

Insight Report

# The Peru Travel & Tourism Competitiveness Report 2013





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# Preface

**BØRGE BRENDE**

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The travel and tourism (T&T) sector has seen remarkable growth worldwide and is becoming an increasingly important driver of economic prosperity, including in developing countries, where it generates many benefits. The sector is an important source of foreign exchange earnings and also creates jobs and opportunities for entrepreneurship, thereby contributing to reducing poverty. In addition to these direct effects, the development of T&T can also generate positive spillover effects for the economy, as it creates strong incentives for preserving countries' natural and cultural heritage and for upgrading infrastructure, thereby enhancing sustainability and improving competitiveness.

The World Economic Forum releases biennially the Travel and Tourism Competitiveness Index (TTCI), aiming to provide a benchmarking tool to assess the drivers of, and obstacles to, T&T development in various countries. The fifth edition of the *Travel and Tourism Competitiveness Report*, published in 2013, covers 140 economies worldwide and enables comparison across countries on the dimensions that affect T&T competitiveness. Based on the most recent TTCI assessment, the present *Report* analyzes the performance of Peru in greater detail.

Peru has embarked on the positive development path that Latin American economies have followed over recent decades, registering an average GDP increase close to 6.5 percent in the last ten years. The country's tourism industry is also growing at a fast pace and reached 2.6 million international visitors in 2011. Leveraging the country's many assets, the T&T sector has helped to create thousands of jobs, especially at the local level, and to expand the country's exports. Going forward, the sector's potential is likely to grow even further, notably in the context of the Pacific Alliance, a regional grouping co-founded by Peru with Chile, Colombia, and Mexico that aims at facilitating the flow of goods, services, and capital over borders. The country's membership in this grouping could contribute to fostering its competitiveness in the near future, especially for the T&T sector.

The country's leaders have recognized the strategic role T&T can play in the country's development by leveraging the outstanding natural wealth and cultural heritage spread across the country's 24 departments.

The already well-established T&T industry can thrive with the engagement of all the stakeholders in the country towards removal of the hindrances that still thwart full achievement of its potential.

This *Report* assesses the strengths that can be leveraged and the obstacles that must be addressed for Peru fully to reap the benefits of T&T. The release of this *Report* coincides with the Summit on Travel, Trade & Tourism, organized in the lead-up to the World Economic Forum on Latin America 2013, whose overarching theme, "Delivering Growth, Strengthening Societies," closely relates to T&T's power to generate jobs and prosperity. We hope that this *Report* and the subsequent discussions will inform the decisions of Peru's policymakers and provide a valuable tool in achieving their vision.

I would like to thank the authors of this *Report*, Thea Chiesa, Roberto Crotti (World Economic Forum), and Klaus Leingfeld (GIZ), and to express my gratitude to Jennifer Blanke and Margareta Drzeniek Hanouz for their guidance, as well as to the other members of the Competitiveness and Benchmarking Network Team and the Aviation, Travel, and Tourism Team.

I would also like to thank the German Federal Ministry for Economic Cooperation and Development (BMZ) and GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) for their special contribution and commitment in this project. Finally, I would like to extend my sincere gratitude to the partner companies of the Aviation, Travel, and Tourism Industry Partnership Programme, as well as to our network of 150 Partner Institutes, whose support and commitment made this work possible.



# Executive Summary

The travel and tourism (T&T) industry has been one of fastest-growing sectors globally over the past ten years, and this upward trend is expected to continue in the future. The number of international travelers reached 1 billion in 2012 and has almost doubled over the past 20 years. It is estimated that the T&T sector directly contributes about 9.3 percent of GDP and 3.4 percent of employment worldwide.<sup>1</sup> In addition to its direct economic impact, a strong T&T industry helps to boost productivity and to connect countries by prompting hard and soft infrastructure upgrades, which are key elements for development.

In Latin America, the T&T sector has grown at a fast pace, in accordance with global trends, and in Peru it has played an increasingly strategic role in the economy. The number of tourists has increased significantly since the late 1990s, and in 2011 the country received almost 2.6 million international visitors. It is estimated that the direct contribution of the T&T sector to Peru's GDP amounts to about 3.4 percent, which increases to 9 percent once all indirect contributions are taken into account. The sector also plays an important role in generating employment. T&T directly provides jobs for over 300,000 people, or 2.3 percent of total employment. Taking indirect impact into account, T&T supports some 900,000 jobs altogether (7.4 percent of total employment).<sup>2</sup> Future projections for the industry are positive; the sector is expected to continue its expansion, further increasing its contribution to GDP and employment. In addition, the recent creation of the Pacific Alliance could boost Peru's T&T industry, increasing investment opportunities and facilitating the movement of people.

The potential for developing the T&T sector is considerable: Peru has many resources to attract tourists, such as a great variety of landscapes, spectacular views, and rich fauna, culture, and history. Peru's authorities have recognized the strategic importance of T&T and have made significant efforts to promote and support the sector. The current approach, as highlighted in the national strategic plan (*El Plan Estratégico Nacional de Turismo— PENTUR 2008–2018*), is based on removing the many obstacles that still hinder development.

A particular challenge in developing the sector sustainably is the need to balance and prioritize the sometimes conflicting needs of different industries (especially agriculture, mining, and tourism) regarding usage of natural resources and allocation of financial means. This *Travel & Tourism Competitiveness Report on Peru* aims to provide inputs into this particular challenge.

The *Report* addresses the issue of making Peru's T&T sector more competitive in two distinct sections. In Chapter 1, entitled "Achieving Peru's Potential in the Travel & Tourism Industry," the World Economic Forum assesses the performance of the industry through its T&T Competitiveness Index. In Chapter 2, "Tourism, Competitiveness, and an Inclusive Green Economy in Peru" the German International Cooperation Agency (GIZ) provides a quantitative analysis of key indicators for sustainable performance of the tourism industry in two of Peru's main tourism hot spots: Cusco and Madre de Dios.<sup>3</sup>

## CHAPTER 1: PERU'S PERFORMANCE IN THE TRAVEL & TOURISM COMPETITIVENESS INDEX

The World Economic Forum's Travel & Tourism Competitiveness Index (TTCI) aims to measure the *factors and policies that make it attractive to develop the T&T sector in different countries*. The TTCI was developed in close collaboration with tourism experts and is based on three broad categories of variables that facilitate or drive T&T competitiveness. These categories are summarized in the three subindexes of the TTCI: (1) the T&T regulatory framework subindex; (2) the T&T business environment and infrastructure subindex; and (3) the T&T human, cultural, and natural resources subindex. The first subindex captures those elements that are policy related and generally under the purview of the government; the second subindex captures elements of the business environment and the "hard" infrastructure of each economy; and the third subindex captures the "softer" human, cultural, and natural elements of each country's resource endowments.

Each of these three subindexes is composed of a number of pillars of T&T competitiveness, which are: (1) Policy rules and regulations; (2) Environmental sustainability; (3) Safety and security; (4) Health and hygiene; (5) Prioritization of Travel & Tourism;

(6) Air transport infrastructure; (7) Ground transport infrastructure; (8) Tourism infrastructure; (9) ICT infrastructure; (10) Price competitiveness in the T&T industry; (11) Human resources; (12) Affinity for Travel & Tourism; (13) Natural resources; and (14) Cultural resources. Each of the pillars is, in turn, made up of a number of individual variables. The dataset includes both survey data from the World Economic Forum's annual Executive Opinion Survey and quantitative data from publicly available sources, international organizations, and T&T institutions and experts.

Overall, Peru achieves a middle position in the TTCl, ranking 73rd out of the 140 economies assessed in the 2013 edition, four positions lower than in the previous edition. Peru's rank reflects a number of strengths and weaknesses. Among the strengths, the country is home to some of the world's most notable natural and cultural attractions; in addition to its beautiful and diverse landscape and world-famous archaeological sites, Peru can count on emerging tourism segments such as those leveraging gastronomy, adventure, and ecotourism. Another strength for Peru's T&T industry is the government's prioritization of the sector for the country's economic and social development. The government's commitment to the sector is reflected in many efforts to develop tourism at the national and local level, such as monitoring of the industry's performance, investments in infrastructure, and relevant marketing campaigns.

Despite Peru's undeniable strengths, there are still many areas in the T&T competitiveness dimension that need to be reinforced so that Peru can unlock the sector's true potential for the country's development. The main areas that Peru should focus on have been clustered into six priority issues:

- **Safety and security and ground infrastructure:** Improving the condition of these pillars can be considered Peru's two main priorities for the government. The alarming and growing level of crime could be an important factor discouraging tourists from visiting the country and burdens existing businesses with additional costs. Inadequate infrastructure (especially ground transport) is a significant obstacle not only to the development of the T&T sector but also to the country's competitiveness in general.
- Linked to the issue of underdeveloped infrastructure, the TTCl shows that higher **penetration of internet access**, especially at broadband speed, is necessary and would enable businesses to develop faster also in the rural areas. At the same time, tourists would enjoy better and simpler access to T&T, since the Internet is one of the primary tools for making travel choices and booking trips. An enhanced communications infrastructure will allow Peru to capture increased business opportunities in the international market, as well as with the

millennial community—the young travelers of the future.

