YOUR TITLE PAGE MUST INCLUDE THE FOLLOWING:

The Title: GLOBAL WARMING AND THE TOURISM INDUSTRY

RMIT University
Course Name: Bachelor Applied Science (Tourism or Hospitality) Mg
Course Code: (refer to front page of your course guide eg: Tour 1003)

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EXECUTIVE SUMMARY

The topic of the report chosen is Global Warming and the implications for the Tourism Industry. The author believes that this topic is of global interest, and meets the criteria of the topic brief, ‘Discuss what you believe to be the hottest future issue in tourism’. While the affect of Global Warming on the Tourism Industry is not widely known, there is often general concern expressed by the broader global community concerned with addressing the ‘Greenhouse Affect’. This report will focus on the impact that this phenomenon will have on the tourism industry. It is necessary to develop an understanding of how global warming occurs in order to understand the impacts on tourism. The affect of global warming is discussed and implications for tourism businesses around the world are predicted. The research methods used in this report was through literature searches of academic and industry journals and company publications.

The finding of the work are disturbing as the world is already experiencing the affects of global warming through sea level rises which in turn affect coral reefs and island communities and health risk through the spread of tropical diseases. An increase in temperature will also have a detrimental affect on ski resorts, wildlife and other tourism businesses. The time frame is much closer that most people realize with more severe impacts being experienced by the year 2050.

Some governments are trying to address the issue, however the super powers whose countries contribute the most to the detrimental affect of global warming are the most reluctant to reduce greenhouse gas emissions, while island communities such as the Maldives are a voice in the wilderness as rising sea levels threaten the very existence of these island communities. Tourism business and communities reliant on wildlife, sun or snow activities will be severely affected.

There is an urgent need for action to be taken by governments today to address and plan for future events, some of which are already being experienced. Water shortage, health risks due to exotic disease and the effects on human and animal communities as they struggle to adapt to climate change are of immediate concern.
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1. INTRODUCTION

This report will address the assignment topic. ‘Discuss what you believe to be the hottest future issue in tourism’.

The topic chosen for this report is Global Warming and the Tourism Industry. To address the complexities of this topic, it is necessary to begin the report with an understanding of global warming; also known as the greenhouse effect, in a broader context and the impact it is having around the world, and implication for the future. It is important to keep in mind the global impact on the Tourism Industry that these changes could have. A SWOT Analysis will be conducted and steps identified to address the issue. The report will also focus on the effect and implications for the tourism industry.

2. GLOBAL WARMING

2.1 Global Warming

Many environmental and meteorological experts believe that warming of the world atmosphere has already begun. The process is known as global warming or the greenhouse effect. If temperatures keep rising over the next century, they will cause a complete change in weather patterns around the world, which will affect every person on the planet. As these shifts take place weather patterns will be unpredictable and erratic.

It is predicted that in the next 100 years, temperatures are projected to rise by 6°C degrees worldwide (Earth Island Journal, 2001). When considering the fact that a 5°C degree shift in temperature caused the last ice age, it is stated that a warming of the earth can in turn produce gases, which will reverse the warming effect and send the world into another ice age. The British Meteorology Centre believes that even if all strategies were implemented today, it would only reduce global temperatures by six hundredths of a degree.
2.2 The Cause of Global Warming

Global warming is largely man made and has increased dramatically since the start of the Industrial Revolution (Shute et al, 2001). An article in the Amicus Journal (2001) explains the cause as coming from the burning of coal, oil and other fossil fuels. The process releases carbon dioxide and other greenhouse gases into the atmosphere and traps heat causing the atmosphere to warm up. The term greenhouse effect is making the analogy to glass in a greenhouse where atmospheric gases transmits light but traps heat which causes a warming effect.

The article lays significant blame on the power plants in the USA, which are increasing production from old inefficient plants that do not meet industry requirements as one of the main producers of carbon dioxide, the second culprit being transport.

