much more likely to connect than older tourists: 81% of 18-25 year olds connected at least once to the Internet compared with only 47% of those aged between 56 and 69 (Figure 1).

Figure 1
Number of Tourists Who did or did not Connect to the Internet at Least Once by Age
(2008 sample)



Of those who connected at least once to the Internet the most common frequency was to connect ‘once every few days’ (N= 265, 23.6%). A substantial proportion of 15% connected to the Internet either ‘at least once a day’ or several times a day (Table 8).

Table 8
Number of Times Connected to the Internet for the 2008 Sample

How often...	Number	Percentage (%)
Several times a day	36	3.2
About once a day	135	12.0
Once every few days	265	23.6
Once a week	149	13.3
Once every two weeks	47	4.2
Less than once every two weeks	33	2.9
Did not connect	456	40.7
Total	1121	100

The majority of tourists (63.9%) would use a wireless Internet connection in their campervan if one were provided. A small number of tourists recorded comments like “dependent on price”, “only if computer is included”, or “only for longer stays” alongside this question. Twenty-eight tourists did not answer this question.

2.4 Consideration of Environmental Impacts

Tourists were asked how much consideration they gave to the environmental impact of their travel when planning their trip. The overall environmental concern seemed greater in 2007 with over half of the respondents stating that it was either the most important factor, or that they had researched it and taken it very seriously. By comparison, in 2008 only about 27% of respondents reported that that had given this much consideration to the environmental impacts of their travel. In 2008, 43% of respondents reported that they “thought about it” while almost one third thought about it very little or not at all (Table 9).

Table 9
Consideration Given to the Environment When Planning their Trip in/to New Zealand

Environmental consideration	2007		2008	
	Number (N=613)	Percentage (%)	Number (N= 1,110)*	Percentage (%)
It was the most important factor	103	16.8	78	7.0
We researched it and took it seriously	225	36.7	226	20.2
We did think about it	137	22.3	485	43.3
Very little	101	16.5	232	20.7
None	47	7.7	89	7.9

* Eleven tourists did not answer this question.

The differences between 2007 and 2008 may be partly explained by the different mix of nationalities, especially the greater proportion of New Zealanders and Australians in the 2008 sample. As can be seen in Table 10, environmental concern was somewhat greater amongst international tourists (especially those from Germany) compared with New Zealanders (13.2% indicated that they had not considered the environment at all). However, even the figures for international visitors in 2008 did not match the levels of concern reported in 2007. It is possible that media coverage on environmental issues in countries of origin was much greater in 2007 compared with 2008.

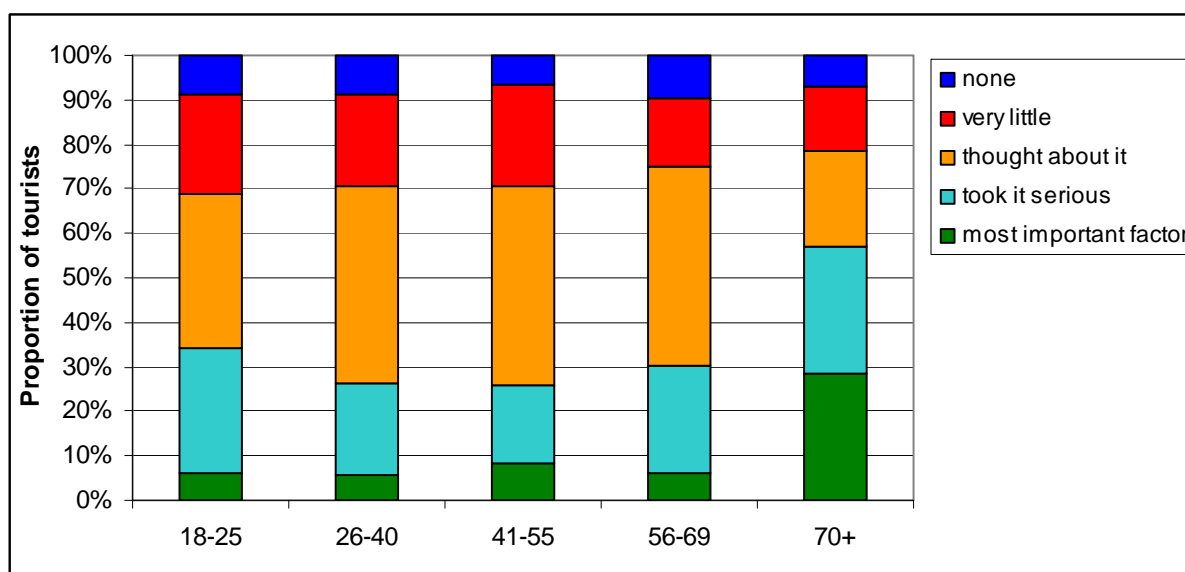
Table 10
Comparison of Environmental Consideration Given by New Zealand Campervan Tourists Compared with International Ones (2008 sample)

Origin	Environmental Consideration (%)				
	most important factor	took it seriously	thought about it	very little	none
NZ	9.4	13.5	41.0	22.9	13.2
Australia	4.9	18.2	47.1	21.7	8.2
UK		13.2	49.6	28.9	8.3
USA/Canada		14.9	55.3	25.5	4.3
Germany	9.8	41.3	33.7	12.0	3.3
Other Europe	9.5	28.6	42.9	15.1	4.0
Asia	18.9	37.8	29.7	10.8	2.7
Other	20.0	26.7	33.3	16.7	3.3

The interview data suggested that there may have been some issues associated with the way this question was interpreted by non-English speakers. A number of Europeans interviewed, for example, indicated that environmental impacts was the “most important factor”, but when questioned further they added that it was their motivation for visiting New Zealand, rather than in respect of the environmental impacts that might result from their travel. It appeared that these tourists confused the word ‘environment’ with ‘nature’. It is possible that some Asian respondents may have also interpreted the question in this way.

