Climate Change and Doom Tourism:
Advertising Destinations ‘Before They Disappear’

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The paper investigates tour operators’ on-line promotion of tours to natural regions of the world which are beginning to be negatively affected by climate change. This is particularly illuminating given the highly competitive environment in which tour operators’ work, where they are under pressure to maximise the use of the natural resources before they deteriorate beyond use or, disappear completely. The study examined the websites of tour operators who operate in the Great Barrier Reef, Greenland and Mount Kilimanjaro and found that only a small proportion of tour operators currently use such techniques to promote their products. However, the operators that do have recently developed tours to allow tourists to experience the impact of global warming first hand and provide those tourists with opportunities to contribute financially and/or in kind to the conservation of the region. Areas of future research are identified.

Key words: ecotourism; global warming; climate change.
INTRODUCTION

Over the last thirty years, several events have supported the contention by the ‘green movement’ that economic development and growth may be inconsistent with the world’s environmental carrying capacity. These events included a series of high-profile environmental disasters, escalation in human induced climate change, accelerating ozone depletion, increased incidence of dangerous viral and bacterial mutations and, rampant desertification and deforestation (Weaver and Lawton, 2006). In the 2000’s, the greater populous have become more aware of the impacts of climate change, possibly influenced by recent, high profile, accessible forms of media such as Al Gore’s 2006 movie An Inconvenient Truth which included dramatic time-lapse photography, images of polar bears stranded on melting ice and, Mount Kilimanjaro denuded of ice and snow (An Inconvenient Truth, 2006). The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 to provide regular reports on the scientific, technical and socio-economic information relevant for the understanding of human induced climate change, potential impacts of climate change and options for mitigation and adaptation. Four Assessment Reports have been released by the IPCC in 1990, 1995, 2001 and 2007. The most recent report, the Fourth Assessment Report “Climate Change 2007” is composed of four volumes (IPCC, 2008) and has received widespread attention from the world’s media. In May 2008, the United States Interior Secretary Dirk Kempthorne announced the drastic loss of Arctic sea ice had encouraged him to list the polar bear as an endangered species because its population could collapse within a few decades and, 2007-2008 was named the International Polar Year, aimed at drawing attention to the rapid changes in the Arctic and Antarctic (Wilkinson, 2008).
Since tourism is largely dependent on natural resources, namely beaches, coastlines, mountains, forests, lakes, oceans and scenery, these elements are central to the attraction potential of most destinations, with most tourism based on stable and favourable environmental conditions (Gossling and Hall, 2006). Recent research has shown that global warming and the resultant climate change is expected to exert significant impacts upon tourism, largely through impacts on weather; rising sea levels, coral bleaching, reduced water supplies, forests and visual amenity, likelihood of disease and decline in snow and snow seasons (Becken and Hay, 2007). Some media sources have responded to this research, by publishing articles on the impact of climate change on the world’s best loved natural phenomena, with some writers encouraging tourists to visit various natural sites ‘before they disappear’ (see, for example, Booth, 2007; McKay, 2007; and, Smight, 2008). The editor of a travel agents’ magazine recently coined the phrase “environmental tourists of doom” to describe tourists who deliberately visit destinations with natural attractions as they believe they will soon disappear due to changes brought about by climate change (Salkin, 2007). Popular destinations for these tourists include glaciers, snow fields, rain forests and regions such as the Arctic, Antarctica, Mount Kilimanjaro, and the Amazon, with some travel agents reporting that clients are increasingly requesting trips to see the melting glaciers of Patagonia, the threatened coral of the Great Barrier Reef, and the eroding atolls of the Maldives (Salkin, 2007). Thus, the media is becoming replete with articles on famous natural attractions that are already changing significantly and, these writers appear to be encouraging individuals to visit these natural destinations before they “melt, crumble, fade or drift away, never to be seen or experienced in quite the same way again” (Kendle, 2008).