2.3 The Kyoto Protocol

The Kyoto Protocol is to world’s attempt to develop guidelines to stop the increase of greenhouse gas emissions, such as carbon dioxide into the atmosphere. Targets were set for developed countries to cut greenhouse gases to 5.2% below levels of 1990, to be achieved between 2008 and 2012. This target still allows substantial amounts of gases to be released into the atmosphere. Countries such as the USA and Australia have put up opposition, to meeting these targets with the USA in danger of walking away from the agreement altogether.

2.4 Effects of Global Warming

As the atmosphere heats up, snow and ice caps are melting, and the ocean’s waters are rising and become warmer. Global warming will have an enormous impact on human lifestyle and health, plant-life, crops, animals and the food chain. Global warming will have economic consequences for each nation as they count the cost of protection from, and dealing with natural disasters and loss of ecosystems, as temperatures shift to far and to fast for animals and plants to adjust. These effects are already evident in some fisheries, mangrove swamps, coral reefs and coastal lagoons.

There is evidence of the effects of climate change all over the world. In the Antarctic there is a decrease of shrimp like krill, the food source for Penguin chicks,
due to the warming waters, monsoon floods in India and Bangladesh, mudslides in Alpine regions, and heatwaves in the USA. Mosquito viruses have moved to regions and altitudes not found before such as the malaria in the Kenyan highlands and the West Nile virus in New York (Amicus Journal, 2001).

A report done by Shute et al (2001) identifies further impacts that are already occurring or likely to occur if global warming continues at its present rate.

2.4.1 Over the last century, worldwide sea levels rose by 9 inches and are predicted to rise from between 3.5 to 34.6 inches by 2010, this is due to melting icecaps and glaciers and thermal expansion. At the top range this would mean that parts of major cities and islands including Florida Keys and the Marshall Islands in the South Pacific would be under water. El Nino, the weather conditions that cause flooding and mudslides would be more severe.

2.4.2 The Northern Hemisphere will become hotter which will put health at risk from heatstroke, and insect borne diseases such as Malaria and West Nile virus. West Nile virus arrived in the USA in 1999.

2.4.3 Higher temperatures and less rainfall in the winter months could lead to fires due to dried out vegetation. Early melting of snow in the Rockies and Himalayas can cause spring flooding and drier summers.

2.4.4 Lack of water is another effect of global warming. It is estimated that three billion people will suffer from water shortages by 2015, and wars could erupt over water in the Middle East. 2050 could leave downstream nations like Iraq and Syria without enough drinking and irrigation water.

2.4.5 Millions of refugees could be displaced by environmental disasters in low-lying countries like Bangladesh, China and Southeast Asia. Tropical nations and those in the developing worlds are most at risk, while higher altitude countries such as the USA would be less affected.
3. GLOBAL WARMING AND INTERNATIONAL TOURISM

3.1 The Future

McDowell (1999, p6) writes that ‘...barring widespread economic, political or climatic upheaval, one thing seems certain - tourism will continue growing at record rate’.

Should global warming continue at its present rate, the future of Tourism will be uncertain, along with McDowell’s optimistic forecast. In the future the ramifications will be felt around the world, and travellers may be less inclined to travel. The fear of political upheaval, the rise in natural disasters, tropical diseases, heatstroke, droughts, floods and unpredictable weather patterns will all have their impact on the traveller, along with disappearing eco systems. Governments whose gross domestic product (GDP) is supported by a thriving tourism industry will also feel the financial loss in their economies.

Children of today will lead tomorrow’s industries and live with the consequences of today’s decision makers. Imagine this world if no action is taken. Shute et al (2001) looks ahead to the year 2050 and the impact of global warming on a selection of tourism regions. This impact would see South Beach Miami’s art deco hotels waterlogged, the Caribbean Islands drinking water aquifers contaminated by the rise of sea levels, Pacific Island nations disappeared under the sea, 10% of the Himalayas uninhabitable due to the rise of sea levels, Avalanches in the Alps and severe floods at Florida Keys.

