ADVENTURE TOURISM, CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT

The effects of climate change and the challenges of creating sustainable businesses are affecting all industries today, but have special relevance to the health and long-term growth of the adventure tourism industry.

To support policymakers and businesses developing and implementing tourism market strategies to meet these challenges, this brief:

- Examines in detail how climate change will affect destinations and tourist traffic patterns; and
- Discusses principles of sustainable development and how they can be applied in the adventure tourism context.
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CLIMATE CHANGE AND THE ADVENTURE TOURISM INDUSTRY

Changes in climate, and the implications these changes have for destinations reliant on natural resources - whether resources used for industrial purposes or those critically important to the viability of industries such as tourism – will have significant economic impacts in the coming years. For the tourism industry, which simultaneously suffers from the effects of climate change as well as contributes to it, climate change presents unusual and complex policy and business development challenges.

The adventure industry in particular, with its reliance on natural resources and its multitude of businesses offering trips in extreme environments – polar, marine, mountain, tropical - is experiencing the effects of climate change well before many mainstream tourism businesses, and as a result is facing policy and business development challenges sooner.

PREDICTING TRAVEL PATTERNS IN THE NEW CLIMATE

Climate and local natural conditions are significant factors in the choice of many holiday destinations, and while it is expected that climate change will not affect the amount of travel taken in the future, it is expected to affect the choice of destinations and where expenditures will occur. Natural environments such as snow- and glacier-capped mountains, coastal and island environments, beaches, forests, rivers, lakes, deserts and many other beautiful landscapes are already experiencing the impact of climatic changes in varying degrees.

Even as it feels the negative effects of climate change, tourism continues to be a contributor to greenhouse-gas emissions, with its contribution estimated to be approximately 5% of the total in 2005. To help counteract this, the Davos Declaration on Climate Change and Tourism set the goal to reduce these emissions and allow the industry to grow in a sustainable manner through the adoption of a carbon-neutral strategy.
HOW CLIMATE CHANGE AFFECTS TOURISM

There are four complicated interactions between tourism development and climate change, ranging from natural, external phenomena to those resulting from human behaviors:

1. Direct impact from weather phenomena caused by warming: destruction wrought by floods, storms, fires and drought, glacial lake overflows, the disappearance of beaches and so on.

2. Indirect, long-term impacts resulting from a substantial and lasting alteration of the environment of a tourist destination that reduces its attractiveness (polluted waters, receding forests, decreased biodiversity, retreating glaciers and snow caps, etc.).

3. Lifestyle changes, causing, for example, the reorientation of tourism flows both in winter and summer.

4. Induced impacts, which include the efforts of individuals and public policies aimed at attenuating the effects of warming that produce a series of consequences for tourism activity: for example, the adoption of new, more energy-efficient technologies, increased transport costs, product-diversification efforts aimed at prolonging a season and reducing vulnerability, etc.

Given the complexity of these interactions, we can see that climate change will produce winners and losers in the tourism industry in general and for adventure tourism in particular. In contrast to such events like natural disasters and terrorist attacks (and even health issues such as SARS), climate change is not simply a short-term issue; it will permanently alter the attraction of some holiday regions and force them to take adaptive steps over the next few decades.

Eric Heymann, senior economist at Deutsche Bank Research ("DBR") in Frankfurt, Germany, published in April 2008 a research report entitled *Climate Change and Tourism: Where Will the Journey Lead?* Heymann believes the tourism industry will still be a growth engine in the world, experiencing average annual increases of around 3.5% to 4% in international tourist arrivals through 2020, but he also forecasts substantial changes in tourist flows by region and within regions of the world based on a comparative scoring model developed by DBR.
The DBR model compares the most important countries in the mainstream tourism sector to 2030. The model is based on four quantitative and qualitative parameters:

1. Consequences of climatic changes, including substitution effects;
2. Consequences of regulatory measures to slow climate change and/or mitigate its negative effects (in particular, the increase in the price of mobility);
3. Possibility of adaptation to the changing conditions open to individual regions; and

For adventure tourism markets and companies working in close and regular contact with environments and communities shaped by the effects of climate change, anticipating and preparing for environmental shifts such as those predicted by Heymann below is crucial. For example, he predicts:

**In Europe**, countries bordering the Mediterranean, particularly in the eastern Mediterranean, will particularly suffer from climate change as a result of higher temperatures and water shortages in high season. In contrast, those that could gain include the Benelux countries, Denmark, Germany and the Baltic states. France and Italy will be slightly favored because of the diversified structure of their tourism offerings.