The purpose of this study is to investigate the prevalence among tour operators of using aspects of global warming and climate change to promote their tours to natural attractions. This is particularly illuminating given the highly competitive environment in which tour operator’s work, where they are under pressure to
maximise the use of the natural resources particularly before they deteriorate beyond use or, disappear completely.

LITERATURE REVIEW

ECOTOURISM

Numerous definitions of ecotourism have been developed over the years in an attempt to define visits to environmentally sensitive areas. For example, the International Ecotourism Society (1990) defined ecotourism as “responsible travel to natural areas that conserves the environment and improves the well-being of local people”. Cousins (2007) suggests that ecotourism should incorporate three elements, firstly, it should involve a nature-based element in which its attractions are primarily based in the natural environment; secondly, there should be an element of education, learning or appreciation between the ecotourist and the attraction; and, finally, ecotourism should appear to be environmentally and socio-culturally sustainable, in a way which ‘enhances the natural and cultural resource base of the destination and promotes the viability of the operation’ (Weaver, 2001, p. 15). Since ecotourism is a subset of both sustainable tourism and nature-based tourism, and because it overlaps with other tourism sectors that are primarily nature based, then a growing array of activities and sub activities are situated comfortably under this umbrella (Weaver, 2008). Thus, visitation to regions affected by climate change could be described as a form of ecotourism, particularly as the individual tourist learns about the impact of climate change and may have the opportunity to contribute financially and/or, in kind, to help conserve the region.
Wheeler (2003, p. 228) notes there are a bewildering variety of names allocated to the numerous strands of this type of tourism, namely “soft, green, eco, gentle, appropriate, responsible, sustainable, quality, harmonious, community, progressive”. He notes that this type of tourism is being “ecstatically embraced with unbridled enthusiasm by virtually all sections of tourism” but suggests that this wholehearted and unquestioning acceptance of such forms of tourism is “desperately disturbing” as it conveniently appeases any guilt felt on the part of the tourist, while simultaneously providing increased holiday options and experiences (Wheeler, 2003, p. 229). Although ecotourism has been identified as a form of sustainable tourism expected to contribute to both conservation and development, Tsaur, Lin and Lin (2006, p., 651) note that because of inadequate environmental assessments and audits, many ecotourism destinations tend to be both hazardous and self-destructive. They note that many destinations are suffering from the phenomenon of “honoring the name of ecotourism on the surface but destroying the environment in reality,” where the overall aim is to attract more tourists and what is not considered is whether good interactions with local residents could be maintained, whether the environment could be overloaded, or whether sustainability of natural resources could be maintained. Indeed, Weaver (2005) argues that contemporary ecotourism is largely incapable of fulfilling its potential to achieve meaningful environmental and sociocultural sustainability. As a result of such criticism, codes of ethics have been established to encourage environmentally or socially sustainable tourism businesses through such developments as: the Code of Ethics and Guidelines for Sustainable Tourism (Tourism Industry Association of Canada); Environmental Codes of Conduct for Tourism (United Nations Environment Program); Sustainable Tourism Principles (Worldwide Fund for Nature and Tourism Concern); and the APEC/PATA Code for Sustainable Tourism (Weaver and Lawton, 2006).

McCarthy (2007) suggests that visiting destinations before they disappear due to global warming is a logical extension of the growth of ecotourism, particularly because he believes that tourism is broadening out more thematically and is
becoming “issue tourism”. However, Wheeler (1994, p. 653) suggests that any form of ecotourism “soothes consciences, demands no sacrifices and allows extended holiday choice while providing an ideal shield, doubling as a marketing ploy, for the tourism industry”. Indeed, Kendle (2008) notes that visit to destinations affected by global warming reflects human selfishness to want to see something that others might not be able to in the future. The hypocrisy of this type of ecotourism is that these eco-tourists are contributing to global warming by travelling long distances and creating green house gas emissions. Ironically, the impact of global warming has created some new ecotourism sites. For example, melting glaciers in Greenland have revealed islands and underwater sites to explore, that otherwise would have remained hidden (McKay, 2007).