The level of concern was somewhat related to age, but not at a statistically significant level. In the 2008 sample there was a tendency that younger tourists took the environment slightly more into consideration in their holiday planning than did some in the older age groups. Tourists aged over 70 years, however, reported the highest concern in relation to the environment being ‘the most important factor’ (Figure 2).

Figure 2
Environmental Consideration of Travel Impacts by Age (2008 sample) (N= 1,118)



2.5 Willingness to Pay

Tourists' willingness to pay for offsetting the carbon emissions from their campervan trip within New Zealand was assessed and they were asked how much they would be prepared to pay. In 2007, a large majority of tourists (62.8%) indicated that they would be prepared to offset their campervan emissions (by making an additional payment), compared with only 43.2% in 2008. More than half of the tourists surveyed in 2008 were not willing to pay for offsetting (Table 11).

Table 11
Willingness to Pay for Carbon Offsetting Campervan Emissions (2007 and 2008)

Willingness to pay	2007		2008	
	Number (N= 616)	Percentage (%)	Number (N= 1,121)*	Percentage (%)
Yes	387	62.8	484	43.2
No	223	36.2	596	53.2
No answer given	6	1.0	41	3.7

The willingness to pay for emissions in 2008 was related to the concern tourists had about the environment when they were planning their trip (Chi square test statistically highly significant). Tourists who took the environment seriously were far more likely to pay for offsetting compared with those who gave the environment no consideration. For example, of those who reported that the environment as the “most important factor” 10% were willing to pay for offsetting compared with 4% who were not (Table 12). However, of those tourists who considered the environment very little, or gave it no consideration, almost one quarter would be prepared to pay for carbon offsetting. This means that ‘not considering’ the environment does not necessarily reflect a lack of willingness to make a financial contribution.

Table 12
Relationship between Consideration of the Environment and Willingness to Pay for Offsetting (2008 sample)

Pay for offsetting	Environmental Consideration (%)				
	most important factor	took it seriously	thought about it	very little	none
Yes	9.7%	26.0%	44.8%	15.7%	3.7%
No	4.4%	15.0%	42.9%	25.7%	12.0%
Total	6.8%	20.0%	43.8%	21.2%	8.3%

Table 13 shows the willingness to pay by age of respondents in 2008. There seems to be a slightly lower willingness to pay in the older age groups, however differences are not statistically significant. The trend shown in Table 13 is contrary to that of increasing environmental consideration shown in Figure 2 above.

Table 13
Willingness to Pay for Carbon Offsetting by Age Groups (2008 sample)
(N= 1,077; 44 tourists did not provide an answer)

Age	Pay (%)	
	Yes	No
18-25	57.6	42.4
26-40	44.9	55.1
41-55	46.3	53.7
56-69	36.6	63.4
70+	30.8	69.2

Country of origin is statistically related to the willingness to pay. Less than one third of New Zealanders (26.0%) surveyed in 2008 were willing to pay for offsetting their campervan emissions, compared with over half of the international tourists surveyed (50.9%). Visitors from the USA/Canada and Australia were least likely to pay amongst all international visitors (43.2% and 44.7%, respectively), whereas tourists from Asia (65.7%), Germany (63.3%), and other European countries were most likely to pay (57.4%). The difference is statistically highly significant.

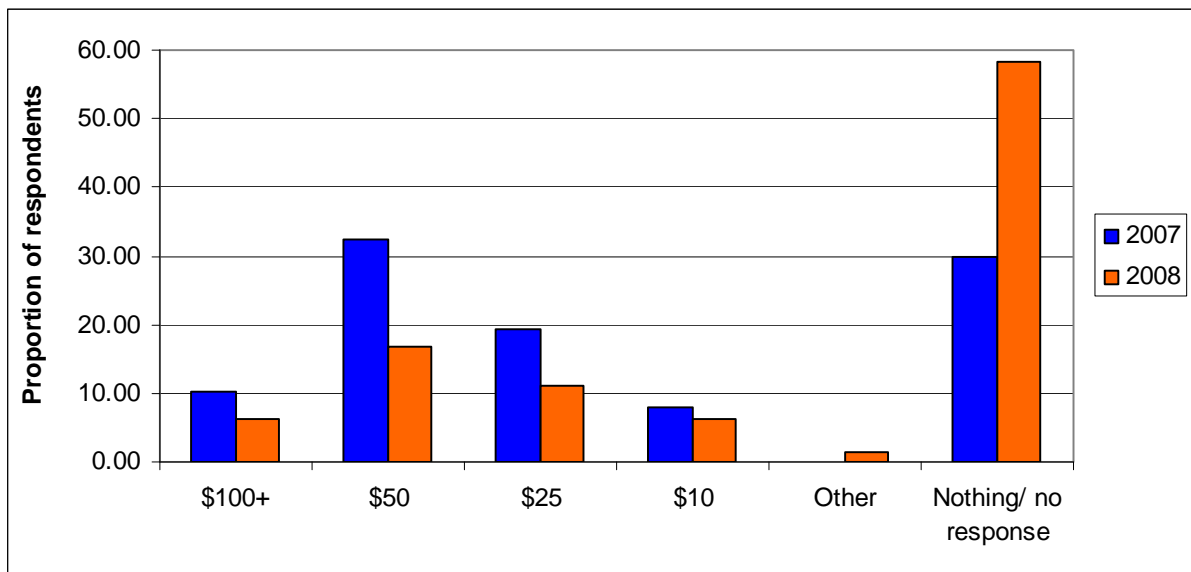
Table 14 Willingness to pay for carbon offsetting by region of origin (2008 sample)
(N= 1080; 41 tourists did not provide an answer)

