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Now in its fourth year, the 2011 Adventure Tourism Development Index (ATDI) assesses adventure tourism potential for countries around the world. The purpose of the ATDI is to facilitate environmentally and culturally sustainable adventure tourism policy and planning for the benefit of national and local economies. The index uses 10 pillars to gauge a country’s readiness to compete in the adventure tourism sector. Scores do not reflect a country’s current popularity or market presence in adventure tourism, although in some cases a country’s current appeal may correspond with its ATDI score.

Tourism has a tremendous impact on the world economy. According to the World Travel & Tourism Council (WTTC), tourism’s direct contribution to GDP in 2011 was US $2 trillion. When taking into account tourism’s direct, indirect and induced impacts, the industry generated one in 12 of the world’s jobs. Tourism also continues to grow despite economic difficulties in many of the world’s largest tourism markets. Its contribution to GDP grew by 3% in 2011 and is expected to grow by 2.8% in 2012 (World Travel & Tourism Council, n.d.)

As a sector, the adventure travel category of the tourism industry is in a growth phase, charting a 17% increase in receipts between 2009 and 2010. It reached an estimated 26% penetration (1 in 4 trips includes an adventure travel component) in 2010; if growth continues according to present modeling, adventure could be 50% of all reasons to travel by 2050. The sector is also a source of growth for tourism businesses. An Adventure Travel Trade Association (ATTA) Industry Report found 79% of tourism boards reported that the adventure tourism private sector had begun to emerge and/or grow in their destination (Adventure Travel Trade Association Industry, 2011). The ATTA also found that 63% of adventure tour operators reported an increase in total gross revenue in 2011 and the average revenue increased by 17.3% (ATTA, 2012).

Recognizing the potential of nature and adventure tourism, many countries are prioritizing the segment in terms of developing important environmental policies which ultimately provide the foundation for adventure travel, and emphasizing adventure and nature in their national marketing. Some notable examples include:

- Ecuador, which is preserving biological diversity and indigenous culture in Yasuni National Park rather than mining its 846 million barrels of heavy crude resources, and is the first nation to include a Rights of Nature in its constitution (Robbins, 2012).
In terms of adventure marketing,

- Norway capitalizes on its towering fjords and glaciers with the slogan “Norway, Powered by Nature;”
- Greenland emphasizes its ruggedness with “Greenland, Be a Pioneer;”
- New Zealand touts its mountains, wildlife and hiking with “100% Pure New Zealand;” and
- Slovenia beckons with hiking, mountains and caves in its “I Feel Slovenia” campaign.

**Recent Adventure Travel Business Trends**

Recent business trends, which are shaping the industry are discussed briefly below.

**Itineraries**

Adventure tour operators continue to expand itineraries to cater to travelers seeking more unique destinations and experiences. The average number of distinct itineraries offered increased 24.4% from 57.9 in 2011 to 72 in 2012 (ATTA, 2012). Areas as remote as the fabled Northwest Passage have begun to attract visitors, and travelers and tour operators alike are searching for emerging countries and attractions that have yet to reach mass appeal.

**Marketing**

As the demand for adventure tourism increases and spreads across a greater number of destinations, internet marketing is growing in importance. The largest increases in tour operators’ 2012 marketing budgets were in search engine optimization and social media. On average, tourism operators reported an increase of 17% to their search engine optimization efforts, an indication of the need to reach targeted affinity groups at the research stage of their purchasing cycle. Tour operators also reported an increase of 16% to their social media budget (ATTA, 2012). With numerous social media outlets to share their opinions with growing audiences, consumers have never had more power to promote or disparage a destination or enterprise. Tourism marketers are recognizing the need to shape and guide the discussion to maximize the benefits of social media marketing.
Unlike other types of tourism products and services, adventure tourism has been slow to take advantage of online channels for distribution. As a classic “long tail” sector, adventure tourism’s vast global inventory of activities and accommodations is fragmented and highly changeable. Many of the world’s adventure tourism activity and service providers do not maintain a website because of their remote location, limited marketing expertise or difficulty in simply accessing the Internet. In addition travelers – in cases where they have the option of booking adventure travel online – have been reluctant to do so because of perceived risks associated with the trip itself, or a lack of comfort booking something as complex as a multi-stage adventure excursion over the internet. Given these realities, the adventure travel sector has presented many difficulties for technology companies entering the industry with an online distribution service.

This is changing, however. One company that provides a booking engine service for adventure companies noted that the number of travelers accessing tour operator websites to book trips increased from 8% to 18% between 2010 and 2011. And a plethora of new companies as well as established online travel retailers have entered this category with online distribution platforms, which organize offerings and help promote them in new ways (Heyniger, 2012).

About the Adventure Tourism Development Index

The Adventure Tourism Development Index (ATDI) is a joint initiative of The George Washington University (GW), The Adventure Travel Trade Association (ATTA) and Vital Wave Consulting. Now in its fourth year, the ATDI offers a ranking of countries around the world based on principles of sustainable adventure tourism. The rankings are calculated through a combination of expert survey data and quantitative data gathered from international indices.

With the goal of promoting and informing sustainable development of adventure tourism, the ATDI was created to support entrepreneurs and governments who want to create and market sustainable adventure tourism products and services while benefiting communities and the environment.
The Adventure Travel Trade Association promotes the ATDI program to industry and governments and supports its expansion; George Washington University continues to refine the technical methodology and calculate the scores each year; Vital Wave Consulting supports the program with project management, data analysis and report writing, and continues to apply ATDI’s ten principles in its qualitative work with destinations striving to create or enhance their adventure markets.

The ATDI is overseen by an advisory board made up of government and private sector representatives from the global adventure travel industry.