These scenarios could be repeated in areas throughout the world, not just the ones listed here. Most world regions are current or potential tourist destinations. Beach holidays would no longer be popular because of high temperatures, and the lack of snow in the mountains will affect the traditional winter holidays. The most vulnerable of the world’s tourism sectors affected by global warming will in turn have a flow on affect to other regions and secondary industries. These areas are expanded on in section 3.2 to 3.6 of this report.
3.2 The World’s Island States and Coastal Zones

Island and low-lying states throughout the world similar to those illustrated in chart 1 are the most vulnerable to rising sea levels. These islands and low-lying states can expect Tourism to be affected by the loss of beaches and damage to its ecosystems. Important infrastructure and services can also be disrupted such as salinity in drinking water. In the most severe circumstances some areas may be uninhabitable. Shifts in temperature will also make island states more vulnerable to tropical and sub tropical disease.

Chart 1: Solomon Islands

Economic loss caused by a downturn in Tourism in these areas would have serious consequences to not only the economic, but also to the political and sociocultural life of these communities.

Berz (2001) predicted that the Maldives, Marshall Island in the South Pacific and the Federated States of Micronesia could have economic losses exceeding 10% of their present GDP due to global warming.

In some Caribbean countries visitors staying for long periods of time outnumber the residents, such as in the Bahamas where visitors outnumber residents 6 to 1. Tourism contributes 40% to the GDP of this country and employs three quarters of the workforce directly and indirectly (Intergovernmental Panel on Climate Change, 2001).
The Maldives is made up of more than 1,000 islands, many of these islands are small and the region has built their economy on Tourism. The Economist (1999, p 10) predicts that ‘...a rise of just one metre would wipe out four fifth of the land and what would be left would be sandbars’. ‘Scientists predict that the islands could be underwater by 2030 due to global warming’ (Sobir, 2001). The Intergovernmental Panel on Climate Change (2001) states that tourism contributes 18% to GDP in the Maldives and employs more than a quarter of their workforce directly in Tourism. Further economic information on Tourism in the Maldives and Solomon Islands is illustrated in chart 2.

Chart 2: Maldives & Solomon Islands GDP Travel & Tourism Economy

Coastal Zones have diverse eco systems, which support and provide a food source to a variety of species. Coastal areas are also prone to increased flooding, storms and cyclone activity. Europe has many main cities located in coastal zones, some of which are already beneath sea level, the Netherlands, the fens in eastern England and the Po River Plain in Italy. The Intergovernmental Panel on Climate Change (2001) quotes Frasetto (1991, p 21) ‘...cities such as London, Hamburg, St Peterburgh, Thessaloniki and Venice are built on estuaries and lagoons’ and climate change must be a consideration in future planning of the cities as well as for tourism.
3.3 The World’s Coral Reefs

Coral reefs generate significant revenue from Tourism. In the Caribbean alone they contribute $140 billion annually. The coral reefs and Island nations in the Pacific and Indian Ocean attract tourists from all over the world. The UNESCO Courier (1999) says that 90% of corals have died in the Seychelles and some Indonesian Islands and there is extensive damage to other corals surrounding Mauritius, Maldives, Sri Lanka and Seychelles. Mastny (2001) in an interview with Wilkinson, a leading marine biologist, reports that 60% of the world’s coral reefs could die by 2030 if current conditions continue. Reefs around the Indian Ocean, Arabian Sea, Persian Gulf and South East Asia are particularly vulnerable, as are the marine species that inhabit these reefs. Fisheries are also affected which also contribute to the economies of these island states.

3.4 The World’s Ice Capped Mountains

The ice-capped peaks of some of the world’s most popular mountains similar to chart 3 are rapidly retreating, Mount Kilomanjara, Peru, Tibet, and the Andes from Montana to Mount Everest to the Swiss Alps. Revkin (2001) predicts that 90% of the ice caps will disappeared by 2025, leading to floods and threatening water supplies in places like Peru and Nepal. Local tourist operators are concerned that the attraction to tourists will diminish along with the ice caps.

Chart 3: Ice Capped Mountains, New Zealand

3.5 Ski Resorts

Ski resorts will be affected dramatically with the warming weather, seasons will be shorter and there is an increased risk of unpredictable landslides and avalanches.
3.6 Wildlife

Native wildlife in their natural habitat is a major attraction for most visitors to other countries. A reindeer in Lapland, a lion in Africa, a polar bear in Canada, a panda in China, a kangaroo in Australia. Throughout the world, climate change will affect wildlife and their habitat in varying degrees, the vegetation and the water supply. Birds will migrate in search of more suitable habitat.