- Likewise, poor **sanitation facilities** deter tourists from traveling to the country, as they generally prefer destinations where they are free of worries about health. Poor sanitation also represents a general health concern for the entire Peruvian population and a hindrance to the country's development.
- **Price competitiveness** is another area where a concerted effort between public and private actors is needed to ensure more rapid development of the tourism industry. Specifically, air ticket taxes, airport charges, and hotel prices should be reduced. High airport charges and ticket taxes act as a barrier to entering the country, as they significantly increase airfare. With regards to hotel pricing, it is important that Peru develop a joint public-private strategy that would attract specific market segments through a more targeted offering of services (transport and lodging). Presently, there seems to be a discrepancy between the market segment attracted (mainly backpackers and alternative travelers) and the prices of hotels, which are higher than in other countries.<sup>4</sup> In this context, Peru needs to review and streamline its value proposition in order to remain competitive with other destinations in the region.
- Finally, Peru needs to intensify efforts to ensure **environmental sustainability**. Despite the presence of several national parks and protected areas, effective and efficient protection of the environment represents an area of relative weakness for the country. Safeguarding natural resources is of paramount importance for a country of such extraordinary natural wealth as Peru. Its unique and diverse flora and fauna are among the main tourist attractions, representing a significant source of income. It is, therefore, crucial to protect this unique natural environment while the country develops its industrial base, in order to ensure that economic development is sustainable. Although the population is aware of the importance of protecting its natural endowment, and the central government and local authorities have set up a related legislative framework, the natural environment continues to be degraded because of environmentally damaging agricultural practices, mining operations, and logging, resulting in habitat destruction and a significant loss of biodiversity in some areas.

To sum up, the Travel & Tourism sector in Peru faces numerous and significant challenges. However, if the government prioritizes and addresses the main issues identified, the country could not only fulfil the potential of the T&T sector, but also boost national competitiveness, enjoying substantial socioeconomic benefits.

## CHAPTER 2: TOURISM, COMPETITIVENESS, AND AN INCLUSIVE GREEN ECONOMY IN PERU

While agriculture and extractive industries have been the main drivers of growth in Peru recently, the T&T industry remains less developed, indicating untapped potential. Investment in terms of public spending on T&T is increasing, but remains arguably sub-optimal at 2.7 percent of the total budget.<sup>5</sup>

In addition, the T&T sector in some cases competes with other industries for important resources such as land, water, and energy. The national government and local authorities often need to make difficult choices in allocating such limited resources across a portfolio of activities (including the tourism sector) based on the benefits they would bring to the local economy, while simultaneously considering the impact they would have on biodiversity and culture. Balancing the eco-footprint of economic activities with their positive economic impact is the core concept of **Inclusive Green Economy**, which is, following the resolution of the Rio+20 Conference, becoming the global orientation for sustainable development.

This leads to the key question underlying this chapter: If a country wishes to create 10,000 new jobs or contribute US\$1 million to the economy through tourism development, how much land, water, and energy will this effort consume, and what other positive and negative social, environmental, and cultural impacts will it generate?

One of the main obstacles to understanding how to allocate scarce resources is a lack of information arising from the gap between existing data on tourism performance, and more detailed figures relating to tourism's impact at the local level, which are needed to undertake a thorough assessment.

The pilot research conducted by the German International Cooperation Agency (GIZ) in Cusco, Peru's top cultural destination, and Madre de Dios, an ecotourism hot spot, aims to provide more detailed information to assess tourism impact at the local level and to compare it with other industries operating in the same environment. Baseline information and data were collected through structured interviews with a representative sample of hotels, other tourism service providers, and visitors about their eco-footprints, economic performance, and other contributions to the local economy, nature, and cultural conservation. Data on different aspects of the eco-footprint, such as use of land, water, and energy, were then analyzed in relation to figures quantifying each service provider's economic contribution through revenue, salaries, and other local income generated by the hospitality sector. Based on these individual figures, average relationships were quantified for different types of tourism service providers, such as hotels of a certain category, and the range was measured between the lowest and the highest performer.

Despite the fact that not all the relevant information was available (for example, most hotels do not count their solid waste volumes), the data collected provide enough information to draw some significant preliminary conclusions about the economic performance and eco-footprint of tourism in Cusco and Madre de Dios. These findings will provide authorities with additional information that will allow them to make better decisions regarding the allocation of scarce financial and natural resources in order to maximize return on investment and ensure long-term national and socio-economic development. Since the results show that T&T plays a positive role, especially as compared with other sectors, they should help to increase investment in, and to foster the competitiveness of, Peru's T&T sector.

Overall, the results of this analysis indicate that Peru's tourism industry is very efficient in creating positive economic impact with a relatively low eco-footprint: To create 10,000 jobs in Peru, the hospitality industry uses fewer than 100 hectares of land, or 1 square kilometer, and it uses less than one hectare to produce US\$1 million of contribution to the economy. Although comparable data from other sectors are not available, it is evident that this is a high benchmark in job creation and economic contribution per hectare.

Some of the findings need to be further qualified. For example, in terms of location, hotels in urban areas usually do not require additional investment in transport, energy, and other infrastructure and therefore achieve a better overall eco-footprint assessment. Conversely, decentralized accommodations, including eco-lodges built in rural or natural areas, require building additional infrastructure, which is reflected in more investment and a larger eco-footprint for these endeavors. Yet, on the positive side, such facilities bring tourism benefits to more remote areas and create business incentives for conservation of natural assets, biodiversity, and culture, compensating for their larger eco-footprint. Another qualification to the preliminary conclusions presented here is that a comprehensive water footprint assessment would require a more sophisticated analysis, encompassing not only the amount of water used by an industry but also how this water is treated and returned to the community.

Some of the most relevant results of this research can be summarized according to the following relationships between economic impact and resource or land use:

- **Employment:** For every 1,000 square meters of land used by hotels, five to seven jobs are created in the case of backpacker hostels and up to 30 jobs are created in mid-level city hotels and luxury eco-lodges, with an industry average of 12.5 jobs per 1000 square meters, or 125 jobs per hectare.
- **Revenue:** Luxury hotels and eco-lodges, on average, generate an annual revenue of

US\$800,000–\$900,000 at 60 percent occupancy, using 1000 square meters of built area. Mid-level hotels generate annual revenue of US\$400,000–\$500,000, and low-budget accommodations generate US\$90,000–\$100,000 per year on 1,000 square meters of built area. Combining the data on employment with those on revenue, it is found that the ratio of jobs to revenue in the lower-end segment is 80 jobs per US\$1 million of revenue, while in the high-end segment the ratio is 16–18 jobs per US\$1 million of revenue.

- **Salaries:** Total salaries paid per 1,000 square meters of hotel area amount to US\$60,000–\$300,000. Interestingly, there is no major difference between mid-level and luxury hotels, because the higher number of jobs per room in luxury hotels and the higher salaries paid are counterbalanced by the fact that luxury hotels have only about 10 rooms per 1000 square meters, whereas low- and mid-level hotels have 20–30 rooms.
- **Supply chains:** Expenses of the researched hotels for goods and services range from US\$6,500 per year in a backpacker lodge to more than US\$800,000 in luxury accommodations, or US\$10,000–\$150,000 per 1,000 square meters. This wide range reflects the number and quality of services offered by different types of accommodation, ranging from bed & breakfast to a more sophisticated offering of food, beverages, and services, including spa and wellness. It is important to highlight that almost 97 percent of the supply chain is based in Peru (either in the immediate local network or in the broader national network), while only 3 percent comes directly from imports.
- **Water use:** Total water consumption of the researched hotels in Cusco ranges between 140 liters/guest-night in a budget hotel without a swimming pool or laundry<sup>6</sup> and 300 liters/guest-night in a luxury hotel offering these facilities, generating revenue that ranges between US\$11 in the budget and US\$296 in the luxury hotels. Both water consumption ratios are low when compared with international standards for these types of hotels. They also appear efficient when compared with the water footprint of agriculture. The data for average water footprints in agriculture indicate that producing 1 kg of sugar with the lowest water consumption requires 200 liters of water.<sup>7</sup> It is clear that agriculture requires intense use of water for production, while the economic impact of hotels on the local community is higher. This is all the more true given that farmers have not yet started using water-efficient technologies, except in some areas where water is extremely scarce or expensive.

This analysis indicates that, in order to allow both industries to prosper in the same area, and in order to allow the community to benefit from both activities, the government should incentivize the integration of the agriculture sector into the hotel industry's supply chain while promoting resource-efficient technologies in both industries.

The remarkable differences found between providers of similar tourism services in terms of use of water, energy, and land usage shows that better management of these resources can further increase the resource efficiency of tourism.

Although the present analysis is just an initial, and still incomplete, evaluation of the relationship between resource use and economic benefits, it is a first step towards a more comprehensive assessment of the role that T&T and other sectors can play in creating an Inclusive Green Economy in Peru in the future. If Peru complements its decision-making framework with an assessment based on factual cost-benefit analysis, it will be better able to integrate the development of the T&T industry with other economic activities, leveraging the country's tourism potential in a more sustainable way.

## NOTES

- 1 WTTC (World Travel & Tourism Council), *Economic Impact Report 2013: World*, [http://www.wttc.org/site\\_media/uploads/downloads/world2013\\_1.pdf](http://www.wttc.org/site_media/uploads/downloads/world2013_1.pdf). The employment number becomes 8.7 percent if the total contribution is taken into consideration.
- 2 WTTC, *Economic Impact Report 2013: Peru*, <http://www.wttc.org/research/economic-impact-research/country-reports/p/peru/>.
- 3 Based on a study supported by the German International Cooperation Agency (GIZ) on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ).
- 4 The hotel price index is calculated based on first-class branded hotels. The inference is founded on the assumption that a similar comparison applies in the case of lower-class hotels.
- 5 WTTC, *Tourism Satellite Accounting Research 2012*.
- 6 Water used in the supply chain is not included in this estimate.
- 7 Data of the average worldwide water footprints of different crops are available at [www.waterfootprint.org](http://www.waterfootprint.org). However, there are no country-specific water footprint data available; we therefore use the worldwide average.