What is adventure tourism?

Tourism is defined as travel outside a person’s normal environment for more than 24 hours and not more than one consecutive year. A trip may be classified as an “adventure” trip if it involves two of the following three elements: (1) interaction with nature or (2) interaction with culture or (3) a physical activity, while the core of adventure is a trip which involves all three elements. Adventure travel trips could include white-water rafting, hiking, and birdwatching in Colorado; or mountain biking in Oaxaca, Mexico with visits to local communities to learn about traditional weaving practices (ATTA, The George Washington University, & Xola, 2011).

As entrepreneurs, tour operators and destinations create new, innovative product offerings, adventure tourism will continue to encompass more types of activities and trips. Furthermore, traditional leisure trips are increasingly adding elements of adventure tourism to their itineraries, perpetuating its influence on the world of travel. As adventure tourism evolves, the ATDI hopes to continue the discussion of what political, environmental, social, and economic elements drive a country’s successful adventure tourism development.
We encourage feedback on the ATDI and information about how it is being used in your country. Please contact us at atdi@gwu.edu or visit our webpage at www.adventureindex.travel.

### 2011 Rankings Summary

The ATDI ranks countries in two categories: developed and developing, based on the country’s UN designation. The top ten countries from 2011, 2010 and 2009 are shown below.

<table>
<thead>
<tr>
<th>Developing Countries</th>
<th>2011</th>
<th>2010</th>
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<tbody>
<tr>
<td>Chile</td>
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<th>Developed Countries</th>
<th>2011</th>
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<td>Spain</td>
<td>Spain</td>
<td>Germany</td>
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### Ranks & Clusters

From year to year the individual rankings in the ATDI shift based on individual country scores in each of the categories. In addition to country rank, however, countries are encouraged to consider their cluster. There are three clusters: High, Medium and Low. In the data sheet, posted at www.adventureindex.travel, the mean score is highlighted in Blue. Countries in the top quartile are part of the “High” cluster and are highlighted in Green. Countries in the bottom quartile are part of the “Low” cluster and are highlighted in yellow. These groupings represent nations with similar scores and therefore a country’s competitive set. Countries ranked “Medium” or “Low” should aim to move into the “High Category,” as this is where the most competitive adventure destinations reside.
The table below provides a comparison of countries in the High ranking cluster

<table>
<thead>
<tr>
<th>Developed Countries</th>
<th>Developing Countries</th>
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<tr>
<td>Switzerland</td>
<td>Lithuania</td>
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<td>New Zealand</td>
<td>Botswana</td>
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<tr>
<td>Canada</td>
<td>Turkey</td>
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<td>Kyrgyz Republic</td>
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<td>Uruguay</td>
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<td>Cape Verde</td>
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<td>Singapore</td>
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<td>Peru</td>
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<td>Barbados</td>
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<td>Chile</td>
<td>Czech Republic</td>
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<td>Slovak Republic</td>
<td>Costa Rica</td>
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<tr>
<td>Israel</td>
<td>Croatia</td>
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<tr>
<td>Estonia</td>
<td>Rome</td>
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<tr>
<td>Bulgaria</td>
<td>Lithuania</td>
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<tr>
<td>Slovenia</td>
<td>Latvia</td>
</tr>
<tr>
<td>Poland</td>
<td>Kyrgyz Republic</td>
</tr>
<tr>
<td>Korea, Rep.</td>
<td>Uruguay</td>
</tr>
<tr>
<td>Hungary</td>
<td>Cape Verde</td>
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<tr>
<td>Croatia</td>
<td>Singapore</td>
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<tr>
<td>Romania</td>
<td>Peru</td>
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<td>Barbados</td>
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<td></td>
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<tr>
<td>Comparing the Top Countries in Both Groups</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Switzerland</th>
<th>Chile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Development Policy</td>
<td>8.55</td>
<td>7.18</td>
</tr>
<tr>
<td>Safety</td>
<td>8.65</td>
<td>7.52</td>
</tr>
<tr>
<td>Health</td>
<td>3.26</td>
<td>1.83</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>6.75</td>
<td>7.16</td>
</tr>
<tr>
<td>Adventure Resources</td>
<td>8.88</td>
<td>8.59</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>9.45</td>
<td>8.99</td>
</tr>
<tr>
<td>Humanitarian</td>
<td>5.32</td>
<td>4.03</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>6.12</td>
<td>5.00</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>7.13</td>
<td>6.51</td>
</tr>
<tr>
<td>Image</td>
<td>7.53</td>
<td>8.12</td>
</tr>
</tbody>
</table>

Chile and Switzerland ranked first in their respective groups. Chile scored higher than Switzerland in two pillars: Natural Resources and Image. Chile’s 6,435 km of coastline gave the country a strong advantage in the Natural Resources pillar against land-locked Switzerland. Chile also had significantly lower population density with 22.8 people per square kilometer compared to Switzerland’s 183.9 people per square kilometer. Image scores are based on expert’s perception of a country’s status as an adventure destination. Switzerland also scored only slightly higher than Chile in Adventure Resources but scored considerably higher in Sustainable Development and Health.
Country Ranking Highlights

Improving adventure tourism potential is a long-term process requiring careful planning and sound policy. The 2011 ATDI saw the same top five countries as 2010 from both the developed and developing nations, reflecting the difficulty of breaking into the ranks of the top countries. However, there are several countries that have been steadily emerging as high potential destinations over the last few years.