Aggregated Region	Pay (%)	
	Yes	No
New Zealand	26.0	74.0
Australia	44.7	55.3
UK	52.5	47.5
USA/Canada	43.2	56.8
Germany	63.3	36.7
Other Europe	57.4	42.6
Asia	65.7	34.3
Other	51.9	48.1

2.5.1 Amount Paid for Offsetting

Of all respondents in the 2008 sample, 468 indicated how much they would be prepared to pay for offsetting. The most common amount given was \$50 (Figure 3). This was the same as in 2007, although the proportion of tourists who indicated they would pay \$50 in 2007 was over 30% compared with only 17% in 2008. The second most common amount that respondents were prepared to pay in both years was \$25, again with a higher proportion prepared to pay this amount in 2007. In 2008 only a small number of tourists (6.2%) responded that would be prepared to pay \$100 or more for carbon offsetting of their campervan emissions.

Figure 3
Percentage of tourists who would pay a certain amount for offsetting
Comparison of 2007 and 2008 data (the option of ‘paying nothing’ was given in 2007; in 2008 a non-response was interpreted as ‘paying nothing’).



Out of those tourists who would pay for carbon offsetting, tourists from Asia, European countries (excluding Germany) and the USA/Canada were the most likely to pay \$100. German tourists were most likely to pay \$50 (50.9%) (Table 15). Tourists from New Zealand, Australia and the UK were the least likely to pay \$100. New Zealanders were the most likely to pay \$10 for carbon offsetting.

Table 15
Amount Prepared to Pay for Carbon Offsetting by Region of Origin (2008 sample)

Aggregated Region	Amount (%)				
	\$100	\$50	\$25	\$10	Other
New Zealand	3.1	40.6	28.1	26.6	1.6
Australia	12.7	40.4	28.3	14.5	4.2
UK	13.1	42.6	29.5	9.8	4.9
USA/Canada	21.1	36.8	15.8	15.8	10.5
Germany	14.5	50.9	23.6	10.9	0
Other Europe	26.1	34.8	26.1	11.6	1.4
Asia	33.3	33.3	19.0	14.3	
Other	15.4	30.8	23.1	15.4	15.4

2.5.2 Use of Offsetting Money

Tourists were asked how they would like to see the money from carbon offsetting to be used (Table 16). Multiple responses were possible and some respondents who had indicated that they would not pay answered this question. In 2008, 604 (53.9%) respondents answered the question. In 2007, the most popular option was for alternative energy generation (38.1%) while in 2008 the most popular option was for conservation projects (23.3%). In 2008 however, a very similar percent selected alternative energy generation (23.2%). In 2007, the second most popular choice was for the money to be spent on tree-planting projects, followed by conservation projects. In 2008 tree-planting projects was the third most popular selection (18.4%). In both 2007 and 2008, tourists were least willing to put their money towards buying carbon credits. This indicated that tourists may either be sceptical of carbon credits or were not aware of how carbon offsetting works. Usually, the purchase of carbon credits goes towards renewable energy projects or forest carbon sinks. The interviews provided an opportunity to investigate this further.

Table 16
Tourists' Support of How Offsetting Money Should Be Used

Use of offsetting money	2007		2008	
	Yes: support (N= 536)	Percentage of total sample (N= 616) (%)	Yes: support (N= 604)	Percentage of total sample (N= 1121) (%)
Tree-planting projects	145	23.5	206	18.4
Conservation projects	134	21.7	261	23.3
Alternative energy generation	235	38.1	261	23.2
The purchase of Carbon Credits	20	3.2	21	1.9
Other	2	0.3	9	0.8

The interviews indicated that most of those who spoke English as their first language were aware of how carbon credits worked, but were sceptical of both the extent of environmental impacts and the benefits of off setting. A number of comments were made with regard to media spin which often presents diverse opinions on impacts. Many of those interviewed also talked about how they adapted their behaviour at home in order to reduce their environmental footprint (recycling, taking public transport) and that they carried on some of those routines whilst on holiday in New Zealand. For many holiday practices, however, they simply did not consider their environmental impacts. This was especially the case with regard to driving holidays (such as taken in a campervan) which reflected a holiday style choice rather than simply the means of travel. Overall, price was a far greater determinant of behaviour than was broader environmental considerations.

Those interviewed were also highly sceptical of how off setting money would be spent, especially if it was collected by governments or through general taxation levies. Associated with this was consideration of whose responsibility environmental mitigation was. Interviewees' responses varied considerably, with some stating that it was a governmental responsibility, others that it was an individual's one and some that it was everyone's responsibility to take care of the environment. One tourist from the UK commented that it was "an international problem which was difficult to deal with on a national level". There was, however, a more general consensus across all interviewees that mitigation processes (and how money was spent) needed to be transparent.

A number of people interviewed did not speak English as a first language and, as noted earlier, it appeared that often the questions were interpreted wrongly. Overall, awareness of environmental impacts was strongly related to what material appeared in the media in tourist's

home countries. One couple interviewed, who lived in Malaysia, for example, commented on the media coverage of problems associated with open burning in that country. For European tourists this emphasis was on the impacts of car emissions and on the use of fuel efficient vehicles, which many considered they had selected in their campervan choice. In the UK, media cover was on emissions from driving, and while those interviewed noted that they had changed their driving habits at home, they were not prepared to compromise whilst on a driving holiday. Several Australian tourists also noted that driving distances in New Zealand were much less than in Australia and that recycling was better.