# Achieving Peru's Potential in the Travel & Tourism Industry: Findings from the Travel & Tourism Competitiveness Report 2013

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The travel & tourism (T&T) sector has been growing significantly over the past few decades, emerging as a critical contributor to the development and economic growth of both advanced and developing countries. According to estimates from the World Travel & Tourism Council (WTTC)<sup>1</sup> and the International Trade Centre,<sup>2</sup> tourism is one of the world's fastest-growing export sectors. Its contribution to global GDP in 2012 was 2.9 percent directly and 9.3 percent if indirect contribution is taken into account. Tourism's contribution to exports grew by 5–6 percent per year over the past few years, and it is expected that this positive trend will continue in the future. With the exception of a slowdown during the 2008–2009 global economic crisis, the number of international tourist arrivals has grown considerably and almost continuously over the past 20 years. From approximately 530 million in 1995, it grew to 952 million by 2010 and passed the one billion mark (1,035 million) in 2012 for the first time in history.<sup>4</sup>

Despite the slowdown in 2008–2009, and the fact that a few regions or countries were negatively affected by external developments over the past years, there is wide-ranging agreement that the T&T industry has proven resilient in the face of a variety of external shocks. The sector has recovered rather swiftly from events such as natural disasters, pandemic diseases, terrorist attacks, and financial crisis.

As the global T&T sector continues to grow, a notable shift has become apparent in the origin of travelers and in their choice of destination, from developed to developing and emerging economies. In 2012, tourists traveling to developing countries represented 47 percent of global arrivals, an increase of more than 10 percentage points since the beginning of the century. At the same time, tourism originating from developing countries is also on the rise. Households from Latin America, China, Malaysia, and the Middle East, in particular Saudi Arabia and the United Arab Emirates, have increased their T&T spending by approximately 10 percent in the last decade. The number of travelers departing from Latin America and the Caribbean increased by 5 percent, from Indonesia by 8 percent, from India by 11 percent, and from China by 15 percent.<sup>5</sup>

A strong T&T sector raises national income and contributes to create much-needed employment, both directly and indirectly.<sup>6</sup> The WTTC estimates that the T&T sector directly employed over 100 million workers worldwide in 2012, a growth of 2 percent since 2007, and further estimates a growth of another 2 percent per year for the next ten years.<sup>7</sup> In addition to direct economic and social benefits, a growing tourism sector can generate important spillover effects in the economy, for example, by enhancing connectivity or contributing to development or upgrading of soft and hard infrastructure.

The Latin America and Caribbean region has witnessed significant economic growth over the past ten years, averaging approximately 5 percent per year,<sup>8</sup> with all countries registering positive economic growth. Countries from the region have increasingly recognized the benefits of developing the T&T sector: in 2010 alone, the region attracted almost 18 million more tourists than ten years before, a difference of 32 percent.<sup>9</sup>

This result was driven by the solid performance of many countries that have started to prioritize the development of their T&T sectors. While Mexico, which is regarded as the most mature tourism destination, represented over 37 percent of the region's international tourist arrivals at the beginning of the century, today its weight in the region is reduced to approximately 30 percent, because other countries, such as Colombia, Argentina, Costa Rica, and Chile, have more than doubled their international arrivals. As a result, in 2012 the contribution of T&T to aggregate Latin America GDP is estimated between 3.2 percent and 8.8 percent.<sup>10</sup>

Going forward, the regional dimension of tourism is likely to become more important for Latin American economies. As average income in the region rises,<sup>11</sup> more disposable income will become available for T&T-related activities, providing an incentive to governments to focus more on the sector in order to capture a share of this increased spending.

As in other countries in the region, Peru's tourism industry experienced significant growth in recent years. International tourist arrivals more than doubled in ten years (2002–2011), an average increase of about 9 percent per year. This represents the second-highest growth of this sector in Latin America, next to

Table 1: Selected tourism and economic indicators (2011 or most recent)

	TTCI	International tourist arrivals			International tourism receipts		Receipts per arrival	GDP		Population
		Rank/140 2013	Thousands 2011*	Per 100 population 2011*	CAGR (%) 1997–2011	US\$ millions 2011*	GDP (%) 2011*	US\$ 2011*	Current US\$ billions 2011	Current PPP\$ 2011
Barbados	27	568	205.0	1.2	974	22.6	1,715	4.3	24,989	0.3
Panama	37	1,473	41.0	8.7	1,926	6.3	1,308	30.6	14,096	3.6
Mexico	44	23,403	20.6	1.3	11,869	1.0	507	1,154.0	14,653	113.7
Costa Rica	47	2,192	47.5	6.9	2,152	5.3	982	40.9	11,923	4.6
Brazil	51	5,433	2.8	4.4	6,555	0.3	1,206	2,492.9	11,769	194.9
Chile	56	3,070	17.8	4.3	1,831	0.7	596	248.4	17,361	17.2
Uruguay	59	2,857	84.8	1.4	2,187	4.7	765	46.7	15,112	3.4
<b>Peru</b>	<b>73</b>	<b>2,598</b>	<b>8.7</b>	<b>9.7</b>	<b>2,360</b>	<b>1.3</b>	<b>908</b>	<b>177.2</b>	<b>10,062</b>	<b>30.0</b>
Ecuador	81	1,141	7.6	5.3	843	1.3	739	66.5	8,487	15.0
Colombia	84	2,385	5.2	9.9	2,201	0.7	923	327.6	10,247	45.5
<i>Outside the region</i>										
New Zealand	12	2,601	58.9	3.8	5,579	3.5	2,145	158.9	28,012	4.4
Jordan	60	3,960	63.3	8.7	3,000	10.4	758	28.9	5,907	6.3
Indonesia	70	7,650	3.2	2.6	7,997	0.9	1,045	846.5	4,666	241.0

Sources: World Economic Forum 2012a, UNWTO 2012b, IMF 2012b, author's calculation.

Note: CAGR is Compound Annual Growth Rate.

\* Figures for Colombia refer to 2010.

Colombia's. The T&T sector in Peru today represents an important source of employment (see Table 1), less than agriculture, less than other services, but more than mining.<sup>12</sup> Indeed, Peru's unique resources, including spectacular landscapes, exceptional wildlife, and natural and archaeological treasures, together with government efforts and external conditions, have led the national T&T industry to contribute 3.4 percent of total GDP in 2012.<sup>13</sup> It directly employs 305,000 people, while generating another 675,000 jobs indirectly.<sup>14</sup> The sector is also the third most important contributor to exports.<sup>15</sup>

However, although there is no doubt that the T&T sector in Peru has great potential, it has not yet been fully exploited. For example, in 2011, Peru received only 8.7 international tourist arrivals per capita, compared to 17.8 in Chile, a wealthier country but one with arguably fewer tourist attractions.

The government has made efforts to stimulate the sector in order to diversify the economy and thus to reduce exposure to commodity price shifts related to the export of minerals, which represent the largest share of Peru's total exports today. Thus, the tourism sector is a strategic priority for diversifying the structure of the country's balance of payments, as well as for T&T's contribution to national income, employment, and development of critical infrastructure.

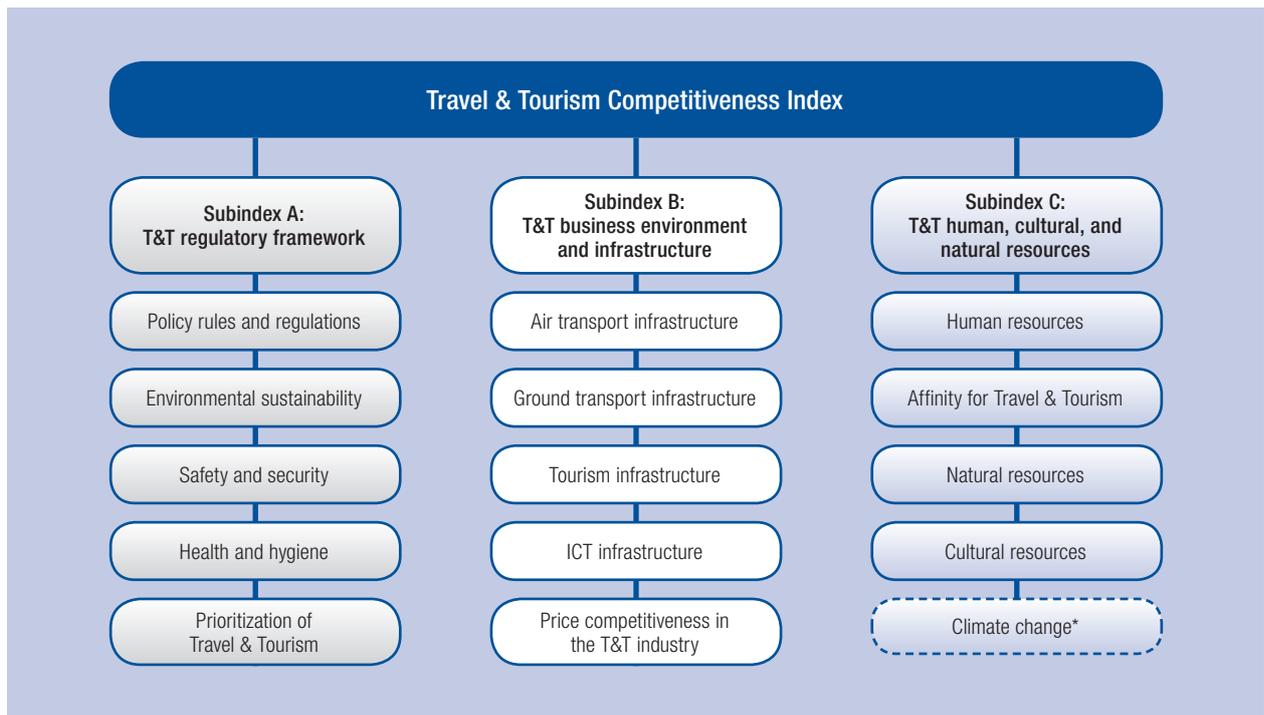
From a regional perspective, the United States and Latin America (especially Chile, Ecuador, Argentina, Colombia, and Brazil) represent Peru's main markets, followed at some distance by several European countries (see Figure 3, below).<sup>16</sup> Although intraregional Latin