**Canada, New Zealand and the U.S.** are the only three countries outside of Europe whose tourist industries may find themselves on the winning side of climate change. In Canada and in the U.S., where tourism is a small contributor to total GDP, the significance of the tourism industry could increase in the coming decades as a result of being “winning” countries.

**Outside of Europe, Canada, New Zealand and the U.S.**, most countries will suffer from climate change, though to varying degrees. Especially for many poorer countries, which are putting great hopes on tourism as a driver of economic development, climate change will bring additional burdens.

In countries and states overly reliant on tourism as a percent of GDP, economic setbacks as a result of climate change could be serious.
Recognizing that climate change will require new approaches to adventure tourism market development at the policy level, and new approaches to business management at the firm level, the next section of this brief explores in detail the subject of sustainable development – what it means in the adventure industry context, and how it can be implemented and its progress measured.
SUSTAINABILITY IN THE ADVENTURE TOURISM CONTEXT

“Sustainability” has become a buzzword applied to almost everything one can think of – sustainable tourism, sustainable agriculture, sustainable mining, sustainable mountain development, sustainable banking and so on. Sustainability itself is based on a comprehensive view of systems as open, dynamic and integrated. It is not a science, although it has scientific components. It is a value-based, ethical precept, which can be applied effectively to a host of problem analyses.

Although sustainable development was originally associated with energy use and environmental issues, it is now recognized as a dynamic framework that contains three equally important elements with clear links to adventure tourism:

1. Environment
2. Economy
3. Society

Chris Butters, a well-respected theoretician on evaluating and measuring sustainability, offers the following definition: “Broadly defined, we can say that sustainability means positive social and economic development on a long-term basis within the framework of the carrying capacity of the earth’s ecosystem.” Adventure tourism businesses, operating in close contact with the environment and local communities, must be even more attuned to the core principles of sustainable development.

Creating Sustainable Adventure Tourism Policies and Businesses

Research by the World Bank and PricewaterhouseCoopers comparing corporate social responsibility (“CSR”) practices across industry sectors shows tourism lagging behind other industries.

A 2003 World Bank review of company codes of conduct and international standards across sectors concluded: “Of all the industry sectors examined in this project, the tourism industry was the least ‘developed’ both in terms of CSR initiatives and codes of conduct. Very few codes of conduct were identified akin to those used in the light manufacturing and textile industry, the agribusiness sector, or the ‘principles’ used in lieu of codes of conduct in the extractive industries. Although some firms have carved out a specific niche in providing tourism services with a focus on environmental conservation, and other multinationals have put in place specific practices and programs which are socially or environmentally responsible, the use of codes of conduct is far from widespread in the tourism sector.” (Company Codes of Conduct and International Standards: An Analytical Comparison. World Bank Group Corporate Social Responsibility Practice, IDRB/World Bank.)
Advocates in the adventure tourism industry are making an effort to organize, aggregate and promote the best practices developed by individual adventure tourism firms up to the industry level. Standards for sustainable adventure market development are currently being developed and promoted by a team made up of people from the Adventure Travel Trade Association, George Washington University, and Xola Consulting, Inc. Still in their infancy, the principles of sustainable development for adventure tourism have been organized into an Adventure Tourism Development Index according to the 10 Pillars of Adventure Tourism Market Competitiveness:

1. Government Policy
2. Safety
3. Health
4. Natural Resources
5. Cultural Resources
6. Adventure Resources
7. Entrepreneurship
8. Humanitarian
9. Infrastructure
10. Image

More information about the Adventure Tourism Development Index can be found at http://www.gwutourism.org/iits/ATDI.htm.

Modifying the Core Adventure Tourism Business Model

When it comes to creating businesses that meet the challenges of changing travel patterns due to climate change and address consumer demand for sustainable, conscientious products and services, adventure companies with their close ties to local communities and the environment can take advantage of an unusual market opportunity. More easily than many mainstream tourism businesses, adventure companies can easily move away from traditional philanthropic-oriented programs to directly integrating development concerns into their core business models.