There are differences between the countries of origin in terms of how the money from offsetting should be used (Table 17). Tourists who did not respond to this question were treated as if they were not supporting any of the options. When measured against the sample size of each region of origin, tourists from Germany showed the highest support in general. About one third of Germans supported tree planting, conservation projects and alternative energy sources. Support for renewable energy sources was very high amongst North American visitors (38% of the 47 tourists surveyed). New Zealanders were only moderately supportive of any of the measures. Carbon credits were the least supported measure by all origins. The differences between the regions of origin are not statistically significant.

The interview data suggested that tourist’s preferences for how off-setting money might be used was often based on their own personal interests and concerns. One Australian tourist, for example, chose conservation projects because they “were very much into wildlife”. A British tourist also selected conservation projects because they were an “animal person”. A Danish tourist noted that they had selected alternative energy generation because there were a lot of windmills in Denmark.

Table 17
Support of different compensation measures by region of origin
(2008 sample, N= 1121)

Aggregated Region	Tree planting (%)	Conservation project (%)	Alternative energy (%)	Carbon Credit (%)
NZ	18	16	15	1
Australia	16	24	23	3
UK	18	31	21	2
USA/Canada	11	15	38	0
Germany	29	28	33	2
Other Europe	23	13	26	0
Asia	18	16	15	1
Other	16	24	23	3

2.5.3 Supporting a Carbon Neutral KEA Camper Company

Tourists were asked if KEA Campers was certified ‘Carbon Neutral’ (“so the carbon emissions from your trip were offset by KEA Campers”), would they be willing to pay a little more per day for your hire? Both in 2007 and 2008, the support for KEA certification was high, albeit higher in 2007 at 80% compared with only 55% in 2008.

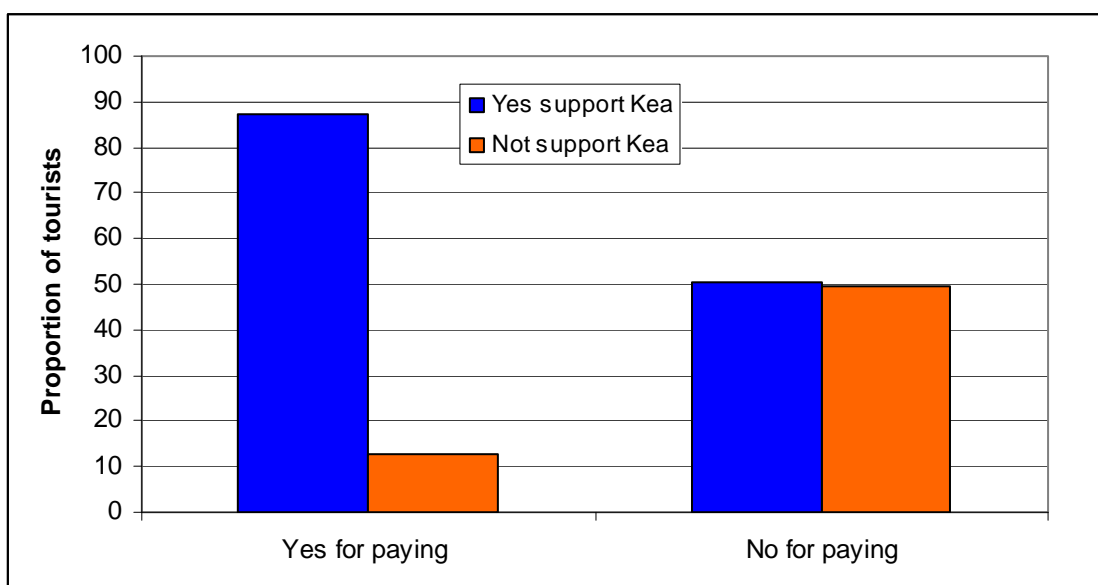
Table 18
Tourists' support of KEA Campers offsetting their carbon emissions

	2007		2008	
	Number (N= 616)	Percentage (%)	Number (N= 1121)	Percentage (%)
Yes	490	79.5	615	54.9
No	111	18.2	268	23.9
No answer given	15	2.3	238	21.2

There was a clear relationship between picking the alternative measure (i.e. KEA offsetting emissions) and willingness to pay in general. Of all tourists who indicated a willingness to pay for offsetting, 87% would also pay a little more for their campervan hire if it was carbon offset (Figure 4). Interestingly, 13% would not support such a measure by KEA Campers, even though they indicated their willingness to pay at a general level. This indicates that these tourists may prefer to make their own choices, maybe because they can chose the project where the money goes to or because it is less committing (i.e. there is an option of not paying in the end). In the interviews some respondents indicated that they would be happier to pay KEA as they trusted a company to be more transparent, than the larger entity of a government, in terms of how the money would be spent. Very few of the tourists interviewed, however, had looked at any details on the KEA website that described their environmental performance as a company. Tourists did comment, however, that the campervans used by KEA were a recognised brand and were newer than those of other companies. This played a small part in their decision to hire from KEA. The most common reason given for picking KEA was that they were recommended (by either travel agents or by friends) or that KEA offered good economical packages. In the interviews tourist also mentioned the environmental initiatives put in place by KEA such as a reusable shopping bag, recycling facilities and biodegradable detergents.

Interestingly, of those tourists who were generally not willing to pay, 50% would still support a KEA initiative by spending a little more per day for their hire campervan. The reasons for this could be manifold, maybe because it is easier for the tourist and they do not have to make their own choices, maybe because they would like to support KEA in a good cause, or possibly there is an unknown interview bias in that tourists did not want to offend KEA in this question.