TOUR OPERATORS

Tour operators are the key organisations in the inclusive holiday industry, providing the logistical skills to package travel, accommodation and destination activities in ways which appeal to the travelling public (Laws, 1997). Tour operators organise, or package together different elements of the tourism experience and offer them for sale to the public either through the medium of a brochure, leaflet or advertisement. A tour operator’s package requires at least two elements to be offered for sale at an inclusive sales price and involves a stay of more than 24 hours in overnight accommodation (Page and Connell 2006). Thus, to join an organisation such as the National Tour Association (NTA) as a tour operator, the individual or company must engage in the business of conducting or arranging multiple component travel that is promoted and sold for an inclusive price on a for-profit basis (NTA, 2008). Some tour operators specialise in a particular destination or type of holiday and as such are providing services for one, or a few, distinct segments or niches in the market. These small, specialist tour operators offer selected opportunities for individuals or groups to visit destinations or engage in itineraries of particular interest to them,
e.g., sports, bird watching. Others specialise in adventure holidays perhaps offering a selection of four-wheel drive desert crossings, mountain trekking or guided tours of remote areas. The length and timing of each tour will reflect conditions at the destinations and each tour will be designed to maximise particular interests. These smaller tour operators have a competitive advantage compared to larger tour operators in that they can respond quickly to changing demand, producing new types of holidays for quite small numbers of clients (Laws, 1997). These specialist tour operators are often members of associations established to cater to their needs, such as the Association of Independent Tour Operators. Baloglu and Mangalagly (2001) explain that tour operators and travel agents have multiple and critical functions in destination marketing efforts: namely that they provide information to potential travellers and develop and promote destination packages. Tour operators have a strong influence on international flows from main generating markets to various destinations and, the success of many destinations depends on whether foreign tour operators include them in their programs (Cavlek, 2002). Laws (1997) notes that the key to a tour operator’s success is to understand what the customers want, and to provide what they want in convincing, enticing ways. Thus, tour operators compete with each other both in terms of the product they sell and the travel images they create, with these images continually being redefined (Reimer, 1990).

Miller (2001) considered the factors which influence the level of responsibility shown by tour operators and found that tour operators believe that the consumer has a large potential to shape the future development of the tourism industry which may trigger the industry into more responsible behaviour. He found that indicators of sustainable tourism would be of interest to a growing number of consumers in helping them choose a tour operator, with such information helping to increase loyalty by tourists towards a particular tour operator. Campu and Yague (2008) found that the key to tour operators’ obtaining loyal consumers is to offer products of high perceived quality. These high quality trips increase the
probability that the consumer will be satisfied, will travel again with the particular tour operator, and, will recommend the brand to friends and family.

Several researchers have investigated the use of the internet by tourism operators (see for example, Cano and Prentice 1998; and, Wan 2002) but fewer studies have considered tour operators in particular and their web sites (see, for example, Rachman and Ritchins 1997; Cai et al. 2004; and, Stepchenkova and Morrison 2006). In their study of US tour operator web sites Cai et al (2004) found that a few of the features of the web sites were targeted at presenting a trustworthy corporate image, such as customer testimonials, membership of professional organisations, and media articles about the company. They found that one tour operator presented information on its involvement in a wilderness conservation project in China. They note that the inclusion of these aspects on a website creates a powerful marketing tool, as customers may be more inclined to purchase products and services from socially responsible companies.

METHODOLOGY

Working Group II of the Intergovernmental Panel on Climate Change (IPCC) (2007) reported on the sensitivity, adaptive capacity and vulnerability of natural and human systems to climate change, and the potential consequences of climate change. The report divided the world into the regions of Africa, Asia, Australia and New Zealand, Europe, Latin America, North America, the Polar Regions and Small Islands to describe climate change impacts, vulnerability and adaptability in those areas. For the purposes of this study, each of the chapters from the IPCC (2007) report were examined to determine which natural phenomenon were reported as beginning to be affected by climate change. Table 1 summarises the natural phenomenon affected by climate change by world region and, reveals there are similar impacts being experienced around the world.
due to warmer air and sea temperatures, associated melting of snow and glaciers, and rising sea levels.