Among developed nations, Norway and Finland ranked 6th and 7th respectively, scoring just outside of the “High” cluster cut-off. This is a considerable improvement from 2009 when Norway ranked 12th among developed nations and Finland 14th. Norway performed strongly in the Sustainable Development pillar where it ranked 2nd among developed nations. Norway also had substantial improvement in the Adventure Resources pillar where it improved from 18th among developed nations in 2010 to 3rd in 2011. Finland ranked 2nd among developed nations in the Safety pillar, and had improvements in the Health and Adventure Resources pillars.

Poland and South Korea have seen similar increases among developing nations. Both countries ranked in the top ten developing nations for the first time in 2011. South Korea went from 30th in 2009 to 9th in 2011, and Poland went from 26th in 2009 to 8th in 2011. Poland had sizeable increases in the Sustainable Development and Health pillars, and ranked 5th among developing nations in the Humanitarian pillar. South Korea had impressive gains in the Sustainable Development and Natural Resources pillars, and ranked 4th among developing nations in the Health pillar.

Biggest Movers

The table below shows the countries that have moved the most positions in the ATDI rankings.

<table>
<thead>
<tr>
<th>Developed Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country</strong></td>
</tr>
<tr>
<td>Australia</td>
</tr>
<tr>
<td>Japan</td>
</tr>
<tr>
<td>Iceland</td>
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<tr>
<td>Sweden</td>
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<tr>
<td>Ireland</td>
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<tr>
<td>Spain</td>
</tr>
</tbody>
</table>
Perhaps the most interesting among the biggest movers in the developed countries group are Japan and Spain.

Japan improved four positions to rank 10th in 2011. Its biggest improvement came in the Natural Resources pillar where it moved from 17th in 2010 to 9th in 2011. The move was largely impacted by Japan’s slight decrease in population density, fueled by Japan’s negative population growth rate of -1.0% in 2010 (U.S. Department of State, 2012). Most developed countries continue to have a small population growth, increasing their relative population density.

Spain decreased eight positions to rank 19th in 2011. Spain’s largest decrease came in the Adventure Resources pillar, where it dropped 20 positions to rank 24th in 2011. The drop was due to the country’s large increase in threatened species on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species. The increase was primarily in threatened plant species, which saw a dramatic overall world increase in 2011 (International Union for Conservation of Nature Red List of Threatened Species, 2012).

### Developing Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>2011 ATDI Rank</th>
<th>Rank Change from 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kuwait</td>
<td>59</td>
<td>+64</td>
</tr>
<tr>
<td>Micronesia</td>
<td>61</td>
<td>+63</td>
</tr>
<tr>
<td>Montenegro</td>
<td>60</td>
<td>+43</td>
</tr>
<tr>
<td>Cape Verde</td>
<td>22</td>
<td>+30</td>
</tr>
<tr>
<td>Mauritius</td>
<td>27</td>
<td>+30</td>
</tr>
<tr>
<td>San Marino</td>
<td>109</td>
<td>+30</td>
</tr>
<tr>
<td>Saint Kitts and Nevis</td>
<td>112</td>
<td>-54</td>
</tr>
</tbody>
</table>

Many of the biggest movers in the developing countries group had significant movements due to the addition of qualifying data that was unavailable for the 2010 report. ATDI assigns countries with missing data a score of one, which can considerably impact a country’s ranking. These movements should not be completely discounted, however, as these countries are now more accurately ranked and were artificially low in previous years due to the missing data. A lack of qualifying data also led to the large fall of Saint Kitts and Nevis. It was ranked 19th among developing nations in the Entrepreneurship pillar in 2010, but plummeted to the bottom of the category in 2011 due to the absence of an Economic Freedom Index score.
Methodology

Countries recognized by the United Nations are benchmarked in the ATDI and are represented in two groups: Developed Countries and Developing Countries. ATDI 2011 includes 28 Developed countries and 163 Developing Countries.

Missing Data

Countries with missing data points were given a score of one, with the exception of the Environmental Performance Index (EPI) where the average regional score was substituted. However, if more than five data points were missing the country was dropped from the ATDI calculations. Twenty-two countries (11.5% of the total) had at least one missing data point, but only four had more than five missing data points, and, therefore, were dropped from the ATDI. All of the 18 countries remaining with partial missing data were ranked below average in the Medium or Low groups.

- Overall, 191 countries are ranked in the ADTI.
- The following countries were not ranked in 2011: Niue, Nauru, Tuvalu and the Holy See (Vatican).
- The ATDI uses a combination of third-party data and expert opinions. The composition of each pillar is provided in the Excel Workbook (available on www.adventureindex.travel).

Changes in Methodology

There were no changes to the ATDI methodology in 2011.

Expert Panel

ATDI uses a panel of industry experts to help determine select pillar scores. Experts are people with more than five years of experience in the adventure travel industry. They are able to comment on any countries that they have visited in the past five years. One expert may comment on several countries. The ATDI uses a three-year moving average of expert survey results. If a country does not have three years of expert survey results, the ATDI uses an average of the available data (for example, if Switzerland only has expert survey results for 2011 and 2009, the ATDI takes an average of those two years).

In 2011, the ATDI had a panel of 189 experts. The 2011 experts were 43.5% female and 56.5% male. The experts had on average 12 years of experience in the travel and tourism sector and 10 years of experience in the adventure tourism sector. 66% were tour operators, 6.8% were travel writers, and 0.7% were travel developers. The remaining 26.5% worked in hospitality, consulting, destination management organizations, or other tourism industry positions. If you would like to be considered to join the 2012 ATDI expert panel, please contact us at atdi@gwu.edu.
The ten pillars are categorized into three factors: Safe and Welcoming, Adventure Resources, and Readiness. The calculation method used in the ATDI has been adjusted to weigh more heavily those pillars with specific importance to adventure travel market competitiveness:

- Entrepreneurship
- Adventure Activity Resources

The graphic below illustrates the organization of the 10 pillar principles into categories.
Ten Pillars of Adventure Tourism Competitiveness

This section describes the ten pillars and provides information about how the quantitative scores for countries were derived for each pillar.