American tourism is growing at a fast rate,<sup>17</sup> and Peru must continue to capture a portion of this regional market share, it is important that the government and private sector include in their policies and marketing focus potential new source markets, in order to drive additional growth of the T&T industry. To date, Peru has not fully succeeded in capturing a share of the growing outbound tourism market, in particular from Asia and, to a lesser extent, from the Russian Federation and the Middle East, where spending on international travel is on the rise.<sup>18</sup> In addition to tapping new markets, the country could also capture new market segments. Although Peru tends to attract mainly leisure, low profit-margin visitors, the average spending per arrival is approximately US\$900, which places Peru in a higher price segment than destinations such as Mexico and Ecuador. To attract other types of travelers, the country must differentiate and adjust its strategy and marketing mix.

Given the considerable unrealized potential of Peru's T&T industry, the Peruvian government has clearly defined the sector as a priority for the nation's development going forward. There is no doubt that, if the sector is properly managed and the main obstacles currently hindering its progress are removed, its potential to contribute to the country's human and economic development would be significant.

The Travel & Tourism Competitiveness Index (TTCI) aims to provide a tool for the Peruvian government to identify the main areas of strength and to address those areas that challenge Peru's T&T competitiveness. Furthermore, the Index aims to stimulate dialogue

Figure 1: The TTCI framework



\* This notional 15th pillar is not included in TTCI calculations. The World Economic Forum hopes to integrate this pillar into the TTCI in the future as reliable data become available.

among all the relevant stakeholders to constructively and simultaneously develop the country's T&T sector.

### MEASURING TRAVEL AND TOURISM COMPETITIVENESS

The TTCI has been developed within the context of the World Economic Forum's Industry Partnership Programme for the Aviation, Travel, & Tourism sector to measure *the factors and policies that make it attractive to develop the T&T sector in different countries*. The index was developed in close collaboration with our Strategic Design Partner, Booz & Company, and our Data Partners, Deloitte, the International Air Transport Association (IATA), the International Union for Conservation of Nature (IUCN), the United Nations World Tourism Organization (UNWTO), and the World Travel & Tourism Council (WTTTC). We also received important feedback from a number of key companies that are Industry Partners. By providing a cross-country analysis of the drivers of T&T competitiveness, this Index is meant to provide the industry with useful comparative information and an important benchmarking tool for making decisions related to business and industry development. Also, this analysis provides an opportunity for the T&T industry to highlight for national policymakers the obstacles to T&T competitiveness that require policy attention, and to enable dialogue between the private and public sectors about how to improve the environment for developing the T&T industry at the national level. The TTCI covers three broad categories

that drive T&T competitiveness. These categories are presented as three subindexes:

- **T&T regulatory framework.** This subindex captures those elements that are policy related and generally under the purview of governments.
- **T&T business environment and infrastructure.** This subindex captures elements of the business environment and the "hard" infrastructure of a country.
- **T&T human, cultural, and natural resources subindex.** This subindex captures the "softer" human, cultural, and natural elements of each country's resource endowments.

Each of these three subindexes is, in turn, composed of a number of "pillars," of which there are 14 in all. Figure 1 presents the structure of the TTCI and the allocation of the 14 pillars within the three subindexes. These are:

1. **Policy rules and regulations** (comprises 9 indicators). This pillar captures the extent to which the policy environment is conducive to developing the T&T sector in each country.
2. **Environmental sustainability** (7 indicators). This pillar measures the stringency of the government's environmental regulations in each country, as well as the extent to which they are actually enforced.

3. **Safety and security** (4 indicators). This pillar takes into account the costliness of common crime and violence, the prevalence of terrorism, and the incidence of road traffic accidents. It also considers the extent to which police services can be relied upon to provide protection from crime.
4. **Health and hygiene** (4 indicators). This pillar assesses the quality and availability of health and sanitation infrastructure.
5. **Prioritization of Travel & Tourism** (5 indicators). This pillar measures whether a country prioritizes the T&T sector and the extent to which the government has in place a vision for developing it.
6. **Air transport infrastructure** (7 indicators). This pillar measures both the quantity and the quality of air transport infrastructure.
7. **Ground transport infrastructure** (5 indicators). This pillar measures both the quantity and the quality of ground transport infrastructure.
8. **Tourism infrastructure** (3 indicators). This pillar measures the quality of infrastructure that is either tourism-specific or particularly relevant for tourism, namely, density of hotel rooms and ATMs and presence of car rental companies.
9. **ICT infrastructure** (7 indicators). This pillar assesses uptake of different information and communication technologies (ICT), an important enabler of T&T development.
10. **Price competitiveness** (5 indicators). This pillar measures the relative costliness of a destination.
11. **Human resources** (10 indicators). This pillar assesses the general health of the population and the quality and availability of education and training.
12. **Affinity for Travel & Tourism** (4 indicators). This pillar measures the extent to which a country and society are open to tourism and foreign visitors.
13. **Natural resources** (5 indicators). This pillar captures the quality of a country's natural heritage and richness, as well as its efforts to preserve it.
14. **Cultural resources** (4 indicators). This pillar assesses the quality of a country's cultural heritage and richness.

The computation of the TTCI is based on successive aggregations of the different levels of the framework, from the lowest level (i.e., aggregation of the various individual indicators) to the highest level (i.e., aggregation of the three subindexes that produce the overall TTCI score). The score in each category (i.e., overall index, subindex, pillar, indicator) is the average

of the normalized scores of all individual components in that category. The TTCI scorecard in Appendix A presents the detailed structure of the TTCI with a list of the 79 individual indicators. Individual indicators are sourced from various international organizations—e.g., International Air Transport Association (IATA), International Union for Conservation of Nature (IUCN), United Nations World Tourism Organisation (UNWTO), World Travel & Tourism Council (WTTC), United Nations Conference on Trade and Development (UNCTAD), World Bank, and United Nations Educational, Scientific and Cultural Organization (UNESCO)—as well as from the World Economic Forum's annual Executive Opinion Survey (see Appendix B for all the sources). This survey is carried out among business leaders—over 14,000 in 2012—in all economies covered by our research. The Survey provides unique data on many qualitative institutional and business environment issues, as well as on specific issues related to the T&T sector, reflecting the perspective of people making investment decisions in their respective economies.

#### PERFORMANCE OF PERU IN THE TTCI 2013

Overall, Peru attains a middling result in the TTCI 2013 (see Table 2), ranking 73rd out of 140 countries, and 11th out of 24 in the broad macro-region including South America, Central America, and the Caribbean.

However, as Figure 2 and Table 3 show, while overall performance is slightly above the regional average, it might appear slightly disappointing, considering the potential of a country endowed with remarkable cultural and natural resources.

To put this result in perspective, it is important to highlight that the TTCI does not measure only the attractiveness of a location to tourists, but also its ability to entice business travel, as well as the drivers of T&T business development in a country. Not surprisingly, then, the TTCI has historically been dominated by advanced economies. The top 30 economies in the 2013 rankings are all high-income.<sup>19</sup> This is driven by the fact that advanced economies tend to offer better business environments, including hard and soft infrastructures, regulatory framework, security, and public health. For these reasons, when interpreting the results, the individual country context should be taken into account and countries should be compared with peers in a similar stage of development and with similar characteristics in terms of natural and cultural resources and economic structure. From this perspective, the relatively low position of Peru in the ranking is clearly driven by sizable gaps in many areas linked to its level of development. Nonetheless, the more granular analysis at the pillar level will highlight strengths and weaknesses of the country and will show why Peru has significant potential to develop its T&T industry further.