According to the authors of a 2007 study entitled The Role of the Tourism Sector in Expanding Economic Opportunity, published by the Corporate Social Responsibility Center at Harvard University’s Kennedy School of Government, this can reduce business risk, enhance a wide array of stakeholder relations, and, in some cases, enable to development of new products and business opportunities.
Its recommendations are easily applied in the adventure tourism context and include the following:

**Lessons for the Tourism Sector**

- Shift mindset and create a corporate culture that actively seeks to develop business approaches that expand economic opportunity throughout the value chain;
- Focus on employment and training to support local economies;
- Improve procurement practices to grow business with local farmers and small enterprises;
- Link tourists to local cultural products and experiences;
- Pay attention to the distribution patterns of tourism-related economic opportunities so that they reach smaller local enterprises;
- Collaborate with others to maximize economic development impact and to enhance efficiency; and
- Share best practices with others in the tourism industry.

**Lessons for Governments**

- Encourage inclusive business models through regulatory and fiscal policy and public contracts;
- Build public-private partnerships to increase training capacity;
- Partner with the national tourism sector to facilitate the shift to inclusive business models and greater development impact;
- Create a conducive environment for small and micro enterprises; and
- Engage at local and provincial levels, not just national.

Though questions remain as to how tourism companies can change business practices in ways that make long-term commercial sense and still deliver greater benefits to the poor and the environment, important examples are emerging from the adventure sector.
Recognizing Leaders in Sustainable Tourism
National Geographic’s Center for Sustainable Destinations, in collaboration with Ashoka’s Changemakers (changemakers.net), created the “Geotourism Challenge: Celebrating Places/Changing Lives,” to discover and support entrepreneurs with innovative approaches to geotourism, defined as tourism that sustains or enhances the geographic character of a place – its environment, aesthetics, heritage and the well-being of its residents.

Launched in January 2008, the competition received 323 entries from 84 countries, with 15 finalists announced at the end of May 2008. Not surprisingly, the 15 finalists in the Geotourism Challenge included several adventure tourism operators:

3 Sisters Adventure Trekking (Nepal): Using the positive aspects of tourism to create equity for local women and bring revenue to the poorest areas of Nepal.

Blue Ventures Conservation, Madagascar: Using paying volunteer programs as a strategy to protect threatened marine resources.

Banyan Tree Hotel, Maldives: Creating a marine lab to protect, conserve, research, and educate about the coral reef environment.

CC Africa, South Africa: Pioneering land and wildlife conservation, and giving local rural communities a meaningful share of the benefits.

Chumbe Island Coral Park, Ltd., Tanzania: Creating a financially, ecologically and socially sustainable model to save the country’s coral reefs.

Crete’s Culinary Sanctuaries, Greece: Offering seminars for organic farmers, chefs, historians, mountaineers and other locals to share their knowledge about Crete’s culture and nature with visitors.

Eco-Health Farms, Latvia: Integrating ancestral traditions, nature protection and health prevention.

Evason Phuket & Six Senses Spa, Thailand: Setting up an eco-trail that shows locals and guests the resort’s environmental practices.

Exotica Cottages, Dominica: Integrating local expertise in gardening and conservation into the island’s ecotourism efforts.

Great Baikal Trail, Russia: Establishing Russia’s first system of hiking trails to promote environmentally sustainable development.

Rainforest Restoration and Sustainable Community Development (Costa Rica): Protecting the Costa Rican rainforest by empowering and engaging local communities of native Cabecar Indians and hiring them to manage its eco-lodge and sustainable farming projects.


Snow Leopard Conservancy India Trust, India: Changing local mindsets towards snow leopards.

Tourism Board of Bhutan, Bhutan: Making geotourism development a national policy.
Yachana: Geotourism Lodge and School, Yachana Foundation (Ecuador): Providing practical, hands-on education for Ecuadorian youth in the Amazon.

In June 2008, the three winners were chosen: 3 Sisters Adventure Trekking (Nepal); Rainforest Restoration and Sustainable Community Development (Costa Rica); and Yachana: Geotourism Lodge and School (Ecuador). Each of the three winners, chosen through online voting, received a $5,000 award.

National Geographic Adventure magazine’s recognition of The Best Adventure Companies on Earth further supports the industry’s application of sustainable practices, given its selection of top companies according to the following criteria:
- Education provided to clients
- Sustainability
- Quality of service
- Spirit of adventure
- References

Results for 2009 can be found at www.ngadventure.com/ratings.
MEASURING SUSTAINABILITY AND QUANTIFYING TOURISM’S ECONOMIC BENEFITS

Many different means of measuring sustainability success over the last decade have been developed, though there is no one method that has been universally adopted. The overall approach is called “triple bottom line” or TBL, which is used to capture the three elements for measuring organizational and societal success: economic, social and environmental. In the private sector, a commitment to corporate social responsibility (“CSR”) implies a commitment to some form of TBL reporting. Some measurement tools are industry-specific while others have focused on specific regions of the world.