Table 1  
Natural Phenomenon Affected by Climate Change by World Region

<table>
<thead>
<tr>
<th>World Region</th>
<th>Natural phenomenon identified as being affected by climate change</th>
</tr>
</thead>
</table>
| Africa               | • Mount Kilimanjaro  
                      | • mammal species in national parks  
                      | • wildlife areas and parks  
                      | • mangroves  
                      | • coral reefs |
| Asia                 | • Himalayan glaciers  
                      | • ski areas  
                      | • beaches |
| Australia and New Zealand | • Great Barrier Reef  
                      | • Queensland Wet Tropics  
                      | • Kakadu Wetlands  
                      | • Alpine areas |
| Europe               | • Alps  
                      | • Glaciers |
| Latin America        | • Amazonia  
                      | • tropical rain forests |
| North America        | • Great Lakes  
                      | • glaciers  
                      | • ski areas |
| Polar Regions        | • polar bears  
                      | • seals  
                      | • migratory sea birds |
| Small Islands        | • beaches  
                      | • coral reef |
Barbados, Bonaire, Kiribati, Tuvalu, Marshall Islands, Maldives

(Source: Adapted from IPCC, 2007)

In 1972, the member states of the United Nations Educational, Scientific and Cultural Organization (UNESCO) adopted the Convention concerning the “Protection of the World Cultural and Natural Heritage” in order to create an appropriate framework for the preservation of natural and cultural heritage sites for the benefit of current and future generations. The Convention continues to seek to protect World Heritage sites against all kinds of threats, but the twenty-first century has seen the emergence of ‘new’ kinds of threats in climate change (UNESCO, 2007). In June 2007, UNESCO published a report using case studies to illustrate the impact of climate change on World Heritage sites. The case studies of World Heritage Sites which correspond to those listed by the IPCC Working Group II report (2007) are as follows:

- the Great Barrier Reef, in Australia (IPCC name = Great Barrier Reef);
- the Ilulissat Icefjord, Greenland, Denmark (IPCC name = Polar regions); and,
- the Glaciers in the Kilimanjaro National Park in the United Republic of Tanzania (IPCC name = Mount Kilimanjaro).

Thus, given the overlap of natural regions listed by the UNESCO (2007) and the IPCC (2007), this study concentrated on these three natural areas, namely, the Great Barrier Reef, Greenland and, Mount Kilimanjaro.

To create a list of large and small, international and domestic tour operators who operate to and within these three natural areas, the following resources were referred to, as detailed below:

- Reference was made to the on-line membership directories of the following international, national and regional tour operator associations:
  - United States Tour Operators Association (USTOA)
To identify the individual tour operators operating to the three regions, the country name was used to search the membership directory (i.e., Australia, Tanzania, Greenland) and/or by selecting the most appropriate holiday themes appropriate to each of the three regions, i.e., ecotours, wildlife, nature, adventure (for all three regions), cruises (for the Great Barrier Reef and Greenland), safari (for Kilimanjaro), trekking or climbing (for Kilimanjaro), and snorkeling (for the Great Barrier Reef). Table 2 summarises the number of tour operators listed by each tour operator association who operate in these areas and have associated websites.

- Recognising that not all tour operators are members of associations, reference was also made to tour operators operating in these three areas who use promotional websites. To this end, use was made of the search engine Google during July, 2008. Each of the three regions were searched in turn using the terms: “Kilimanjaro” and “climb”, “Greenland” and “tour” and “Great Barrier Reef” and “recreation” in the sub-directory of the Google Travel Directory. Sponsored Links are links paid for by the individual company and they appear at the top and, to the right, of any Google search research and are designed to allow internet users to quickly find particular products. The Sponsored Links associated with each country were examined and the tour operator web pages were identified.