Table 2: The Travel &amp; Tourism Competitiveness Index 2013 and 2011 comparison

Country/Economy	2013		2011	Country/Economy	2013		2011
	Rank/140	Score	Rank/139		Rank/140	Score	Rank/139
Switzerland	1	5.66	1	Morocco	71	4.03	78
Germany	2	5.39	2	Brunei Darussalam	72	4.01	67
Austria	3	5.39	4	Peru	73	4.00	69
Spain	4	5.38	8	Sri Lanka	74	3.99	81
United Kingdom	5	5.38	7	Macedonia, FYR	75	3.98	76
United States	6	5.32	6	Ukraine	76	3.98	85
France	7	5.31	3	Albania	77	3.97	71
Canada	8	5.28	9	Azerbaijan	78	3.97	83
Sweden	9	5.24	5	Armenia	79	3.96	90
Singapore	10	5.23	10	Vietnam	80	3.95	80
Australia	11	5.17	13	Ecuador	81	3.93	87
New Zealand	12	5.17	19	Philippines	82	3.93	94
Netherlands	13	5.14	14	Trinidad and Tobago	83	3.93	79
Japan	14	5.13	22	Colombia	84	3.90	77
Hong Kong SAR	15	5.11	12	Egypt	85	3.88	75
Iceland	16	5.10	11	Dominican Republic	86	3.88	72
Finland	17	5.10	17	Cape Verde	87	3.87	89
Belgium	18	5.04	23	Kazakhstan	88	3.82	93
Ireland	19	5.01	21	Serbia	89	3.78	82
Portugal	20	5.01	18	Bosnia and Herzegovina	90	3.78	97
Denmark	21	4.98	16	Namibia	91	3.77	84
Norway	22	4.95	20	Gambia, The	92	3.73	92
Luxembourg	23	4.93	15	Honduras	93	3.72	88
Malta	24	4.92	26	Botswana	94	3.71	91
Korea, Rep.	25	4.91	32	Nicaragua	95	3.67	100
Italy	26	4.90	27	Kenya	96	3.66	103
Barbados	27	4.88	28	Guatemala	97	3.65	86
United Arab Emirates	28	4.86	30	Iran, Islamic Rep.	98	3.64	114
Cyprus	29	4.84	24	Mongolia	99	3.63	101
Estonia	30	4.82	25	Suriname	100	3.63	n/a
Czech Republic	31	4.78	31	Kuwait	101	3.61	95
Greece	32	4.75	29	Moldova	102	3.60	99
Taiwan, China	33	4.71	37	Guyana	103	3.60	98
Malaysia	34	4.70	35	El Salvador	104	3.59	96
Croatia	35	4.59	34	Rwanda	105	3.56	102
Slovenia	36	4.58	33	Cambodia	106	3.56	109
Panama	37	4.54	56	Senegal	107	3.49	104
Seychelles	38	4.51	n/a	Zambia	108	3.46	111
Hungary	39	4.51	38	Tanzania	109	3.46	110
Montenegro	40	4.50	36	Bolivia	110	3.46	117
Qatar	41	4.49	42	Kyrgyz Republic	111	3.45	107
Poland	42	4.47	49	Nepal	112	3.42	112
Thailand	43	4.47	41	Venezuela	113	3.41	106
Mexico	44	4.46	43	Tajikistan	114	3.41	118
China	45	4.45	39	Paraguay	115	3.39	123
Turkey	46	4.44	50	Uganda	116	3.39	115
Costa Rica	47	4.44	44	Ghana	117	3.38	108
Latvia	48	4.43	51	Zimbabwe	118	3.33	119
Lithuania	49	4.39	55	Swaziland	119	3.31	116
Bulgaria	50	4.38	48	Ethiopia	120	3.29	122
Brazil	51	4.37	52	Cameroon	121	3.27	126
Puerto Rico	52	4.36	45	Pakistan	122	3.25	125
Israel	53	4.34	46	Bangladesh	123	3.24	129
Slovak Republic	54	4.32	54	Malawi	124	3.22	121
Bahrain	55	4.30	40	Mozambique	125	3.17	128
Chile	56	4.29	57	Côte d'Ivoire	126	3.15	131
Oman	57	4.29	61	Nigeria	127	3.14	130
Mauritius	58	4.28	53	Burkina Faso	128	3.12	132
Uruguay	59	4.23	58	Mali	129	3.11	133
Jordan	60	4.18	64	Benin	130	3.09	120
Argentina	61	4.17	60	Madagascar	131	3.09	127
Saudi Arabia	62	4.17	62	Algeria	132	3.07	113
Russian Federation	63	4.16	59	Yemen	133	2.96	n/a
South Africa	64	4.13	66	Mauritania	134	2.91	136
India	65	4.11	68	Lesotho	135	2.89	135
Georgia	66	4.10	73	Guinea	136	2.88	n/a
Jamaica	67	4.08	65	Sierra Leone	137	2.87	n/a
Romania	68	4.04	63	Burundi	138	2.82	137
Lebanon	69	4.04	70	Chad	139	2.61	139
Indonesia	70	4.03	74	Haiti	140	2.59	n/a

Table 3: Peru and selected comparators heat map

Rank (out of 140)	Travel & Tourism Competitiveness Index	T&T regulatory framework					T&T business environment and infrastructure					T&T human, cultural and natural resources			
		1st pillar: Policy rules and regulations	2nd pillar: Environmental sustainability	3rd pillar: Safety and security	4th pillar: Health and hygiene	5th pillar: Prioritization of Travel & Tourism	6th pillar: Air transport infrastructure	7th pillar: Ground transport infrastructure	8th pillar: Tourism infrastructure	9th pillar: ICT infrastructure	10th pillar: Price competitiveness in T&T ind.	11th pillar: Human resources	12th pillar: Affinity for Travel & Tourism	13th pillar: Natural resources	14th pillar: Cultural resources
Barbados	27	41	27	32	28	8	32	9	26	19	113	23	2	133	50
Panama	37	18	40	70	86	32	16	47	42	50	26	79	41	11	77
Mexico	44	54	105	121	72	34	49	69	61	78	33	53	65	8	21
Costa Rica	47	68	26	68	78	20	44	100	33	67	56	27	28	7	93
Brazil	51	119	30	73	70	102	48	129	60	55	126	62	83	1	23
Chile	56	12	88	31	75	56	55	56	49	52	60	39	89	93	53
<b>Peru</b>	<b>73</b>	<b>70</b>	<b>85</b>	<b>118</b>	<b>98</b>	<b>58</b>	<b>75</b>	<b>121</b>	<b>67</b>	<b>83</b>	<b>103</b>	<b>80</b>	<b>82</b>	<b>12</b>	<b>43</b>
Colombia	84	56	97	115	100	88	73	131	93	77	105	72	86	16	37
<i>Outside the region</i>															
New Zealand	12	2	22	9	17	21	12	46	11	22	74	13	17	26	52
Jordan	60	35	46	72	60	14	62	75	69	82	67	67	13	94	94
Indonesia	70	93	125	85	112	19	54	87	113	87	9	61	114	6	38

## Score (1–7)

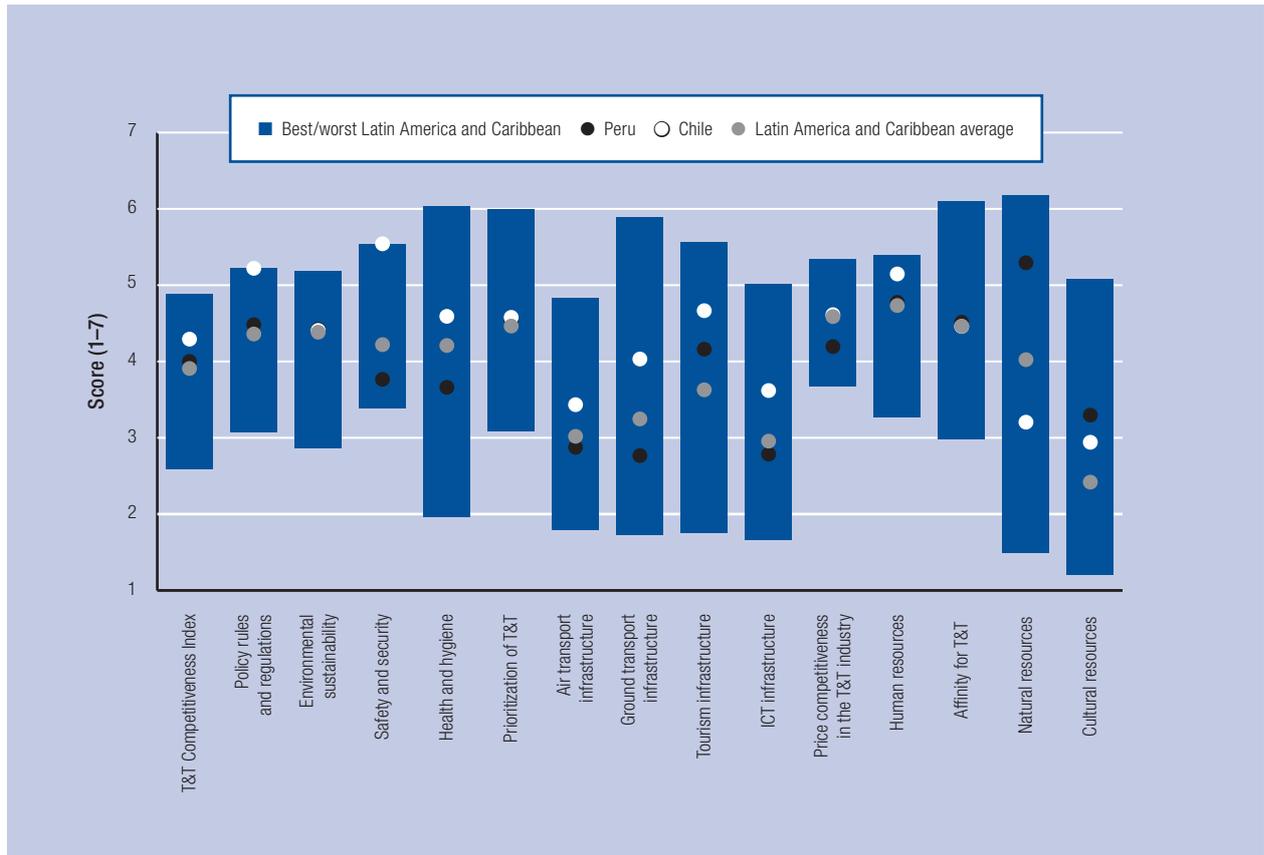
Best Performer	5.7	6.0	6.1	6.5	7.0	6.1	6.7	6.6	7.0	6.0	6.0	6.1	6.1	6.2	6.6
Barbados	4.9	4.8	5.1	5.5	6.0	6.0	4.4	5.9	5.6	5.0	4.0	5.4	6.1	2.3	3.0
Panama	4.5	5.1	5.0	4.7	4.2	5.1	4.8	4.3	4.8	3.6	5.0	4.8	4.9	5.3	2.2
Mexico	4.5	4.7	4.2	3.7	4.7	5.0	3.8	3.6	4.4	2.9	4.9	5.0	4.6	5.4	5.1
Costa Rica	4.4	4.5	5.2	4.8	4.5	5.4	3.9	3.0	5.1	3.2	4.7	5.4	5.1	5.4	1.9
Brazil	4.4	3.8	5.1	4.7	4.7	3.9	3.8	2.6	4.4	3.5	3.7	4.9	4.5	6.2	4.8
Chile	4.3	5.2	4.4	5.5	4.6	4.6	3.4	4.0	4.7	3.6	4.6	5.1	4.5	3.2	2.9
<b>Peru</b>	<b>4.0</b>	<b>4.5</b>	<b>4.4</b>	<b>3.8</b>	<b>3.7</b>	<b>4.5</b>	<b>2.9</b>	<b>2.8</b>	<b>4.2</b>	<b>2.8</b>	<b>4.2</b>	<b>4.8</b>	<b>4.5</b>	<b>5.3</b>	<b>3.3</b>
Colombia	3.9	4.6	4.3	3.8	3.6	4.2	2.9	2.6	2.8	2.9	4.2	4.9	4.5	5.1	3.5
<i>Outside the region</i>															
Pacific Alliance	4.2	4.8	4.3	4.2	4.1	4.6	3.2	3.2	4.0	3.1	4.5	5.0	4.5	4.8	3.7
Latin & Central America	3.9	4.3	4.4	4.3	4.3	4.3	3.0	3.1	3.5	3.0	4.7	4.8	4.4	4.4	2.5
Lower middle income	3.6	4.2	4.3	4.2	3.7	4.1	2.6	3.2	2.7	2.4	4.8	4.4	4.5	3.5	2.1
New Zealand	5.2	5.8	5.2	6.1	6.3	5.4	5.2	4.3	6.3	5.0	4.5	5.6	5.4	4.8	3.0
Jordan	4.2	4.9	4.8	4.7	5.1	5.6	3.2	3.5	4.1	2.8	4.6	4.9	5.5	3.2	1.9
Indonesia	4.0	4.3	3.9	4.4	2.9	5.4	3.5	3.2	2.1	2.7	5.3	4.9	4.2	5.6	3.5