The Intergovernmental Panel on Climate Change (2001) sites Africa as an example. The vegetation in drought prone areas in Africa cannot adapt quickly enough to climate change of this nature. Africa has limited corridors for animals to migrate to new habitats due to the surrounding land being cleared for agriculture. As water supplies dwindle the natural attractions such as the lakes and waterfalls will also be less attractive to visitors.

3.7 Forests & Flora

Forests act as carbon sinks, soaking up greenhouse gases as well as influencing rainfall. Continuing to log natural growth forests is detrimental in controlling greenhouse gases.

Trees and plants as with wildlife will find it difficult to adjust to changing weather patterns caused by warming. Species will die, further upsetting the food chain and ecology of the region. Increased salinity is also predicted.

3.8 Transport

Transport is particularly susceptible to climate change. A shift to higher temperatures would ‘reduce maximum takeoff pay loads’ for aircraft, while ‘changes in winds at flight levels would disrupt aircraft operations and economics’. Road transport would also be disrupted with softening tar on roads, while the buckling of rail lines would affect railways. Airports, roads and bridges would be susceptible to increased flooding and disruption to transport operation, shipping and airways, as well as safety considerations and costs (Intergovernmental Panel of Climate Change, 2001).
4. GLOBAL WARMING AND AUSTRALIAN TOURISM

From the diverse landscapes and biodiversity in Australia a thriving tourism has developed as noted in chart 4, that is particularly vulnerable to climate change. Climate change causes loss of biodiversity, and loss of biodiversity contributes to climate change.

**Chart 4: Estimated Tourism Growth: Australia**

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2012</th>
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<tr>
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<td>T&amp;T Demand</td>
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<td>2</td>
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<tr>
<td>T&amp;T Industry</td>
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<td>-2</td>
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<td>-3</td>
</tr>
<tr>
<td>Capital Investment</td>
<td>-1</td>
<td>-2</td>
</tr>
</tbody>
</table>

Adapted from information WTTC, 2002.

4.1 Australia’s Reefs

The coral reefs surrounding Australia are some of the most beautiful and sensitive in the world, and attract visitors worldwide. Coral reefs are susceptible to slight changes in the environment, as a canary is to a change of environment in a coalmine. Warmer waters devastated Ashmore and Ningaloo Reefs, which are off the northwest coast of Australia, in 1998. The Great Barrier Reef was saved by cooler Antarctic waters circulating in the South West Pacific at the time (Pockley, 2001). While a rise in water levels would benefit the Great Barrier Reef allowing corals to grow vertical, a warming of 3.6 degrees in water temperature would ruin the reef as a tourist
attraction (Shute et al, 2001). Other adverse effects on the reefs from global warming would come from increased cyclone activity.

4.2 Coastal Zones and Islands

Most of Australia’s population live in coastal regions. Low lying tourist regions, beaches, resort developments and marinas are at most risk from rising waters as well as unpredictable rainfall, storm damage and contamination of water supplies by salt water which has been identified as of particular concern to Perth.

The Intergovernmental Panel of Climate Change (2001) and Chappell et al (1996), generalise that all of the Australian coastline is vulnerable to the effects of global warming, the degree varies immensely from one region to another and the extent and severity of this affect has not been identified for all regions. However the loss of beaches and shoreline recession on the Victorian coastline have been identified as most at risk which includes west of Cape Otway due to severe waves, and Port Philip Bay and the Gippsland Lakes.

The beaches and coastlines in the southern parts of Western Australia and Eastern Australia are vulnerable to severe wave impact and change of direction, and in Northern Australia the rise in sea levels and cyclone activity will threaten these beaches. Port Augusta, Port Pierie, Lakes Entrance and Mackay are already experiencing severe flooding and could not sustain the predicted rise in water levels from global warming. Island communities such as the Australian Territory of Coco (Keeling) Islands and Aboriginal communities across Northern Australia are particularly vulnerable.