1. Sustainable Development Policy

Government policies that support and foster sustainable and rural tourism development are crucial to adventure tourism market competitiveness because they safeguard the destination’s natural, heritage and cultural resources and provide a positive investment climate for the private sector. When public and private sector actions are coordinated, the private sector flourishes, attracting investment and development to a region. To assign a quantitative value to government policies supportive of sustainable tourism, the team used the following two indicators:

1. The Environmental Protection Index
2. Unemployment per country (as a % of total labor force)

Rationale: High environmental performance and low unemployment create a favorable climate for sustainable development, and government policies are an important factor in driving country performance in these areas.

2. Safety and Security

With respect to safety, the ATDI numerical benchmarks gauge how safe it is to travel in a country. The Safety Pillar is made up of two indicators and an expert opinion question:

1. The Corruption Perceptions Index
2. Foreign and Commonwealth Travel Warnings
3. Expert Opinions

Rationale: Countries with high levels of transparency and low or no travel warnings issued are safer for travelers. Lower levels of corruption are also a sign of a more secure country.

When the ten pillar framework is used diagnostically for adventure destination development, the Safety and Security pillar assesses the degree to which adventure operators provide for the safety of travelers, and also whether facilities exist to cope with travel-related injuries. For example, in destinations where scuba diving is popular, do hyperbaric chamber facilities for decompression exist? In destinations where mountaineering is popular, are rescue operations available? Do guides have first aid training? Generally, does the level of client safety offered meet internationally accepted standards?
In 2009, the ATDI methodology added a survey question that was put to the expert panel. The question asked panelists to rate “Your perception of this destination as safe and secure for travel” on a Likert scale of -3 (very poor) to +3 (very good). This allows country experts to assess real risk to travelers from firsthand knowledge.

3. Health

The Health Pillar attempts to gauge the level of healthcare available in a country. This is important for two reasons:

1. A healthy local population is more able to foster and nurture new businesses, and to care for its resources responsibly.
2. Countries where healthcare is readily available are better able to support adventure travelers.

The Health Pillar is made up of two indicators from the World Health Organization:

1. Hospital beds (per 1000 people)
2. Physicians (per 1000 people)

Rationale: A high proportion of beds and physicians suggests higher levels of healthcare.

4. Natural Resources

Adventure travelers want untrammeled and well-managed natural resources. Destinations with unusual or rare natural resources, which are well-managed and not exploited, will earn high praise from adventure travelers and sustained market competitiveness. The Natural Resources Pillar is made up of four indicators and an expert opinion question:

From the World Resources Institute:

1. Urban Concentration
2. Population Density

From CIA World Factbook:

1. Kilometers of coastline
2. Ratio of coast to total area
Additionally, in 2009 the ATDI added a survey question that asked panelists to rate their perception “regarding the variety of natural resources at the destination” on a Likert scale of -3 (very poor) to +3 (very good).

One provision was made to accommodate Canada’s vast amount of coastline. The country’s coastline was rated at 5,500 (the highest number) instead of its actual score. This rescaling of the outlier data did not significantly impact the country’s ranking, but created a much better distribution of the other countries around the mean.

**Rationale:** Places with more unpopulated space are likely to have greater natural resources for adventure tourism. When the ATDI is applied diagnostically, emphasis is placed on discovering and valuing natural resources with fresh eyes that local populations may have overlooked as having a market value in the adventure tourism context.

5. **Cultural Resources**

Adventure travelers are as keen to learn about new cultures as they are to explore nature. For the adventure traveler, being able to experience local culture in an authentic way is a sought-after outcome of the travel investment. Destinations which encourage local people to preserve their culture — even as modern influences continue to shape and evolve local customs — fare well with adventure travelers. In valuing cultural resources the ATDI seeks not to encourage local people to become living museums to the past or actors staging outdated customs, but to acknowledge and honor their customs, recognizing their unique contribution to the world stage. The Cultural Resources Pillar is made up of two indicators and an expert opinion question:

1. UNESCO World Heritage Sites
2. Protected Area as a % of Total Land

**Rationale:** A high number of World Heritage sites and a high number of protected areas indicate a high number of cultural resources.

Additionally, in 2009 the ATDI added a survey question which asked expert panelists to rate their perception of the destination as “culturally rich,” on a Likert scale of -3 (very poor) to +3 (very good).

6. **Adventure Activity Resources**

In this category the ATDI recognizes a destination’s competitiveness relative to its ability to support adventure sports, which span a range of outdoor, nature-based activities — from bird watching to mountaineering; whitewater rafting to rock climbing; caving to paragliding. Destinations with resources lending themselves to the development of a particular sport, for example cliffs excellent for ice climbing or forests with a wealth of bird species, may find themselves with an opportunity for sustained competitive advantage.

Obtaining data, which allows for the uniform comparison of mountain ranges, river systems, and the many natural assets that provide the basis for adventure activities around the world presents a significant challenge. At this time, the Adventure Activities Resources Pillar is made up of two indicators:

1. Threatened Species
2. Forests, Grasslands, Drylands
Rationale: A low number of threatened species and the presence and growth of forests, grasslands and drylands indicate resources for adventure activities.

7. Entrepreneurship

While adventure travel is becoming more established as an industry, its vitality and strength originate from the so-called “fringe” or cutting edge of businesses that will try new activities, take people to new places, and are often first in trying new technologies as they have no status quo to protect.