- Some tour operators are neither members of associations or have sponsored links. Thus, Google was again used to search for tour operators using the additional terms, “global warming” for Kilimanjaro and Greenland and, “climate change” for Great Barrier Reef. Some tour operators were duplicated between the tour operator association member directories, the Sponsored Links and the non-Sponsored links, so the duplicates were removed and
Table 3 summarises the number of tour operators operating in each of the three regions.

### Table 2
**Members of Tour Operator Associations Operating in Selected Regions**

<table>
<thead>
<tr>
<th>Association</th>
<th>Great Barrier Reef</th>
<th>Greenland</th>
<th>Mount Kilimanjaro</th>
</tr>
</thead>
<tbody>
<tr>
<td>USTOA</td>
<td>59 (for Australia)</td>
<td>3</td>
<td>2 (for Tanzania)</td>
</tr>
<tr>
<td>AITO</td>
<td>14</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>NTA</td>
<td>23</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ETA</td>
<td>31</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>TATO</td>
<td>n/a</td>
<td>n/a</td>
<td>104</td>
</tr>
<tr>
<td>AECO</td>
<td>n/a</td>
<td>13</td>
<td>n/a</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>19</td>
<td>118</td>
</tr>
</tbody>
</table>

**Key:**
- USTOA - United States Tour Operators Association
- AITO - Association of Independent Tour Operators
- NTA - National Tour Association
- ETA – Ecotourism Australia
- TATO - Tanzania Association of Tour Operators
- AECO – Association of Arctic Expedition Cruise Operators

### Table 3
**Number of Tour Operators Operating in the Three Regions**

<table>
<thead>
<tr>
<th>Natural regions</th>
<th>Membership Directories of Trade Associations</th>
<th>Google Sponsored Links</th>
<th>Google non-Sponsored Links</th>
<th>Total Number of websites examined</th>
<th>Number of websites mentioning global warming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Barrier Reef</td>
<td>127</td>
<td>26</td>
<td>5</td>
<td>158</td>
<td>9</td>
</tr>
<tr>
<td>Greenland</td>
<td>19</td>
<td>10</td>
<td>1</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>Kilimanjaro</td>
<td>118</td>
<td>25</td>
<td>5</td>
<td>148</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>336</td>
<td></td>
<td></td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>
The websites of the identified 336 tour operators operating in the three regions were examined to determine which operators mentioned aspects of global warming. There were 28 such tour operators identified as having used aspects of global warming and/or climate change on their websites. The websites of those 28 tour operators were examined in more detail using content analysis. Content analysis is a research technique for “making replicable and valid inferences from texts (or other meaningful matter) to their context of their use” (Krippendorff, 2003, p. 18) and is frequently used in tourism to discover how destination images are formed (see, for example, Lee et al, 2006; Stepchenkova and Morrison, 2006; Xiao and Smith, 2006; Markwick, 2001; Dann, 1988). Similar to the study by Echtner (2002) and Echtner and Prasad (2003), for the content analysis of the written word, the units of analysis were the tour operators’ web pages. These were examined for the frequency of descriptor words (verbs, adjectives and adverbs) used in relation to the advertising of the tour operators products. The descriptor words of the verbs, adverbs and adjectives were examined as they convey the means by which the tour was promoted, for example, the ‘disappearing glacier’ or, the ‘coral bleaching’. Then the key descriptor words relating to the advertising of the tour were highlighted. The text data from each of the tour operator websites identified as mentioning global warming and/or climate change were imported into the software package ‘QSR NVivo 8.0’ for further content analysis. For ease of discussion, the tour operators have been named as follows: GBR1-9 (for operators in the Great Barrier Reef); GRE 1-6 (for operators in Greenland); and, MKJ1-13 (for operators who operate climbs to Mount Kilimanjaro).