Figure 4
Percentage of tourists willing to support a carbon neutral KEA Campers, in relation to their general willingness to pay for offsetting
(2008 sample, N= 883; 230 tourists did not answer this question)



2.6 Fuel Prices and Travel Behaviour

2.6.1 Travel distance

In the 2008 survey, tourists were asked how many kilometres (km) they travelled with their campervan. The figure was verified by KEA staff and where necessary corrected (unfortunately KEA staff did not appear to check the distance for 81 tourists out of the 1121, and for these tourists the distance provided is accepted without verification). Distances travelled are available for 1,102 tourists.

The average distance travelled was 2,429 km with a maximum of 9,089 km. The average daily travel distance was derived by dividing total km by the number of campervan days. For tourists on a very short visit this is not totally reflective of distance per day, as a tourist who drove 800 km in total and stayed away for one night (i.e. 800/1) is allocated “800 km/day” when it really relates to distance per night. For tourists who stay longer or pick up their campervan in the evening the measure is more meaningful. The average travel distance ‘per day’ was 203 km (with a median of 188 km).

Travel distance varied significantly between the different countries of origin. Tourists from Germany travelled the greatest distances in total (3,678 km), whereas New Zealanders travelled the least during their campervan hire (1,422 km). On a daily basis, however, New Zealanders travelled most per day (229 km), followed by Asian and North American tourists (Table 19).

Table 19
Travel Distance by Region of Origin
(2008 sample) (N= 1121)

Aggregated Region	Mean total (km)	Mean daily travel (km/ day)
NZ	1,422	229
Australia	2,392	190
UK	2,846	181
USA/Canada	2,397	215
Germany	3,678	196
Other Europe	3,511	211
Asia	2,170	218
Other	2,280	179
Total	2,429	203

A strong relationship between distance travelled and length of campervan hire was found. The longer people stay the shorter distance they travel per day, i.e. travel distance per day decreases with longer stays. The relationship is statistically significant with an R-Square value in a simple linear regression of $r^2=0.694$.

2.6.2 Perception of Fuel Prices

In 2008, tourists were asked to compare the fuel prices in New Zealand with those in their home country. Twenty-seven percent of tourists thought they were about the same, whereas 13% thought they were expensive or very expensive. New Zealanders did not have to answer this question (Figure 5).

Figure 5
Perception of Fuel Prices in New Zealand (N= 1121)

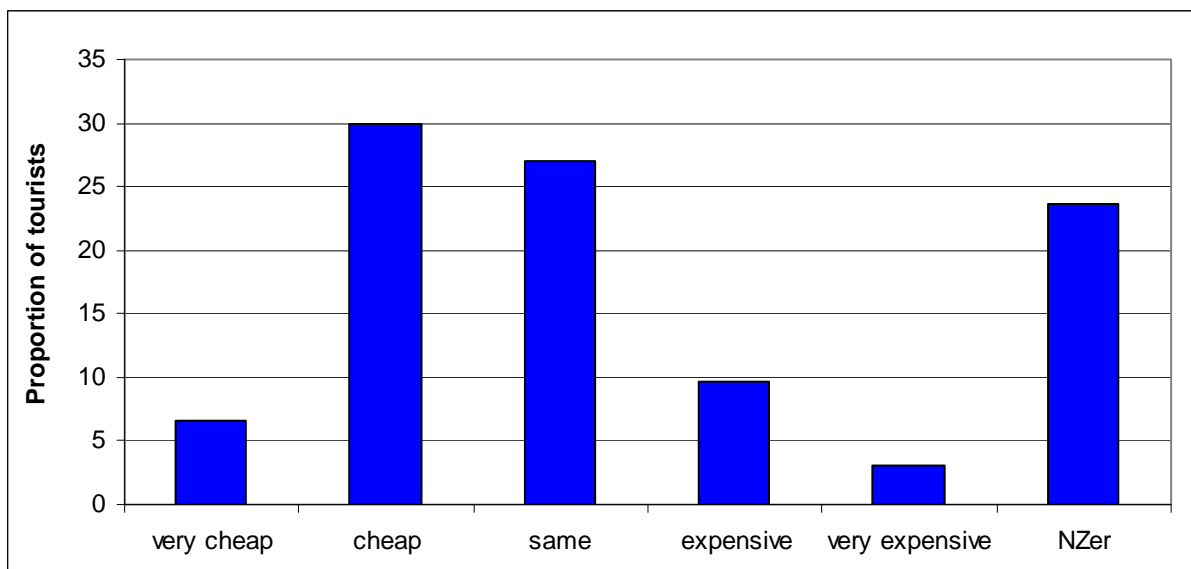


Table 20 provides more detail on which tourists, according to origin, perceived fuel to be cheap or expensive in New Zealand. Australians generally considered fuel to be the same price (or expensive), although many Australians commented that petrol was more expensive, whereas diesel was cheaper. Europeans and visitors from the UK generally found fuel in New

Zealand to be cheap or very cheap. Tourists from North America perceived fuel to be expensive or very expensive as did visitors from Asia.

Table 20
Perception of Fuel Price in New Zealand, by Region of Origin for International Tourists