Given this reality, the ATDI looks for and acknowledges destinations in which entrepreneurship in the business sector is thriving. Any destination in which young businesses can start up and gain traction is likely to be fertile ground for adventure tourism entrepreneurs with innovative ideas, and therefore, more likely to become competitive in the adventure travel market. The Entrepreneurship Pillar is made up of one component containing ten different factors:

1. 2010 Index of Economic Freedom

Rationale: This indicator assesses 10 economic freedoms: Business Freedom, Trade Freedom, Fiscal Freedom, Government size, Monetary Freedom, Investment Freedom, Financial Freedom, Property Rights, Freedom from Corruption, and Labor Freedom — which combined indicate the level of the barriers to entry for new entrepreneurs.

8. Humanitarian

The Humanitarian Pillar is concerned with human development in a country and its link to the desire for adventure travelers to enjoy authentic, unscripted experiences. Adventure travelers frequently seek out opportunities to volunteer in the destinations they visit. Tour operators find themselves looking for non-governmental organization (NGO) and aid organization partners through which they can offer their visitors a short-term opportunity to contribute to relevant causes and also have the chance to see real people in unmanufactured situations.
As the trend toward volunteer tourism and its appeal to adventure travelers continues to build, the ATDI acknowledges that destinations with volunteering opportunities available to adventure travelers are competitive in the larger market for adventure tourism.

The Humanitarian Pillar is made up of three indicators:

1. Happy Planet Index (HPI)
2. NGO Density
3. NGO Presence

Rationale: The factors measured by the HPI (life expectancy, life expectation and ecological footprint), combined with the density of NGOs and NGO presence, combine to indicate organizations working in humanitarian development and the level of a country’s human development.

9. Tourism Infrastructure

Adventure travelers, unlike mainstream package tourists, are frequently less sensitive to deficiencies in hard tourism infrastructure, but perhaps more sensitive than other travelers when it comes to soft tourism infrastructure. While hard infrastructure may take substantial capital investment and years to develop, the soft infrastructure required by adventure travelers can often be developed with comparatively little capital outlay. Tourism infrastructure includes:

1. Hard infrastructure, such as roads, airports, lodging facilities, and trails
2. Soft infrastructure, such as:
   - Trail maps
   - Accessible information on heritage and culture
   - Ground operators and outfitters
   - Training programs for adventure tourism providers such as guides, interpreters, and ecologues
Data for the Infrastructure pillar come from surveys of adventure and development industry experts.

At least three experts rated each country on elements measuring the extent to which the country had appropriate infrastructure to welcome adventure-seeking travelers.

**Example Question:** “Your perception of the availability of appropriate infrastructure for adventure travel in this destination is: very poor to very good”.

The scale provided spanned from -3 (very poor) to +3 (very good). To highlight the fact that the infrastructure required for adventure tourism is often much less extensive than that required for mainstream tourism, the phrase “appropriate for adventure travel” was used.

When the ATDI’s ten pillars are used as framework for diagnostic evaluation in countries or destinations, the team examines both hard and soft infrastructure as it pertains to adventure travelers.

### 10. Image

A country’s image can be one of the most malleable aspects of market competitiveness, but it is also frequently mismanaged as a way of guiding sustainable market development. A country’s image for sustainability and adventure opportunity will attract travelers who value these aspects. Through their visitation and expenditures, these people will support the country’s ongoing sustainable development strategies. The ATDI examines a destination’s adventure travel image.

Data for the Adventure Image Pillar come from surveys of adventure and development industry experts. At least three experts rated each country on elements measuring the extent to which the country has the perception of an adventure destination.

**Example Question:** “Your perception of this destination as an adventure tourism destination is: very poor — very good.” The scaled provided spanned from -3 (very poor) to +3 (very good).
Information and Communication Technologies (ICT) and Adventure Tourism

Although adventure travelers may often emphasize the advantages disconnecting from technology when they take adventure travel trips, businesses in the sector must have access to, and take advantage of, information and communication technologies in order to thrive. Information and communication technologies are relevant for the critical role they play supporting and enabling entrepreneurship.

ICT is considered so important for business and human development that several global indices have been created to help countries understand and evaluate their ICT performance:

- World Bank “Knowledge for Development” Knowledge Economy ranks ICT according telephone, computer and internet penetration;
- Economist Intelligence Unit develops an “e-Readiness” score which assesses the quality of a country’s ICT infrastructure and the ability of its consumers, businesses and governments to use ICT to their benefit;
- World Economic Forum offers its “Networked Readiness Index” as well as the ICT indicator embedded within its Travel and Tourism Competitiveness Index.

Without question, the ability to access and use ICT is crucial for businesses of all kinds, including adventure travel businesses. Technology infrastructure – Internet and mobile communications technologies especially – are perhaps more relevant to adventure tourism market success than ever before given the intensity with which travelers are embracing these technologies at all stages of travel including planning, experiencing the trip, and post-trip story and photo sharing.
The chart below compares the ATDI scores for five countries with their ICT scores as provided by the 2011 WEF TTC index. The ICT indicator represents the following components: extent of business internet use, broadband internet subscribers, internet users, telephone lines, and mobile phone subscribers.

Not surprisingly, countries which rank high in the ATDI also score well in terms of ICT.

Given ICT’s importance in enabling entrepreneurs it is a very important aspect for the development of any destination or adventure business and should not be overlooked by countries seeking to build their adventure travel market.
Country Analysis

Developed Nations

Switzerland

Switzerland remained at the top of the ATDI rankings in 2011, reflecting the country’s strong commitment to cultural and environmental tourism. Switzerland has nearly as large of a network of paths and trails (60,000 kms) as it does roads (71,000 kms), and the government has mapped out cultural routes since the late 1980’s (Mariani, 2012).