Worst

Median/Average

Best

Figure 2: Peru performance in the TCI in the regional context



Source: World Economic Forum, The Travel & Tourism Competitiveness Report 2013.

### PILLAR 1: POLICY RULES AND REGULATIONS

A country's institutional and regulatory framework plays a relevant role in developing the T&T sector by setting the conditions that enable business growth. This pillar measures to what extent rules and regulations impose costs on entrepreneurs who want to start a business, restrict foreign ownership and foreign direct investment (FDI), or make it difficult or costly for travelers to come to the country because of obstructive visa policies and protectionist air services regulations.

Peru's 70th rank on this pillar places the country in the middle of the sample. A comparison with the best performer in the region, Chile (12th), points to significant potential for improvement of policies and regulations in Peru (the best performer on this pillar is Singapore).

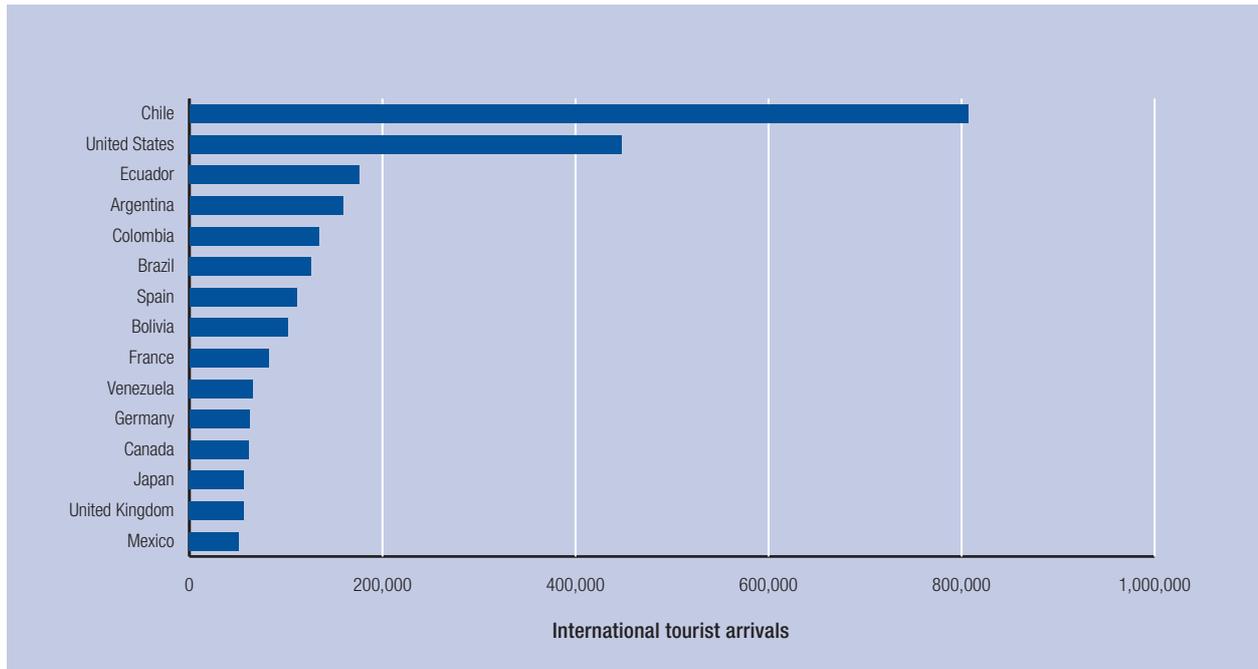
Starting in the early 1990s, Peru has adopted an increasingly open policy, especially in terms of trade and investments, signing free trade agreements with the United States and Asian partners. It has also put in place a number of regional trade agreements, such as those involving the Andean Community, the European Free Trade Association (EFTA), the European Union, the Global System of Trade Preferences among Developing Countries (GSTP), the Latin American Integration Association (LAIA), the Protocol on Trade Negotiations (PTN), Canada, Colombia, Japan, Panama, Chile, China, Korea, Mexico, Singapore, and the United States.<sup>20</sup>

The effects of this policy are reflected in several elements of this pillar. For example, foreign ownership is perceived as being prevalent in the country. The government generally encourages FDIs (see Box 1) and allows visitors from 92 nationalities to enter the country without a visa, making Peru one of the top 40 economies worldwide in terms of visa requirements, ahead of Chile and Colombia. Additionally, the government has established bilateral air service agreements with several countries, ranking 21st on the related indicator.

However, looking more closely at the details, the visa policy can be further improved, as there are still 102 nationalities that need a visa to enter Peru, and there are no visa-on-arrival or e-visa policies in place. Also, most of the bilateral air service agreements are with countries in the region and with North America, while agreements with Europe are scarce and those with the Middle East and Asia (except China) simply lacking.<sup>21</sup> This may play a role in limiting the availability of flight connections for tourists from these regions to Peru, as reflected in the lower number of tourist arrivals from these regions (see Figure 3).

Furthermore, despite a gradual improvement over the past years, starting a business in Peru still takes 26 days, and requires paying fees for official duties and legal services corresponding to 10.6 percent of the national income per capita. These results make Peru less bureaucratic and less expensive than several other

Figure 3: Top 15 nationalities visiting Peru (2012)



Source: Observatorio Turístico del Perú, "BADATUR Perú," <http://www.observatorioturisticodelperu.com/>; DIGEMIN (Dirección General de Migraciones y Naturalización), [www.digemin.gob.pe/](http://www.digemin.gob.pe/).

Latin American countries, but also indicate that red tape (98th) and costs (75th) still negatively affect the private sector's ability to create new companies—thus limiting the development of small and medium-sized enterprises (SMEs) in the country. SMEs are generally the very backbone of a country's T&T sector, and also play a relevant role in job creation. However, by their nature, they cannot afford high costs and are not structured to bear cumbersome administrative and legal obligations.

Property rights are not well protected in Peru, even when compared to other countries in the region, such as Brazil, Mexico, and Colombia. The country ranks 96th and has not progressed much over the past few years. This is matched by a deterioration of institutional management indicators, such as transparency of changes in government policies and regulations (86th, slipping 27 places from the 2011 TTCI). The perception that foreign ownership is prevalent has been on the decline as well (from 21st in the 2011 TTCI to 34th in the 2013 edition). Consequently, Peru's performance on these indicators contributes to its decline in the overall TTCI since 2011.

Improving the highlighted institutional impediments does not require remarkable financial investments, yet it could boost Peru's T&T competitiveness, as well as productivity in other sectors.

It should be noted, however, that the current TTCI does not yet reflect Peru's recently joining the Pacific Alliance. The Alliance, a mechanism of economic integration and trade with Chile, Colombia, and Mexico, established in 2011 and formalized in 2012,

aims at creating an integrated area to enable the free movement of goods, services, capital, and people while putting a "special emphasis on Asia Pacific." With a total population of over 208 million people, a GDP of almost US\$2,000 billion, and trade representing over 42 percent of the region's volume,<sup>22</sup> the integrated market could be a substantial source of growth for Peru's overall economy, attracting more investments. The Alliance could also spur the T&T sector if, in order to achieve more integration, there is an improvement in infrastructure and travel facilitation for tourists visiting from other Alliance countries or those from farther afield who wish to visit multiple countries in a single trip.