4.3 Koori Cultural Tourism

The impact of global warming on cultural tourism will affect Aborigines living in remote communities, through a shortage of native bush foods and water.

Kakadu National Park, a world heritage area in the Northern Territory, attracts tourists from all over the world. This area is transformed into freshwater flood plains during the wet season and draws a unique species of birds and wildlife. A rise of one metre in sea level could change this region into mangrove forest, which would completely devastate what is also, a traditional aboriginal hunting and fishing ground.
4.4 Ski Resorts

Studies undertaken by the CSIRO (1997) indicate that many skiers believe that global warming will have an adverse effect on Australian Ski Resorts by 2030, where 44% of skiers will no longer frequent the resorts, choosing to either ski overseas or give up the sport altogether. With the increase competition between the ski fields the ones located at lower altitudes may be out of business.

4.5 Transport

According to the Intergovernmental Panel of Climate Change (2001), New Zealand and Australia are particularly reliant on efficient transport for exports and tourism. Climate change could cause severe disruption to these services.

5. SWOT ANALYSIS

This SWOT Analysis will focus on broad issues, as Global Warming is a world problem. In many instances the strengths and opportunities listed in this section can be seen as representing the opposing view to weaknesses and threats.

5.1 Strengths

A philosophic view will see global warming as bringing people of the world together to address a common issue that affects the whole planet. The opportunity exists for a change of attitude, to work together to face the challenges that global warming presents in developing new industries, technologies, societies and ways of living. A world quite different to the one lived in today. There may be some short-term advantages for some regions as the planet warms, but these will not continue. In this SWOT Analysis strengths also represent opportunities and may be far more relevant in this context.

5.1.1 World Issue: global warming is a world issue, affecting every person on the planet, and it is reasonable to assume that support to address it would exist.

5.1.2 Government Policies: governments have implemented cautious strategies, guideline and policies, which are a starting point to address the issues.
5.1.3 New technologies: research is progressing to identify alternative sources of ‘clean’
energies and new technologies.

5.1.4 Business support: some businesses are making a cautious commitment to address the
greenhouse challenge.

5.1.5 The Kyoto Agreement: The Kyoto Agreement although in its embryonic stage is
attempting to globally address the Greenhouse Challenge.

5.2 Weaknesses

5.2.1 Developing countries: developing countries who have not yet reaped the benefits of
the industrial age are not in a position to address global warming due to the
economies of their countries. Working with old technologies, these countries will
continue to release huge amounts of greenhouse gases into the atmosphere.

5.2.2 Lack of leadership: Political powers in developed countries lack strong leadership in
addressing these issues.

5.2.3 Kyoto Agreement: Lack of support and leadership in implementing parts of the Kyoto
Agreement from political powers such as the USA and Australia.

5.2.4 Politics: Large Corporations are influential in the political arena. Politicians are
opposed to implementing any policies or regulations, which these companies may
view as having an adverse affect on them in the short term.

5.2.5 Short term focus: The combination of Political Leaders, a Capitalist Society and
Large Corporations sees a focus on short term goals, and immediate personal gain
with a reluctance to understand the detrimental impact of decisions made today, on
the world that our younger generation will inherit.

5.2.6 Negative view: Decision makers are focused on the negative view of the corporate
world, such as loss of jobs and revenue, instead of recognising that jobs will be
created through new technologies and industries.

5.2.7 Government Policies: government policies do not go far enough to address global
warming, offering only token gestures. Fragmentation of views amongst decision
makers and time frames set for the reduction in greenhouse gas omissions, have the
resulting affect of ‘to little to late’.

5.3 Opportunities

The impact on the world from global warming is inevitable, however opportunities do
exist to arrest global warming and stem further damage if action is taken now.
5.3.1 Strong Leadership: government leaders and industry in developed countries can show strong leadership now to address the greenhouse effect.

5.3.2 Kyoto Agreement: world leader can move the Kyoto agreement forward, through a cooperative and collaborative approach.

5.3.3 Global Awareness and Action: informing the public in order to seek their support to stem the flow of greenhouse gas omissions, both in the home as well as in industry. Allow communities to lobby their governments to take action. Media has an important role to play in this process.