Switzerland continued to capitalize on its pristine environment in 2011, promoting its lakes, rivers, and glaciers with its “Year of Water” campaign (Timetric, 2012). Pairing strong tourism planning and marketing with its national adventure ethos, Switzerland has maximized its natural and cultural resources to create the ideal adventure tourism environment.

Switzerland’s success in adventure tourism is built from a strong partnership between the government, private sector, and perhaps most importantly, the Swiss people. The establishment of all Nature Parks requires the vote of people living in the area. As Urs Eberhard, Executive VP Markets & Mice for Switzerland Tourism, states “so far the acceptance has been phenomenal and the people living and working in such areas see the advantages of having their environment and region protected and certified as a Nature Park.” This approach to resource management and tourism development ensures all stakeholders are committed, minimizing resistance and maximizing benefits to local communities.

As the rest of the world becomes more competitive in adventure tourism, Switzerland shows no signs of resting on its previous success. The country hopes to increase the percentage of land designated as Nature Parks from roughly 15% today to 25% in the next two years (U. Eberhard, personal communication, September 3, 2012). SwitzerlandMobility is reaching tech-savvy adventurers with an iPhone App that maps more than 600 hiking, cycling, mountain biking, skating, and canoeing routes (SwitzerlandMobility, n.d.). Culture pulsates throughout the
country’s more than 1,000 museums, the highest per capita in the world (Morgan, 2012). Switzerland’s proactive approach to adventure tourism development has cemented the country’s continued leadership in the ATDI.

Switzerland is ranked number one in the ATDI Sustainable Development pillar. The country scored a 76.69 on the 2011 Environmental Protection Index (EPI), where it also ranked first (Emerson, 2012). Switzerland has set the world standard for air pollution management through the Swiss government’s balance of regulations and economic incentives, such as a 2008 CO2 levy on fossil fuels (European Environment Agency, 2010). Switzerland ranked first in the EPI’s measurements of air pollution, limiting its harmful effects on both ecosystems and human health (Emerson, 2012). Switzerland’s low 2011 unemployment rate of 4.38% is a shining of example of the ability to prioritize sustainable development while maintaining a favorable economic climate (United Nations, 2012).

Switzerland also ranked third among developed countries and first among European countries in the Entrepreneurship pillar, which is solely based on its Index of Economic Freedom rating. The country ranked first in the world in trade freedom, propelled by its weighted average tariff rate of zero. Switzerland also ranked second in property rights upon the strength of its judicial system and respect for intellectual property (The Heritage Foundation, 2012).

Ranked in the top ten of developing countries in eight out of the ten ATDI pillars, Switzerland’s well-balanced approach to tourism development serves a model for the world. The country’s long-term commitment to environmental protection, economic freedom, and an adventure-friendly environment will undoubtedly contribute to its competitiveness in the adventure tourism sector for years to come.

In 2011, tourism directly contributed 2.5% of Switzerland’s total GDP and 3.2% of its total employment. Tourism’s contribution to GDP is expected to rise 1.5% per annum from 2012-2022 and tourism employment is expected to rise 1.7% per annum to 182,000 jobs in 2022 (WTTC, 2012).

Switzerland ranked first in the World Economic Forum’s (WEF) Travel and Tourism Competitiveness Index (TTCI), where it ranked second in environmental sustainability and first in human resources (World Economic Forum, 2012).

New Zealand

Tourism continues to be a major industry in New Zealand, directly contributing to 3.4% of the country’s GDP and accounting for 4.1% of the country’s employment. Tourism’s contribution to GDP is forecasted to rise 2.5% per annum from 2012-2022 and tourism employment is forecasted to rise 1.4% per annum to 439,000 jobs in 2022 (WTTC, 2012).
New Zealand continues to leverage its other-worldly landscapes, which were popularized throughout the world by the Lord of the Rings films. Its new campaign “100% Middle-earth, 100% Pure New Zealand” is directly inspired by the film and cast members comments that the country’s "landscapes actually look fake because you just can’t believe that such places really exist.” (Bowler, 2012) New Zealand also continues to promote and protect its authentic travel experiences by establishing its Qualmark environmental accreditation system and investing $4.5 million in Māori cultural tourism (New Zealand Ministry of Business, Innovation & Employment, 2012).

New Zealand ranked first in the Safety pillar of the ATDI, based on its impeccable reputation as a safe destination and low levels of corruption. It also ranked second among developed countries in the Entrepreneurship pillar, and scored an 82.1 on the Index of Economic Freedom (The Heritage Foundation, 2012).

New Zealand ranked 19th in the WEF TTC. It ranked third in policy rules and regulations but ranked in the bottom half of countries for travel and tourism price competitiveness, which is surprising given its high marks on economic freedom (WEF, 2012).

**Canada**

Tourism directly generated 1.1% of Canada’s GDP and 1.8% of its total employment in 2011. Tourism’s contribution to GDP is expected to increase by 2.9% per annum from 2012 to 2022 and tourism employment is expected to increase by 0.2% per annum to 320,000 jobs in 2022 (WTTC, 2012).

Many international travelers visit Canada to experience its remote wilderness and array of adventure activities. In 2011, more than a quarter of international overnight visitors visited a national or state park on their trip (Canadian Tourism Commission, 2012).

Adventure tourism is an integral part of Canada’s tourism strategy. Included in the Canadian Tourism Commission’s five Unique Selling Propositions is “active adventure among awe-inspiring natural wonders,” and authenticity and exploration are reinforced in all aspects of its tourism brand identity (Canadian Tourism Commission, n.d.).