RESULTS AND DISCUSSION

As the purpose of this study was to investigate the prevalence among tour operators of using aspects of global warming and climate change to promote their tours, the websites were analysed by the level of coverage given to aspects of global warming and climate change, as follows:
- Minor coverage = one to three sentences mentioning aspects of global warming;
- Moderate coverage = from four sentences to a couple of paragraphs dealing with aspects of global warming; and,
- Major coverage = full page coverage of aspects of global warming, either in the form of a company media release or, the promotion of a tour designed to investigate global warming first hand in the natural region (Table 4).

<table>
<thead>
<tr>
<th>Level of coverage given to global warming</th>
<th>Great Barrier Reef</th>
<th>Greenland</th>
<th>Mount Kilimanjaro</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Moderate</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Major</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>

**Minor Coverage**

Five of the tour operator websites used terms such as “believed”, “probably”, “may be” and “if” in relation to global warming suggesting they (and perhaps the potential tourist) remain doubtful about the impact of global warming on the natural resources. Two tour operators used the term “sadly” to recognise that changes have now begun to be experienced at the natural destination (Table 5).

To encourage potential tourists to climb Mount Kilimanjaro, the tour operator KMJ12 stated the following: “Possibly for those interested in climbing this gigantic beauty, it is well recommended that you go earlier than later”. Similarly, GRE1 in bold letters at the end of an itinerary to Greenland stated “ATTENTION! Due to global warming the sea-ice is getting thinner and thinner every year. Within a few years, these expeditions will no longer be possible. This is the case already with our Svalbard winter-programs”. Thus, the minor coverage by these tour operators reflect three aspects, namely, uncertainty about the impact of global warming;
some regret about the development of global warming; and, some “call to action”, i.e., encouraging the tourists to visit before the natural phenomena disappear.

### Table 5
**Wording used by Minor Coverage Tour Operators**

- “These glaciers…are, as a result of global warming, believed to be receding” (KMJ4).
- “While the glaciers have recently receded, probably due to global warming, they remain for now an overpowering and unforgettable sight” (KMJ3).
- “The ice cap of Mount Kilimanjaro…may be gone in less than 20 years because of global warming” (KMJ13).
- “Global warming may be putting pressure on Australia’s iconic Great Barrier Reef” (GBR8).
- “If global warming continues at its current rate, Greenland’s ice sheet could begin to melt this century” (GRE6).
- “It is believed that Kilimanjaro…is loosing glaciers due to global warming” (KMJ1).
- “Sadly, Kilimanjaro is now a prime example of global warming” (KMJ5).
- “Sadly, global warming is melting this away… in a couple of years there will be very little left” (KMJ12).

### Moderate Coverage
The tour operators with moderate coverage of the impact of climate change on the natural regions addressed it in several ways. For example, the website of GBR4 highlighted that a founder member of the company had participated in conservation movements around the world and was a pioneer in ecotourism, which implied their expertise and knowledge in all aspects of the environment. Similarly, the website of KMJ6 noted that their tour leader has recently provided advice to the National Parks on environmental impact reduction and the website provided a link to the detailed and technical 2006 report to which the company had contributed entitled, “A Preliminary Assessment of the viability of siting an
Ecological Research Station in the Northern Kilimanjaro Area”. This implied that if the tourist purchased the trips organised by these tour operators they would be assured of experiencing the tour with knowledgeable guides, who are experts in the region being visited.

In a section named “Let’s Talk about Kilimanjaro” one of the Mount Kilimanjaro tour operators (KMJ7) provided information about climbing the mountain under headings such as Physical Fitness, Altitude and Acclimatization, Personal First Aid Kit, and Photography, etc. In the section entitled “Glaciers and Glaciology” the tour operator discussed in detail how glaciers are formed, and in that context discussed glacial recession, noting that, “if the present rate of glacial recession continues the majority of the glaciers on Kilimanjaro could vanish altogether in the next 50 years” (KMJ7). Similarly, three of the Great Barrier Reef tour operator websites (GBR6, GBR7 and GBR9) provided detailed facts about the ecology of the Great Barrier Reef. In the context of discussing the Great Barrier Reef as a living organism, mention is made of coral bleaching and its associated relationship with climate change. For example, the website of GBR9 stated that “prolonged bleaching can lead to coral death – one more way global warming and periodic climate shifts such as El Nino can change the face of the earth” (GBR9). However, each of the three Great Barrier Reef tour operators implied that it is not only the Great Barrier Reef that is beginning to be impacted by climate change but other reef areas are also facing similar issues. For example, tour operators GBR6 and GBR7 noted the following:

- “Scientists fear that global warming will continue to cause bleaching on the reefs throughout the world” (GBR6).
- “This phenomenon is not exclusive to Queensland’s Great Barrier Reef, but has been observed on reefs throughout the world” (GBR7).

This suggests that the tour operators are keen to emphasise that the Great Barrier Reef should continue to be visited since all reefs are facing the same issues. Thus, the moderate coverage tour operator websites introduced aspects of global warming within a discussion of the environmental aspects of the tour.
Only one tour operator (KMJ9) used scare mongering to promote their tour in a section named “General Information” about Mount Kilimanjaro, when they stated, “If you have not planned to visit Tanzania and climb Mount Kilimanjaro, plan it now! You need to witness the climatic change and its effects. Don’t wait to be told or just read as history from books” (KMJ9).

**Major Coverage**

Two of the tour operators on the Great Barrier Reef (GBR1 and GBR2) and one operator on Mount Kilimanjaro (KMJ2) provided detailed coverage of the impact of climate change on the natural region but do so in a matter of fact, non-sensational manner. Similarly, four of the tour operators in Greenland (GRE2, GRE3, GRE4 and GRE5) gave major coverage to aspects of global warming. Two of the major coverage tour operators have developed climate protection initiatives for tourists. For example, on their website, GRE2 provided a media release page to highlight that they have developed a program called the “Polar Ambassador Program” which provides post-expedition support through an online community for participants who want to actively reduce their carbon footprint.

Tour operator KMJ11 has developed a tour of Mount Kilimanjaro for a maximum of 12 people to be run in December 2008-January 2009 entitled the “Climate Change Challenge, Mount Kilimanjaro Mission”. To be part of the climb the tourist must donate a minimum of $US1,200 per person to a non-profit conservation organisation (plus pay the usual price of $US7,000 to participate in the tour). The tour operator notes that the money donated will be used to buy weather equipment for researchers on Mount Kilimanjaro. Tour operator KMJ11 appears genuine in attempting to be a sustainable tourism operator, noting on their web page that in 2002 they won the World Travel and Tourism Council Green Award for Corporate Social Leadership in Travel and Tourism and, in the same year, they won the Ecotourism Society of Kenya award for “Demonstrating commitment to a good environmental and socio-economic practices in running a lodge”. However, GRE2 appears more commercial in their development of climate protection initiatives, as they conducted a survey of their visitors to
assess their opinions regarding global warming and responsible tourism and found that, as a result of their expedition, 60% of the tourists were motivated to protect environmentally sensitive areas. Thus, by providing the tourists with opportunities to be involved in an online community the tour operator has the opportunity to regularly promote upcoming tours and other products to this captive and interested audience.

In 2007, tour operator GRE4 developed a new tour to “Warming Island”, Greenland which is an island recently discovered due to the melting of the ice sheet. The tour in September 2008 is, not surprisingly, listed as being SOLD OUT, particularly given that the tour operator notes that the island has been receiving “global attention from major newspapers worldwide, including the New York Times”. At the bottom of the webpage there is a link to the New York Times article entitled, “As Ice Recedes, Interest Surges”. Similarly, tour operator GR5 also developed a new tour called “Jewels of the Arctic” which they describe as their “inaugural Climate Change voyage” where “special guests open our eyes to the dynamic change that global warming brings to the Arctic”. The tour operator invites tourists to “see first hand, as our guest lecturers explain how life above the Arctic Circle is adapting to its surrounding environments as they succumb to the effects of global warming” (GRE5). Similarly, tour operator GRE3 provided a media release page explaining that the tour operator had been involved in a recent expedition to the Arctic entitled “Arctic Expedition for Climate Action” which aimed to highlight changes to the region due to climate change. Thus, these major coverage tour operators are taking advantage of the surge in interest in the impact of global warming by providing services to meet demand from serious, committed environmental tourists with higher disposable incomes. This reflects the ability of tour operators to respond to changing demand by quickly developing these global warming related tours.