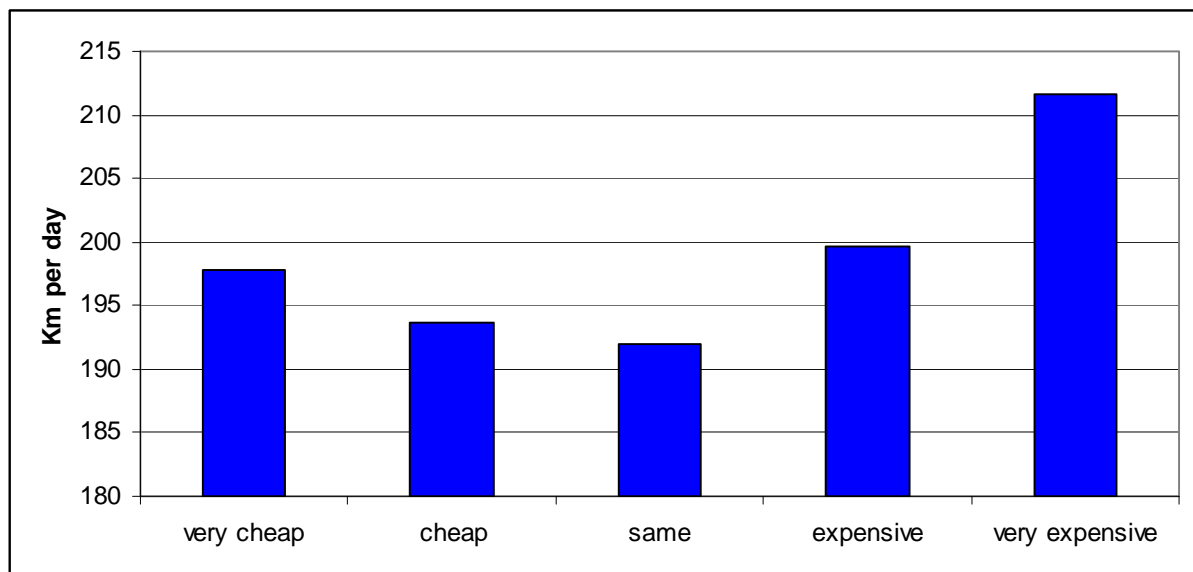
Region	Price of fuel compared to home country (%)				
	very cheap	cheap	same	expensive	very expensive
Australia	1.0	23.2	54.6	15.9	5.0
UK	23.1	64.5	11.6	.8	
USA/Canada	2.1	4.3	36.2	40.4	17.0
Germany	26.7	60.0	10.0	3.3	
Other Europe	9.5	71.4	15.1	3.2	.8
Asia	2.8	19.4	38.9	27.8	11.1
Other	6.9	27.6	41.4	20.7	3.4

2.6.3 Travel Distance and Fuel Price Perception

It is possible that the distance travelled per day is related to how cheap or expensive fuel is perceived. Figure 6 shows that while the average (mean) travel distance varies substantially (in fact statistically significantly between groups) it does not seem to be systematically related to the perception of fuel price.

Tourists who find petrol very expensive drive the most (over 212 km per day), whereas those who perceive it to be about the same drive the least (198 km per day). This indicates that there are underlying variables (such as origin or length of stay) that explain both the difference in fuel price perception and in travel distance per day. It can be concluded, however, that whether fuel is perceived as expensive or cheap is not a strong driver in its own right for people to travel less.

Figure 6
Mean Travel Distance per day in Relation to Perception of Fuel Prices
(2008 sample)



2.6.4 Responses to Fuel Prices

Half of the tourists (50.2%) surveyed reported that they kept an account/record of how much they spent on fuel in their campervan. Tourists were also asked how much they spent on fuel during their trip. The average spending in total was \$469 per trip (the median was \$420 and the maximum spend on fuel was \$1,800). Calculated on a daily basis (i.e. based on rental campervan days), reported fuel spending was on average \$44 and was 22 cents per driven kilometre.

This spending on fuel represents a substantial portion of tourist spending, especially when considered as an extra to the money spent for vehicle hire. German tourists, for example, spend, per person, an average of \$638 on food/meals and only \$379 on attractions while in New Zealand. Australian tourists spend \$372 on food/meals and \$291 on sightseeing /attractions.

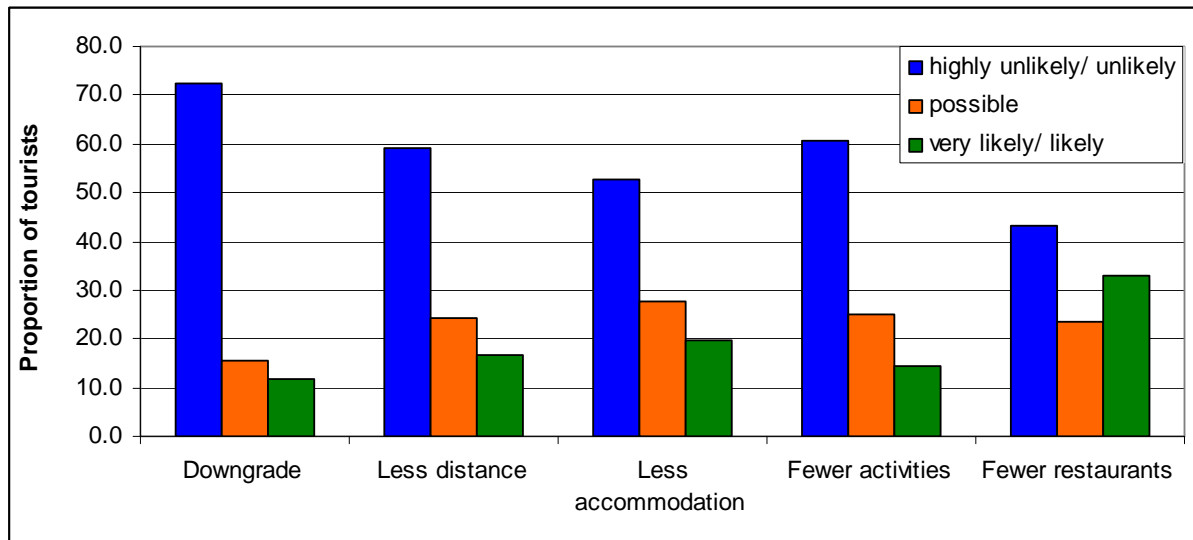
At the beginning of the research, fuel prices in New Zealand (and globally) were higher than what had been the norm and had been increasing on a regular basis over the previous months. Because of these rising prices, tourists were also asked what changes, if any, they would be likely to make to their holidays if fuel prices continue to increase (Table 21).