Canada ranked first in the Natural Resources pillar of the ATDI, bolstered by its 202,080 km of coastline, which is the longest in the world (Central Intelligence Agency, 2012). Canada also has one of the lowest population densities in the world at only 3.42 people per square kilometer (World Resources Institute, n.d.).
Canada ranked 9th in the WEF TCC. The country ranked highly in airport infrastructure, workforce education and training, and policy rules and regulations. It also ranked third in cost to start a business (WEF, 2012).

Germany

In 2011, tourism directly contributed 1.6% of Germany’s total GDP and 1.8% of its total employment. Tourism’s contribution to GDP is expected to increase by 1.4% per annum from 2012 to 2022. Tourism employment is forecasted to decrease slightly by 0.2% per annum to 709,000 jobs in 2022 (WTTC, 2012).

Many travelers visit Germany for its picturesque countryside and 13 national parks brimming with lakes, forests, mountains, and leisure activities (German National Tourist Board, 2012). Most visitors to Germany are from other European countries and over 25% of European visitors to Germany preferred a holiday centered on the countryside, natural attractions, or active pursuits (German National Tourist Board, 2012).

Germany ranked first in the Humanitarian pillar of the ATDI. The country hosts 6,176 NGO’s, which is the most in the world (Union of International Associations, 2012). Germany also ranked second in the Cultural Resources pillar based on its 36 UN World Heritage Sites and high percentage of protected terrestrial area and territorial waters (42.3%) (UNESCO, 2012 and World Database On Protected Areas, 2010).

Germany ranked second in the WEF TTC index. It ranked second in overall business environment and infrastructure, scoring particularly well on ground transport infrastructure. Germany also ranked fourth in both environmental sustainability and cultural resources (WEF, 2012).

Iceland

In 2011, tourism directly contributed 5.2% of Iceland’s total GDP and 5.2% of its total employment. Tourism’s contribution to GDP is expected to increase by 3.6% per annum from 2012 to 2022. Tourism employment is forecasted to increase by 2.6% per annum to 11,000 jobs in 2022 (WTTC, 2012).

Just under half of Iceland’s 2011 visitors came in the summer months, taking advantage of the copious daylight and more favorable climate to explore the country’s plethora of glaciers, volcanoes, and waterfalls. Iceland’s visitor profile skew younger and predominately independent, leading to an adventurous clientele. Nearly 80% of visitors to Iceland stated nature as one of the main factors influencing their decision to travel to the country, and nearly 40% stated culture/history as a factor (Icelandic Tourist Board, 2012).
Iceland dropped three spots in the 2011 rankings, in part due to its decrease in the Sustainable Development pillar, where it went from first among developed nations in 2010 to 13th in 2011. The country ranked first in the Adventure Resources pillar based on its 3.32% increase in forest area coverage from 2005-2010, the highest increase in the world (FAO, 2010).

Iceland ranked 11th in the WEF TTC index. The country ranked second overall in regulatory framework, with high marks for safety and security, and health and hygiene. It also ranked third in human resources and ICT infrastructure (WEF, 2012).

Developing Nations

Chile

In 2011, Chile took the top spot in the ATDI rankings amongst developing countries. Tourism represented a 2.9% direct contribution to the country’s GDP, and is forecasted to rise by 3.9% per annum from 2012 – 2022. Chile’s tourism sector directly supported 2.8% of total employment, and over the next decade is expected to rise by 1.1% per annum to 239,000 jobs in 2022 (WTTC, 2012).

Domestic tourism is a high priority in Chile, representing nearly 81% of travel and tourism spending in the country. International tourist arrivals have been increasing steadily since 2002 and the national tourism board – SERNATUR – has been operating an International Tourism Promotion program since 1995 with a major marketing component focused on nature-based tourism (WTTC, 2012).

Chile ranks extremely high as an attractive environment for entrepreneurs, and its status as the world’s seventh freest economy supports business development initiatives in a stable climate free from much of the corruption common in other countries in the region (The Heritage Foundation, 2012). This combined with a wealth of adventure activity resources make Chile a particularly attractive country for adventure tourism development.

Chile ranked 57th in the WEF TTC index. The country ranked high in Policy Rules and Regulations and Air transport Infrastructure. Chile ranked fifth for Reliability of Police Services, making the country a safer place for tourism than all other countries in the region, which ranked considerably lower (WEF, 2012).
Czech Republic

In 2011, tourism in the Czech Republic represented a 2.8% direct contribution to the country’s GDP, and is expected to rise by 2.4% per annum over the next decade. Tourism directly contributed 4.9% of total employment in 2011, and is forecasted to decrease slightly by 0.2% per annum to 233,000 jobs in 2022 (WTTC, 2012).

While the Czech Republic is well known for its rich history and array of cultural resources such as the UNESCO-recognized historic center of Prague, it also scores highly in terms of its adventure resources. Over one-third of the country is forested, and the Czech Republic’s network of mountain ranges, national parks and protected areas are excellent resources for the adventure travel market (The World Bank, 2012). The relatively small size of the country combined with its excellent infrastructure make adventure-based trips easily accessible from the country’s main cities.

The Czech Republic ranked ninth among developing countries in four pillars of the ATDI: Sustainable Development, Health, Entrepreneurship, and Cultural Resources.

The Czech Republic ranked 31st on the WEF TTC Index, scoring highly in Cultural Resources, Health and Hygiene, and Tourism Infrastructure (WEF, 2012).

Slovak Republic

Tourism directly contributed 2.3% of the Slovak Republic’s total GDP in 2011 and is expected to increase 3.0% per annum from 2012-2022. Tourism supported 2.4% of total employment in the Slovak Republic and is projected to rise .6% per annum to 58,000 jobs in 2022 (WTTC, 2012).