CONCLUDING COMMENTS
The key finding from this study is that, at present only a small number of tour operators are capitalising on aspects of global warming to promote their tours, representing only 8% of all the tour operators who operate on the Great Barrier Reef, on Mount Kilimanjaro, and in Greenland. Thus, most of the tour operators who operate on the Great Barrier Reef, on Mount Kilimanjaro, and in Greenland do not mention climate change on their web pages (i.e., 94% of operators on the Great Barrier Reef; 90% of operators on Mount Kilimanjaro; and, 80% in Greenland) which, given that they are selling tours to natural assets where climate information would be quite appropriate, is a surprising omission. Consequently, when the tour operators mention climate change on their web pages they appear to do so deliberately, for educational, promotional and/or competitive reasons.

The analysis has shown that, at present, the existence of tour operators who are heavily exploiting global warming and climate change to attract tourists is mostly “media hype”. In other words, particular sectors of the media (see for example, online news services and travel blogs, such as, Leahy, 2008; McKie, 2007; Shipman, 2007), have been using aspects of global warming and disappearing natural attractions as interesting and exciting angles for their stories but, in reality, few tour operators are using this aspect to promote their tourism products. The study also found that, among the tour operators who provide major coverage of aspects of climate change, some have designed specialist tours to capitalise on the growing interest in climate change, while others have developed some climate protection initiatives for tourists. The tour operators with climate protection initiatives may be hoping, as Miller (2001) found, that the demonstration of sustainable tourism may encourage loyalty by tourists towards them and, as Campu and Yague (2008) found, that projecting a quality image would encourage loyal consumers.
The mention of the impact of global warming on the tour operator websites may reflect the move in advertising to design promotions to appeal to the emotions (the non-rational), particularly in electronic advertising (radio, television and Internet) (Beasley and Danesi, 2002). The tour operators who have minor coverage of global warming appear to be using “scare copy techniques” which is often designed to promote services such as insurance as it tries to evoke fear and/or impending disaster (Beasley and Danesi, 2002, p. 18) whereas, the moderate to major coverage tour operators have introduced discussion of global warming within the context of the environment to create understanding of the natural regions they visit, and, the major coverage tour operators have taken the opportunity to derive specific tours to meet the new interest in such travel, including the introduction of climate protection initiatives. This may prove beneficial to these tour operators given that, although these ecotourists often have large carbon footprints, they might be the most susceptible to change messages, for example, engaging in less frequent, less extensive but longer travel and supporting green initiatives and technologies (Becken and Hay, 2007).

In the future, as potential traveller’s awareness continues to grow about the impact of global warming, tour operators may be tempted to incorporate aspects of global warming more fully into their advertising, particularly because, as Kendle (2008) asks, “who can blame anyone for jumping on the doomsday bandwagon?” In addition, such promotion may reflect the reality that appealing to the human ego remains a terrific sales tool for almost any product (Salkin, 2007). Thus, doom tourism, namely where individuals travel to see and experience natural phenomena which are currently being negatively affected due to global warming, is in its infancy but has potential to quickly grow in the next few years. Given the increasing awareness of climate change among the general population and, the associated perception that the variety and uniqueness of the flora, fauna and natural icons are fast disappearing, future research could determine if tour operators are becoming more desperate to attract tourists and increasingly use climate change related shock tactics to attract tourist attention.
REFERENCES