## PILLAR 2: ENVIRONMENTAL SUSTAINABILITY

This pillar measures the policies and outcomes of environmental regulation, such as the extent of enforcement of environmental measures, the level of air pollutant emissions, the number of species under threat of extinction, and ratification of international treaties, which indicates the level of political will to commit to environmental standards. Since the tourism industry clearly has an environmental footprint, this pillar also assesses the ability of the T&T sector to develop in an environmentally sustainable way within a country.

Natural resources constitute a key attraction for Peru's tourism (as described in the Natural Resources pillar section, below), and they are particularly important for some regions, such as Madre de Dios, Ancash, Amazonas, and San Martín. These regions rely on ecological, adventure, and trekking tourism. Considering

## Box 1: FDI Policy in Peru<sup>1</sup>

Latin America saw a strong increase in foreign direct investment (FDI) inward flows in the last decade. South and Central America attracted US\$149.4 billion in FDI in 2011, reflecting a strong and near-constant growth since 2006, when the region received US\$66.7 billion.<sup>2</sup> Peru received a strong FDI inflow in 2011 (US\$8.2 billion),<sup>3</sup> more than double what it received five years before, and fifth in size in the region after Brazil, Mexico, Chile, and Colombia.

When companies look for investment opportunities in developing countries, they search for large and growing markets, a stable macroeconomic outlook, strong rule of law, and openness to international trade. In this respect, Peru benefited from being part of a growing region as much as from its own rich endowments in natural resources. In addition, policy reforms at the beginning of the 1990s played a role in attracting a significant share of the investments flowing to Latin America by creating better conditions for businesses to operate and opening Peru to international trade.

A number of measures taken since the early 1990s indicate that the government's FDI regime has become progressively more open and welcoming. First, the constitution was modified in 1993 to redefine the role of the state in the economy, encouraging private-sector growth and investment while setting clear principles for international investments, such as equal treatment of foreign and national investors and guarantees against expropriation.<sup>4</sup> Second, privatization occurred in almost all sectors, including fisheries, finance, mining, telecommunications, and energy. Third, connected to this measure, the government leveraged concessions granted to local and international private investors to build, upgrade, and manage infrastructure. For example, since 2001, the Jorge Chávez Airport of Lima has been operated by the Lima Airport Partners S.R.L. (LAP). This entity is 70 percent owned by the German Fraport AG, which also operates the Frankfurt airport. The remainder is owned by the World Bank's International Finance Corporation (IFC) and by the Fund for Investment in Infrastructure, Public Services and Natural Resources, managed by AC Capitaes SAFI S.A. The Peruvian Government has granted LAP a 30-year concession for the airport's operation and expansion. Finally, since 1991, Peru has signed bilateral investment treaties with over 30 countries and has entered free trade agreements with several trade partners, including the United States, Colombia, the European Union, and Korea; moreover, it became a member of the Multilateral Investment Guarantee Agency (MIGA). In 2002, Peru created the Peruvian Investment Promotion Agency (ProlInversión).<sup>5</sup>

Starting with the Foreign Investment Promotion Law (Decree Law—DL 662) of September 1991 and continuing with other measures adopted by the government, FDI has benefited from a comprehensive and favorable regime. In a nutshell, the key features of the FDI regime can be summarized as follows:

- **Investment openness**

- All sectors and regions of the economy are open to FDI (with the exception of foreign ownership of natural resources within 50 kilometers of Peru's borders, as established by the constitution; although this

exclusion can be waived by decree on a case-by-case basis).

- Investors are not required to obtain special approval or registration.
  - There is no minimum size of investment restriction on FDI.
  - No discrimination exists between local and international investors regarding rules about ownership interest or management control.
  - There are provisions for employees to acquire up to 10-percent ownership of enterprises being privatized, but such provisions apply equally to enterprises owned by foreign and national investors.
  - No performance obligations or operating restrictions apply exclusively to FDI.
- **Investment protection and dispute settlement**
    - Repatriation and convertibility of investment is guaranteed, as are free remittance abroad of profits, proceeds of asset disposals, royalties, and payments for the use of technology.
    - The legal stability regime for foreign investment reinforces investor protection, for both individual investors and enterprises, by giving contractual assurances for 10 years against any change in the legal framework. Even relatively small investors and enterprises may qualify to enter into such agreements.
    - International investors have the right to submit disputes arising from contractual relationships with the state to national or international arbitration. In this connection, it should be noted that Peru joined the International Centre for Settlement of Investment Disputes in 1993.
  - **Foreign exchange**
    - Local currency is freely convertible into other currencies for current and capital transactions, and investors have access to the most favourable exchange rate for inward and outward remittances.
  - **Taxation**
    - Tax incentives on investments provide for a special regime for value-added tax.
    - Investors can obtain a refund of taxes paid or transferred on imports and/or the domestic acquisition of capital assets, intermediate goods, services, and construction contracts during the pre-operation stage of infrastructure projects and public utilities.<sup>6</sup>

As this summary shows, the regime governing FDI in Peru has become progressively more open over the past two decades and is presently very open and encouraging to foreign investors.

International observers such as the United Nations Conference on Trade and Development (UNCTAD) and the World Bank hail the FDI framework as “state of the art.”<sup>7</sup> The conducive environment has certainly contributed to the increase in investments experienced in the last decade and, hopefully, will continue to attract funds to fuel further growth. Peru could benefit from its membership in the Pacific Alliance, as investors will have access to a bigger market, provided that the Alliance will set up a shared regime governing FDIs.

(Cont'd)

**Box 1: FDI Policy in Peru (Cont'd)****Notes**

- 1 The contents of this box are based on UNCTAD (United Nations Conference on Trade and Development), *Investment Policy Review: Peru*, 2000, [http://unctad.org/en/docs/iteijpmisc19\\_en.pdf](http://unctad.org/en/docs/iteijpmisc19_en.pdf).
- 2 UNCTAD, *World Investment Report 2012: Towards a New Generation of Investment Policies*, <http://www.unctad-docs.org/files/UNCTAD-WIR2012-Full-en.pdf>. The only year in which there was no growth in FDI was 2009.
- 3 UNCTAD, *World Investment Report 2012*.
- 4 Except when public interest or national security is concerned, or as a result of due process where fair compensation must be paid in advance.
- 5 ProInversión, <http://www.proinversion.gob.pe/default.aspx?ARE=1&PFL=0>.
- 6 Provided that these have been destined for operations not burdened with such taxes and are used directly in the execution of investment projects in infrastructure works and public utilities.
- 7 UNCTAD, *Investment Policy Review: Peru*, 2000. See also The World Bank Group, "Investing Across Borders," <http://iab.worldbank.org/Data/Explore%20Economies/Peru>.

the importance of the natural environment for Peru, the country's overall performance on this pillar (85th) remains somewhat below expectations. Peru ranks ahead of some countries in the region, such as Chile (88th) and Colombia (97th), but lags behind Brazil (30th) and Ecuador (65th). When considering countries from outside the region that attract tourists with their natural environment, Peru ranks lower than Malaysia (61st) and New Zealand (22nd).

However, the slight upward trend in ranking on this pillar over recent years shows that Peru is paying attention to the environment (see Box 2) and aiming to develop the T&T industry in a sustainable way (53rd, ahead of neighbouring Chile, Ecuador, Colombia, and Brazil). The government has made efforts to protect the environment: it has signed 20 out of the 25 international treaties monitored by the Index, and it has imposed increasingly stringent regulations related to the environment. Still, more efforts are required to achieve higher sustainability standards. Peru ranks 94th in the TTCl for the level of its particulate matter concentration, with 43 micrograms per cubic meter, twice as much as Colombia and Brazil. It is only 79th for the stringency of environmental regulation, and has not been able to enforce the environmental regulation it has introduced (99th), lagging behind Mexico (77th) and most countries in Latin America. The growing number of threatened species is also worrisome. The country has seen a

decrease of approximately 10.2 percent in its endemic species, placing Peru at 118th position worldwide. The disappearance of species most likely results from a loss of natural habitat due to deforestation. About 0.35–0.5 percent of forest area is lost each year, primarily as a result of agriculture expansion, mining operations, infrastructure development, and illegal logging.

Peru needs to make important choices that will determine its future development path. The country is endowed with the world's third-largest area of tropical forest and unique biodiversity, but also with very rich mineral deposits. Nevertheless, it is low-income country, with a GDP per capita of US\$5,700 and a population growing at an average rate of 2 percent per year. The country therefore faces difficult strategic choices related to increasing prosperity while managing its rich natural and environmental wealth effectively and wisely. It must not stifle the development of one industry by concentrating on another, and it must safeguard resources for future generations. Against this background, Chapter 2 will analyse in greater depth the challenges and opportunities that Peru will need to address to develop its T&T sector in two tourism hot spots: Cusco and Madre de Dios.

**PILLAR 3: SAFETY AND SECURITY**

Safety and security conditions are critical for the development of the T&T industry, both from the travelers' perspective, as tourists are deterred from traveling to areas they perceive as dangerous, and from the business perspective, as crime and terrorism impose additional costs. For these reasons, this pillar measures safety and security in terms of business costs of crime and violence and business costs of terrorism, which data also provide insight into the level of criminality and the threat of terrorism in a country. Additionally, this pillar takes into account the extent to which the police can be relied upon to provide protection from crime, and the prevalence of fatal road traffic accidents.