The Slovak Republic has established itself as a year-round destination for adventure tourism with 40 ski resorts, nine national parks, and 12 underground caves open for public exploration (Slovak Tourist Board, 2011). The country is maximizing the prime tourism potential of the 6.5 million people living in the CENTROPE Central European region by participating in the new www.tourcentrope.eu website which maps cycling routes to natural and cultural attractions and events (Slovenský Dom CENTROPE, n.d.).

The Slovak Republic ranked 13th among developing nations in the Image pillar, reflecting its reputation as an emerging adventure tourism destination. It also ranked 14th among developing nations in the Cultural Resources pillar, 23.2% of its terrestrial area and territorial waters are protected (World Database On Protected Areas, 2010).

The Slovak Republic ranked 54th in the WEF TTC Index. The country ranked highly in Health and Hygiene and Environmental Sustainability, but scored poorly in Air Transport Infrastructure (WEF, 2012).
Israel

Tourism’s direct contribution to Israel’s GDP was 2.5% in 2011 and is forecasted to rise 4.2% per annum from 2012 to 2022. Tourism directly supported 2.8% of Israel’s workforce, and is expected to rise by 1.9% per annum to 103,000 jobs in 2022 (WTTC, 2012).

Known for its religious and historical tourism, Israel also has a surprising diversity of natural resources that make it ideal for adventure activities such as bird-watching and scuba diving. The country continues to build on its image as an adventure destination with advertising campaigns that feature mountain biking, horseback riding, and caving (Ministry of Tourism, Government of Israel, 2011).

The expert panel ranked Israel as seventh among developing nations in the Infrastructure Pillar. It also ranked 18th among developing nations in the Cultural Resources pillar and 19th among developing nations in the Health, Natural Resources, and Humanitarian pillars.

Israel ranked 46th in the WEF TTC Index. The country scored highly in Health and Hygiene and ICT Infrastructure, but ranked poorly in Travel and Tourism Price Competitiveness (WEF, 2012).
Estonia

Tourism directly contributed 3.3% of Estonia’s GDP and 3.4% of its total employment in 2011. Tourism’s contribution to GDP is projected to rise by 2.9% per annum from 2012 to 2022 and employment is projected to fall by .7% per annum to 18,000 jobs in 2022 (WTTC, 2012).

Ripe with natural resources, Estonia is nearly 50% forest and boasts over 1,500 islands. The capital, Tallinn, was designated the 2011 European Capital of Culture, spotlighting the country’s cultural heritage and spawning a host of high-profile events (Estonian Tourist Board, n.d.). Estonia continues to position itself at the forefront of adventure trends, recently opening the first parkour grounds in Eastern Europe (Tallinn City Tourist Office & Convention Bureau, 2012). Overnight foreign visitors to Estonia increased by 15.6% in 2011, setting a record for the second year in a row (Estonian Tourist Board, 2012).

Estonia ranked fifth among developing countries in the Entrepreneurship pillar, scoring a 75.2 on the Index of Economic Freedom (The Heritage Foundation, 2012). It also ranked highly in the Safety pillar due to high expert panel ratings and an absence of FCO travel alerts.

Estonia ranked 25th in the WEF TTC Index. The country ranked 11th in tourism infrastructure and 13th in ICT infrastructure (WEF, 2012).
Conclusion

Adventure tourism is one of the fastest growing segments in the travel industry with recent estimates based on consumer surveys indicating 17% growth from 2009 – 2010. Additionally, in 2007, a survey among one hundred tourist boards showed that less than half recognized adventure tourism as a stand-alone sector within tourism at their destination. Today, however, nearly 90 percent qualify adventure tourism as a stand-alone sub-sector (ATTA, 2011). Tourists are increasingly seeking travel experiences involving physical activity, culture interactions and engagement with nature during their vacations, and destinations are responding by updating their brands, building networks of public-private partnerships to increase capacity building, and revising policies to help promote and develop locales as adventure tourism destinations.

Since adventure tourism is strongly linked to the natural and cultural resources that support it, this sector has the unique potential to promote long-term environmental and socio-cultural conservation while preventing excessive leakages and helping to keep tourist dollars in the destination economy. The sustainability and profitability of new initiatives will depend on a coordinated effort between industry, government, local communities, and project supporters. These actors will need to take a development approach uniquely tailored to the local political, economic, social, and environmental landscape.

This can be challenging, especially in emerging markets where adventure tourism development efforts often occur at a grass-roots level, with a small pool of skilled labor, lack of technology, and limited institutional support. Improvements in education and training, the promotion of collaborative efforts, and the sharing of adventure tourism best practices can all help support the sustainable growth of the adventure travel sector in these markets.

Tourist demand for adventure travel experiences continues to increase at a rapid rate, and the ten ATDI pillars presented in this report can be used by countries to guide policy-making decisions and development plans. Pillar scores offer a straightforward way to examine competitive advantages as well as areas in need of improvement. We recommend that countries wishing to expand their adventure tourism initiatives take the pillars into consideration as part of a holistic development approach that strives to balance the economic, environmental and cultural aspects of tourism development.

* Based on 2009 survey research conducted by The George Washington University for the Adventure Travel Trade Association. Growth percentages obtained by taking the number of trips multiplied by spending over time. The data for this was gathered from consumer surveys, which asked people about the types of activities they participate in while traveling (from this respondents were segmented respondents into adventure/non-adventure categories), and spending data gathered from tour operators and consumer-reported spending. Consumers polled came from six countries constituting 73% of global expenditures.
Bibliography


German National Tourist Board. (2012). Incoming-Tourism Germany. Frankfurt, Germany.