Over the last eight years, there have been a variety of attempts to develop tools for measuring and monitoring sustainable tourism development projects. The most recent effort to develop a framework for sustainable tourism assessment was produced in 2007 by Lucian Cernat and Julien Gourdon under the auspices of UNCTAD and titled: Is the Concept of Sustainable Tourism Sustainable: Developing The Sustainable Tourism Benchmarking Tool (“STBT”). This methodology is intended to create sustainable tourism benchmarks based on a generally applicable and consistent set of indicators that allow for comparability of results across tourist destinations.

The methodology uses seven key assessment dimensions, with each dimension assigned indicators to capture essential aspects of each dimension: tourism assets; tourism activity; tourism-related linkages; tourism-related leakages; environmental and social sustainability; overall infrastructure; and attractiveness.

In adventure tourism very few policies exist at national levels to link adventure tourism markets with improvements in areas of social and environmental concern.

A key issue that crops up frequently in the analysis of tourism’s economic impacts is that of “financial leakage.” Financial leakage in a country’s tourism sector is when revenues arising from tourism-related economic activities in a destination country are not available for (re)investment or consumption of goods and services in that same country.
A white paper entitled Leakage claims: Muddled thinking and bad for policy? published by the Overseas Development Institute (“ODI”) in June 2007 argues that current “leakage” analysis uses muddied thinking and poor arithmetic to generate the wrong answer to the wrong policy question. ODI believes that the exaggerated claims divert attention from an important challenge of boosting the linkages between tourism and the rest of the local economy. The paper states that the use of the term ‘leakage’ conveys the impression that a host economy is somehow entitled to 100% of the revenue of the global value chain between source and destination markets, while in practice, producers never capture the entire value chain.

The paper states that a major problem is how “leakage” is measured:

“Payments for imported food or expatriate managers are a financial flow out of the destination economy. However, substantial payments in tourism are for services provided outside the destination country. Marketing, insurance, retailing, packaging and long-haul flights are often 50% to 70% of total package cost and are normally provided by western tour operators and airline companies. Regarding this as a ‘leakage’ is like suggesting that staff and accommodation costs for serving a cappuccino in a London café are ‘leakage’ from coffee plantations in Ethiopia!”

Additionally, the paper argues that another major problem with ‘leakages’ has been the use of the wrong denominators and numerators in their calculation: the use of a package price, as opposed to the total holiday cost, for the denominator is inappropriate. Research estimates that out-of-pocket spending, which is not included in a package price, can be around one-third of the total holiday cost, and it is exactly this component that is most likely to stay local. In addition, the numerator should exclude payments made for goods and services that are not provided at the destination and should not be claimed as ‘leakages.’
SUMMARY OBSERVATIONS ON SUSTAINABLE ADVENTURE TOURISM

Responsible adventure tourism includes the triple bottom-line approach to sustainable tourism management; a way of traveling by consumers; a highly specific, tailored solution to particular cultures, places and organizations; transparency to participants in the value chain; and a better experience for all participants.

The responsible tourism approach achieves sustainable tourism while creating better places for people to live in and for people to visit. It also recognizes that dialogue, partnerships and multi-stakeholder processes – involving government, business, and local communities – can only ultimately be realized at the local level in order to ensure that this goal is achieved.

Thus, there is a shared responsibility for implementing sustainable adventure tourism:

• Industry by promoting voluntary integration of environmental and social good practices in their business operations;
• Governments (including local authorities and protected area managers) by integrating environmental, social and economic objectives into tourism policies and plans and providing the ‘enabling’ environment for private-sector initiatives; and
• Consumers by demanding/expecting sustainable tourism products and being a ‘responsible’ traveler.

Sustainability approaches have not yet been implemented by the vast majority of businesses that comprise the overall tourism industry. In the adventure industry, while guidelines within the industry are emerging, the implementation, monitoring and evaluation mechanisms are still very weak.

On a positive note, the efforts of larger tourism organizations as well as various certification programs are enabling companies to reduce costs, mainly related to the environment (water, waste and energy savings). These cost savings or training aids have helped improve management practices and processes, resulting in potentially wider recognition of the importance of sustainability.
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