5.3.4 Public Support: For governments to gain public support, it is necessary to release information and inform the public in a direct and honest manner to the potential gravity of the situation and what they can do to contribute.

5.3.5 New Industries/Technologies/Natural Resources: Governments and industries have the opportunity to develop ‘clean’ fuels and energy using solar power, wind turbines, electric, ethanol and others, these will be cheaper to use, do not pollute the atmosphere, and solve the problem of dwindling natural resources. This will also lead to new developments in the traditional secondary industries such as transport. The car industry and oil companies seem juxtaposed. It is estimated that the car manufacturing industry will peak in 2030, and at the same time oil supplies will be dwindling.

5.3.6 Research: Global warming has activated a surge in research opportunities in all areas and industries. Agriculture, health, water, eco systems, wildlife and tourism and the insurance industry are of particular importance.

5.3.7 Employment & Education: With the development of new technologies and industries will flow new jobs and subsequently education and training.

5.3.8 Recognition of Indigenous Cultures: Understanding and learning from indigenous cultures around the world in the ways of protecting and sustaining the land on which we rely for our existence.

5.3.9 Forward Planning: developing strategies to adapt to the inevitable changes that will occur caused from global warming.

5.4 Threats

The threat to the world, from global warming is very real and scientists have indications that the world is already experiencing early impacts. Should pollution of the atmosphere continue at the current rate, the world can expect severe devastation.
5.4.1 Loss of land: Island states and low-lying areas will be adversely affected from rising water levels.

5.4.2 Global water supplies: Rising sea levels and changed weather patterns threaten to contaminate water aquifers, and will see water shortages in most regions, possibly shortage of supply for hydro electricity as well as floods in unlikely regions.

5.4.3 Adverse changes in weather patterns

5.4.4 Devastation of ecosystems

5.4.5 Negative impacts on crops, agriculture and wildlife

5.4.6 Human health affected through airborne tropical diseases, lack of water and food.

6. RECOMMENDATIONS

6.1 A Responsible Tourism Industry

As an Industry, Tourism has an important role to play in addressing the Greenhouse Effect. Governments throughout the world recognise the important contribution Tourism revenue plays in contributing to their economies, both through the tourist dollar as well as through the number of persons employed in Tourism and associated industries.

As a worldwide industry, Tourism has a lot to lose from the effects of Global Warming. It also has a lot to gain in taking a leadership role in addressing these issues now to implement standards, regulations, planning and management, and to be an active voice and leader to government on global warming issues in relation to tourism. This section will seek to identify issues facing the Tourism Industry and suggest a course of action.

6.2 Transport

The movement of people around the world and within countries is an integral component to a successful tourism industry. Transport is one of the most identifiable causes of greenhouse gas emissions and yet it is also one area that will be most adversely affected by global warming.
6.2.1 Car, Bus and Rail: Alternative fuels are already in stages of development and some progressive transport businesses are working with these alternative fuels. Solar power, ethanol and other forms of ‘clean’ fuels are an alternative for car and bus transport. The use of public transport where possible in moving groups of people would also cut down on the amount of pollutants expelled into the atmosphere from exhaust emissions.

6.2.2 Aircraft: The European Report (2000) has stated that aircraft omissions will contribute 15% of total global warming by 2050 if emissions are not reduced. Aircraft do not come under the Kyoto Protocol. By 2015 the reductions set by the Kyoto agreement will have to be offset by 50% due to aircraft emissions. The report suggests that high-speed rail alternatives be used and by priority, linked to the environmental performance of aircraft and their operations.

6.2.3 Cruise Ships: Cruise ships are considered to expel the most pollutant, dirtiest fuels available, with sulfur levels 5,000 times higher than diesel trucks or buses. The result is severely damaging to both human health as well as aquatic life. Waste from ships leads to fish kills and loss of biodiversity according to Environment (2000). With an expected growth of 9% each year for the industry, it is important for stricter regulations to be implemented immediately to protect the eco systems, as well as research conducted into alternative fuels and vessel design for energy efficiency.