Table 21
Likelihood of Changes Made in Response to Higher Fuel Prices
(not all tourists responded to each option, sample sizes are provided in the table and percentages relate to these)

Possible changes	Likelihood of changes to holiday (%)				
	Highly unlikely	Unlikely	Possible	Likely	Very likely
Downgrade to a smaller campervan (N= 948)	48.9	23.5	15.7	6.9	5.0
Travel less distance (N= 963)	32.0	27.2	24.3	11.0	5.5
Spend less on accommodation (N= 926)	24.6	28.1	27.5	13.6	6.2
Spend less on activities(N= 963)	27.1	33.4	24.9	9.9	4.6
Spend less on restaurants (N= 935)	22.6	20.7	23.6	17.4	15.6

The most likely changes would be to spend less on restaurants, followed by spending less on accommodation. The highest percentage of responses to 'highly unlikely/ unlikely' changes was for downgrading to a smaller campervan (72.5%), fewer activities (60.6%) and travelling less distance (59.2%) (Figure 7).

Figure 7
Proportion of Tourists Who Would Change Major Components of their Trip Due to Fuel Prices.



The interview data added some insight into the responses given to this question. The reluctance to change some aspects of holidays was, in some cases, related to the size and nature of the travelling parties. For example, those travelling with young children did not consider downsizing their campervan to be a viable option as only larger campervans are able to be fitted with a baby seat. Some of those interviewed who were travelling with young children also commented that the only way to reduce accommodation costs would be to freedom camp, which was not considered a safe option in respect of child supervision. Often, travelling with small children was also a deterrent to driving long distances each day.

Other tourists interviewed reported either not eating out, or having spent very little on restaurants anyway, making this a less viable option for saving money whilst on holiday. Most of those interviewed had not considered the price of fuel when booking their holidays and were prepared to spend “whatever it cost”, to “still do trip, no matter what the price” or considered “fuel a small part of the whole trip cost”.

Tourists also provided comments on what other changes they might make in response to higher fuel prices. Altogether, 288 tourists (26%) provided some additional comment. Of these, however, 145 respondents merely reiterated that they would make no other changes. The other comments were coded into four groups: take either no holiday or not a long haul one, or take a shorter holiday (38 comments); change behaviour within the holiday itself (69 comments); response not possible because any change is beyond personal control (17 comments); make changes to lifestyle that were not necessarily related to holidays or change the spending balance within their holiday (19 comments).

The comments made with regard to changing aspects of the holiday itself could be further coded into:

- changing the type of vehicle used (‘possibly not use a camper’, ‘travelling by bus’, ‘travel on bus or trains’, ‘reconsider using a campervan’, ‘probably just use a smaller, less deluxe van instead’);
- changing driving behaviour (‘drive carefully’, drive more slowly/efficiently’, ‘less touring’, possibly drive less distance’);

- change general holiday behaviour (local based holiday in one place rather than vehicle van touring’, ‘choose a single site holiday’, spend more nights and days at one place’, more hiking and free camping’).

Comments relating to fuel prices being beyond personal control included: ‘remove government tax on fuel’; vote for a different government and make biofuel’; ‘petition government to reduce tax’; and, ‘[send] letters of protest to the oil companies’.

Changes to lifestyle or holiday included comments primarily relating to money and included ‘save more’, opt to find a cheaper rate of campervan rental’, save more for travelling’.

2.6.5 Changes to this holiday

Only 31 (or 3%) of respondents reported that they made specific changes during this holiday due to high fuel prices. However, 48 tourists provided some additional comment on their current trip and changes/considerations they did make. These changes included:

- Driving less distance (19 comments), ‘less side trips’, ‘only one island’, ‘short cuts/no detours’. One person ‘would have left their van in Queenstown or Wanaka if there had been a depot there’.
- Changes relating to money (10 comments), ‘had expected to spend heaps on fuel – just part of the holiday’, ‘it’s still way cheaper here than in the UK’, ‘no changes made due to research beforehand – fuel was high priority in budget’, ‘saved more money’.
- Fewer activities (2 comments), ‘cancelled the glow worm caves’, and ‘[did] less activities and no restaurant outings’.
- Used other type of transport (4 comments), ‘took the bus into Wellington instead of taking the van’, and ‘hired a car for two days in Wanaka’.
- Two tourists commented that they selected their campervan specifically because of its environmental or economical performance.
- Of the final 11 comments, 9 were a reiteration of the tourist making no changes. The other two were not coded as they were general comments about the tourist holidays.