6.3 Sustainability

The sustainability of eco systems and tourism regions is integral to the tourism industry, however the increased visitor numbers combined with the effects of global warming on our eco systems is putting both eco systems as well as more sensitive tourism regions at great risk. Commitment to preserving the natural environment must be the first priority for sustainable tourism.

The tourism industry has a responsibility to insure that guidelines for impact and feasibility studies on a region include preserving the natural environment for the long term, global warming issues should be included along with visitor impact and other aspects. Hassan (2000) suggests that environmental impact assessments and feasibility studies should be required before loans are approved for development projects. This would likely attract ‘environmentally friendly’ investors.

According to Hassan (2000) the World Commission on Environment and Development (1989), defines sustainable development as ‘development that meets the
needs of the present without compromising the ability of the future generations to meet their own needs.’ This has great relevance in both the natural and the built environment.

6.4 Built Infrastructure

Building Infrastructure in coastal regions will be particularly vulnerable to the impact of global warming such as rising sea levels and changing weather patterns. Both location and structure of hotels, resorts and attractions must be considered. As well as impact and feasibility studies on the natural environment in which they are located in regard to increased visitor numbers. Consideration should also be given to using clean energy sources such as solar power, as well as strict regulations for recycling and waste management.

6.5 Water Supplies

The tourism industry is known for its waste of water and strategies need to be implemented to address this aspect. Water shortages are a major world concern, and global warming will accelerate this process. Regulations set out to conserve water, as well as using rainwater for gardens and sanitation would help to address this problem. Island resorts and those near the bay and ocean could also utilise seawater to service swimming pools and health spa facilities. Insuring that water aquifers remain uncontaminated by seawater is another concern. Tourists should also be educated to environmental issues to insure waste is minimised.

6.6 Training and Informing Industry

An informed industry can assist in stemming the greenhouse effect to some extent by adopting environmental business practises and having informed tourists. Industry associations and educational institutions should take the lead in building awareness, dispersing information and knowledge to the industry. Seminars, workshops, and articles in major publications would assist.

Innovative businesses that have implemented environmental processes should be recognised, publicised and rewarded. They could be recognised through reduced insurance premiums, membership fees and marketing opportunities. Stronger
emphasis should be placed on businesses that implement global warming practices in regard to accreditation and industry awards.

7. CONCLUSION

7.1 A World Issue

The warming of the planet is a world problem, with more far reaching impacts than the Great War and Man Landing on the Moon. Man must prepare to put processes in place to allow a smooth transition into an environment that will be quite different to the one that is known today. In order to arrest the severity of this change and to stem further damage there must be a shift in the worldview. Governments must work together to implement changes in this decade.

7.2 Public Awareness

Public awareness is low and people do not fully understand the gravity of decisions made today, for if they were aware they would make every effort to ensure that action is taken now.

Governments have a protective self-interest attitude in keeping details from the public, to avoid the pressure that would be placed on them to act more strongly on these issues?

If there were public awareness, would large corporations still have the same power to control the speed at which these issues are addressed? The media is also relatively silent. ‘An energy revolution is possible and necessary and can only occur when power shifts away from capital and into the hands of the people where it belongs’ (Sweeney, 1997, p. 5). Will the next revolution be the Energy Revolution?

7.3 Leaders of Change

Governments, Industry Associations, businesses, and the general public all have a role to play in addressing global warming. From all levels must come strong leadership, cooperation, collaboration and working together to address global warming?
Tourism Industry Associations must show leadership in drawing the industry members together to initiate discussion and decision-making, research and training, and develop relevant guidelines for feasibility and impact studies. They must lobby governments and encourage members to become involved in supporting initiatives to test and development cleaner fuels and technologies.

To insure a viable future for the Tourism Industry, efforts must be taken now to be involved in slowing down the acceleration of global warming and also to prepare for the irreversible effects that are already inevitable.
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USEFUL INTERNET SITES FOR FUTURE REFERENCE ARE LISTED BELOW

www.greenhouse.gov.au
www.environment.gov.au
www.csiro.au
www.grida.no/climate/ipcc
www.upei.ca