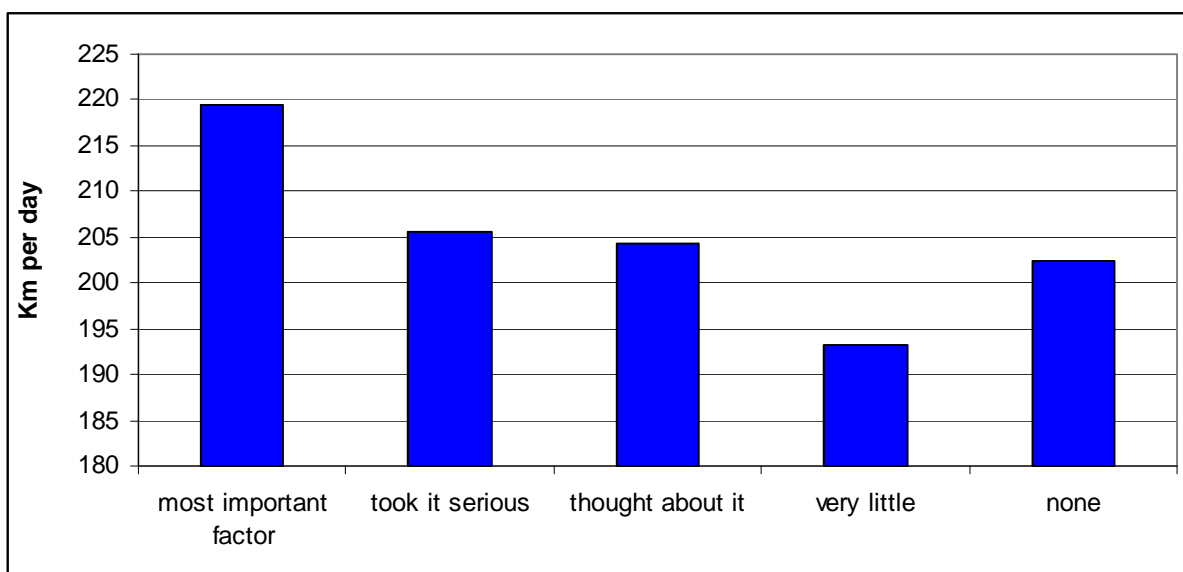
2.7 Environmental Attitudes and Travel Behaviour

It is conceivable that environmental attitudes are positively linked to environmentally friendly travel behaviour as for example measured through distance travelled per day. An ANOVA test showed, however, that there is no significant relationship between those two variables. Figure 8 visualises how far tourists drove in the 2008 sample by categories of environmental concern. Tourists who considered the environment “the most important factor” drove furthest per day: on average over 219 km. In contrast, tourists who gave very little consideration to the environment travelled the least distance per day (193 km).

Clearly, travel distance is not influenced by environmental attitudes as such. Other factors, such as country of origin, length of stay are more likely to influence both the response to the attitude question and the actual distance travelled.

Similarly, there was no statistical relationship between the willingness to pay for offsetting campervan emissions and the distance travelled. One could have expected that tourists who are willing to offset are more environmentally conscious and would travel less. The data do not confirm such a hypothesis.

Figure 8
Average Travel Distance per day in Relation to Environmental Attitudes
(2008 sample)



Further tests were carried out between environmental attitudes and tourists' likelihood of reducing travel distance when faced with higher fuel prices. Again, no relationship could be found. In contrary, tourists who took the environment as the most important factor were the most unlikely to reduce their distance (45.3%), whereas those who did not consider the environment in their travel decisions were most likely to reduce distance (14.5%) (Table 22).

Table 22
Likelihood of Reducing Travel Distance in Response to Higher Fuel Prices in
Relationship to Tourists' Consideration of the Environment

Environmental Consideration	Less distance (%)				
	highly unlikely	unlikely	possible	likely	very likely
most important factor	45.3%	20.8%	26.4%	5.7%	1.9%
took it serious	27.3%	24.7%	25.3%	16.0%	6.7%
thought about it	27.6%	29.7%	27.6%	10.3%	4.7%
very little	36.7%	29.0%	19.5%	11.0%	3.8%
none	46.1%	18.4%	14.5%	6.6%	14.5%

Statistical tests were undertaken to explore the relationship between the distance travelled per day and tourists likelihood of reducing distance when faced with higher fuel prices. Again, no significant relationship could be found.

Chapter 3

Conclusion

Two surveys were carried out in 2007 and 2008 to examine the environmental awareness of KEA Campers customers. In 2008, questions were also included to explore responses to increasing fuel prices. The 2007 sample reflects tourists during the summer season and as a result (long-haul) international tourists were more prevalent compared with the 2008 sample which was undertaken in winter and early summer and included relatively more New Zealanders and Australians. Some of the differences between these two survey years can be explained by the different mix of country of origins. For example, New Zealanders were less inclined to consider the environment in their travel planning than international visitors. They were also less willing to pay for carbon offsetting of their campervan travel. However, even international tourists surveyed in 2008 were slightly less aware of the environmental impacts of their travel when making their travel plans and were less willing to pay for carbon offsetting compared with those asked in 2007.

Tourists in the 2008 sample were frequent Internet users and seemed to appreciate the opportunity of wireless Internet in their campervan. New Zealanders were less inclined to use the Internet than international tourists. This is possibly due to their shorter length of trip.

The number of nights spent freedom camping is comparatively low (13% for international tourists). It was somewhat higher for domestic tourists (23%), which is probably not surprising since New Zealanders have greater knowledge of the place, travel for shorter periods of times and may also have spent the night 'outside commercial accommodation' but in vicinity of friends and relatives. A number of the international tourists interviewed reported that they did not freedom camp because they had encountered bad weather or because they were travelling with young children.

Finally, tourists' perception of fuel costs in New Zealand depends clearly on their country of residence. Not surprisingly, American tourists perceive fuel to be expensive, whereas European visitors find it cheap or very cheap. Perception of fuel price does not seem to influence the distance travelled per day. Similarly, environmental perceptions are not related to how far people travel or whether they would reduce their travel under high oil price scenarios. This is a very interesting observation and leads to the hypothesis that 'environmental consideration' is quite different from 'actual travel behaviour', and changing behaviour when fuel prices become costly.

The discrepancy is underpinned by tourists' comments in the interviews that campervan holidays are about "driving around" and that "coming for a holiday environmental impacts are not the things you think about". One German tourist said that if they came to New Zealand again they would "only do one island" but that it was "nice to have a round trip and see all of it this time". Although most of the tourists interviewed were aware of the environmental impacts of vehicle emissions in the context of their home countries and normal working lives they appeared to give this aspect little thought in a holiday context. One of the British tourists interviewed said that they "watch their fuel consumption when driving but were a bit more relaxed about it during holidays than when at home".