Overall, Peru is not considered a safe country. It ranks 118th in the TTCl, continuing a downward trend over the past three assessments.<sup>29</sup> This is a matter of great concern for Peru, as it attains its second-poorest result in this pillar, after ground transport infrastructure (see below). Peru performs similarly to Colombia (115th) in this area and only slightly above Mexico (121st). All three countries are below average for the region. Addressing this issue is, therefore, one of the main priorities for the country's development ambitions, as safety and security measures drive a country's attractiveness as a tourist destination and provide a conducive environment for the business sector to operate.

Peru ranks 121st for the costs of crime and violence, which resonates with the United States Department of State's rating of Peru as "critical" for general crime, with one of the highest reported crime rates in Latin

## Box 2: Peru's Strategy for Sustainable Tourism

Peru is an extremely attractive destination for tourists. The country is endowed with abundant natural resources. Approximately 54 percent of Peru's land area is covered by lush rainforest, providing ample timber and water resources. There are also cultural offerings for the millennial market, including magnificent historical sites and numerous ethnic communities. To protect these resources for present and future generations, the government of Peru has put into place a sector development strategy based on sustainability.

### Cultural Preservation: Machu Picchu and Cusco

Peru has embraced sustainable travel & tourism as an integral part of its development plans for the sector. Machu Picchu is a destination focused on sustainability and cultural and environmental preservation. The site is closely monitored for degradation and the effects of human influence, and access to it is severely controlled. In addition, there are strict regulations on behaviour on the Inca Trail, as well as in Machu Picchu, commanding respect and awareness of the site's fragility.

The Global Sustainable Tourism Council (GSTC) has selected the Machu Picchu–Cusco–Sacred Valley corridor as one of the first South American destinations for the second round of its Criteria for Destinations program.<sup>1</sup> Overseen by GSTC's Destination Stewardship Working Group and managed by Sustainable Travel International, the program is "designed to orient destination managers, communities, and businesses toward the steps that are needed to sustain their natural and cultural assets, while benefitting local communities."<sup>2</sup>

### Environment: Preservation of Fauna and Flora

Peru's extremely rich natural environment is home to a number of exceptional natural species, all of which require their habitats to be well preserved and undisturbed. For instance, tourists in the country can view more bird species (including, for example, the condor in the Colca Canyon) than in North America and Europe combined—as well as 4,200 butterfly species, more than six times the number of species in North America. Llamas, guanacos, vicuñas, and alpacas form an integral part of Peru's highland history, lifestyle, and culture, serving as sources of food, clothing, and labor.

Peru is also home to a portion of the Amazon Rainforest, covering approximately 54 percent of the country and providing significant biodiversity (including, for example, approximately 3,000 species of orchids). To protect the rainforest, the government has set out clear ecotourism principles and has launched conservation efforts for tourism development. A number of ecotourism operators and resorts exist in the region. Ecotourism trips are in controlled areas,

and guides are given specific preservation instructions to be passed on to travelers. Preserving the rainforest has been on the Peruvian government's agenda for a number of years, most notably since 2000, when the government introduced new forest legislation aimed at regulating and supervising the management and conservation of the forest and wildlife in Peru.

Presently, one of the most important threats to preserving the Peruvian Amazon is deforestation resulting from resource extraction (rubber and timber) and from illegal logging, which appears to be increasingly prevalent in Peru. Subsistence migrant farming, illegal logging, commercial agriculture, mining, and road construction are also important causes of deforestation.

Hence, greater attention should be paid to this issue. For example, illegal logging is on the rise because the permit system in place facilitates logging within indigenous territories, and no illegal logging charge has resulted in imprisonment. While some initiatives are under way in Peru to address this issue, other countries could serve as an example of how to protect the rainforest. The Yasuní-ITT initiative put in place by Ecuador to protect rainforest from oil drilling is an interesting example in this respect. Ecuador has approached the international community to receive compensation for forgone revenues from oil exploration.

### Community-Based Tourism

Numerous community-based tourism initiatives, such as InkaTerra, exist in Peru. These include accommodation, tours, and experiences that are locally owned, locally managed, and locally staffed. These initiatives support local communities through job creation and financial injections. Additionally, they are usually concerned with preserving the natural environment in the surrounding area. Aside from contributing to the local economy by staying in local accommodations, travelers can participate in community-based tourism by experiencing customs, engaging in agriculture, and learning local traditions such as dances and songs. While travelers benefit from an enriched experience of the local lifestyle, they assist in the preservation of Peru's traditions and customs.

### Notes

- 1 The other South American destination is Lake Llanquihue–Frutillar–Puerto Varas in Chile's Lakes Region.
- 2 Global Sustainable Tourism Council, "Chile and Peru Pilot New Global Sustainable Tourism Criteria for Destinations," <http://www.gstccouncil.org/about/news-a-announcements/721-chile-and-peru-pilot-new-global-sustainable-tourism-criteria-for-destinations-.html>.

America.<sup>24</sup> Although the most common crimes are petty crimes such as robbery and pickpocketing, more serious crimes, such as armed robbery, assault, and kidnapping, are also increasingly frequent. According to Peruvian National Police statistics, assaults and robberies involving violence are not very common but have been

rising over the past few years. Although lower than in neighboring Colombia (34.6 percent) and Ecuador (18.4 percent), the homicide rate in Peru is still quite high at 10.3 percent,<sup>25</sup> proving that criminality represents a serious obstacle to the development of the T&T industry. In addition to crime-related violence, recently there have

been episodes of violence between authority forces and movements protesting against mining operations, contributing to a more general sense of insecurity in the country. This is exacerbated by the perception that the police is not reliable (124th), worse than in Ecuador (112th) and only slightly better than in Mexico (130th). Also, terrorism is still a concern (115th). Although the situation has improved significantly over the past 20 years, and although terrorist activities are now restricted to a few areas, there are still organizations (such as Sendero Luminoso and others linked to narcotics trafficking) that operate in the country. The endurance of such organizations explains Peru's ranking on this indicator; far below countries such as Brazil (11th) and Chile (48th).

Finally, Peru registers one of the highest rates of fatal road accidents in the region, and ranks 90th worldwide, representing another source of risk for travelers.

The overall low level of safety and security in Peru is indeed a burden for the development of the T&T industry. Certainly, its deteriorating performance on this pillar is another reason for its lower overall global ranking. Tourists' perceptions can be changed in part through targeted communication (see Box 3 for an example from Colombia), yet as long as international agencies and foreign affairs departments warn tourists about the security situation in Peru, many tourists are likely to be deterred from traveling to the country. Improved security will eliminate this impediment and, by cutting the cost of operations, will entice increased business presence. The benefits of a more secure environment extend to general competitiveness and the overall business climate. Efforts to improve security are thus of paramount importance, both for fostering the T&T industry and for the overall development of the country.

#### **PILLAR 4: HEALTH AND HYGIENE**

Alongside security, health is an area in which travelers need to be reassured in order to be attracted. Many would rather not visit countries where sanitation conditions are less than optimal or where they would have little assistance in case of health problems. This pillar assesses the health and hygiene conditions in a country by measuring to the accessibility of improved sanitation and drinking water and the availability of physicians and hospital beds.

Peru does not fare very well on this dimension. It places in the lower part of the global ranking at 98th and in a rather low position in the regional context, ahead of only Colombia and Bolivia. The main driver of this performance is restricted access to basic water and sanitation, as only 71 percent of the population has access to improved sanitation (93rd) and 85 percent has regular access to clean drinking water (104th). Although Peru meets the United Nations Millennium Development Goals set for these indicators, these

results reveal that Peru is still in a rather early stage of development, especially in rural areas. In addition, in the tropical climate of some regions of Peru, the lack of sanitation can exacerbate the diffusion of communicable diseases. Therefore, ensuring universal access to water and sanitation should be a priority not only for the T&T industry but for the country as a whole.

The limited availability of physicians (91st) and hospital beds (99th) is also worrisome. With less than one physician per 1,000 inhabitants, Peru has one of the least developed health care infrastructures in Latin America, where only Colombia (119th) performs worse. In particular, the scarcity of hospital beds (15 beds per 10,000 population), similar to Ecuador's and only slightly better than Kenya's, indicates the long road that Peru has yet to travel to achieve a higher health standards. It is to be hoped that, as it continues to grow at a fast pace, Peru will be able to achieve this result in the next few years. In this context, the T&T industry could offer the incentive to improve the sanitation infrastructure in the more remote areas of the country, as well.

#### **PILLAR 5: PRIORITIZATION OF T&T**

In addition to setting rules and regulations conducive to a strong business environment, the government may also play a direct role in sustaining the T&T industry. Prioritization of the sector by the national authorities is reflected not only in direct monetary contributions and national marketing campaigns, but also in efforts to monitor the industry's performance and to measure progress. This pillar measures how important the T&T industry is within the government agenda, gauging government expenditure and the effectiveness of marketing dedicated to T&T, as well as the perception of prioritizing and the timelines and scope of T&T statistics provided by the government.

On this dimension, Peru ranks 58th overall, placing it on par with Chile (56th) and far ahead of Brazil (102nd) and Colombia (88th). Peru makes great—and increasing—efforts in marketing the country to tourists, and ranks 28th for the effectiveness of its national marketing. However, these campaigns are generally concentrated in Peru's principal current source markets, South, Central, and North America, while much less attention is dedicated to Europe and potential new markets, such as the emerging Far East and the Middle East.<sup>26</sup> This is consistent with the low international tourist arrivals from these countries (17 percent of all international arrivals<sup>27</sup>), and reflects the current map of existing bilateral Air Service Agreements with these countries (see Pillar 1, above). This indicates that Peru does not exploit the potential of these new markets, but that it could capture more of these markets' growing demand through marketing campaigns and improved air connectivity, including more competition, more routes, and lower charges.

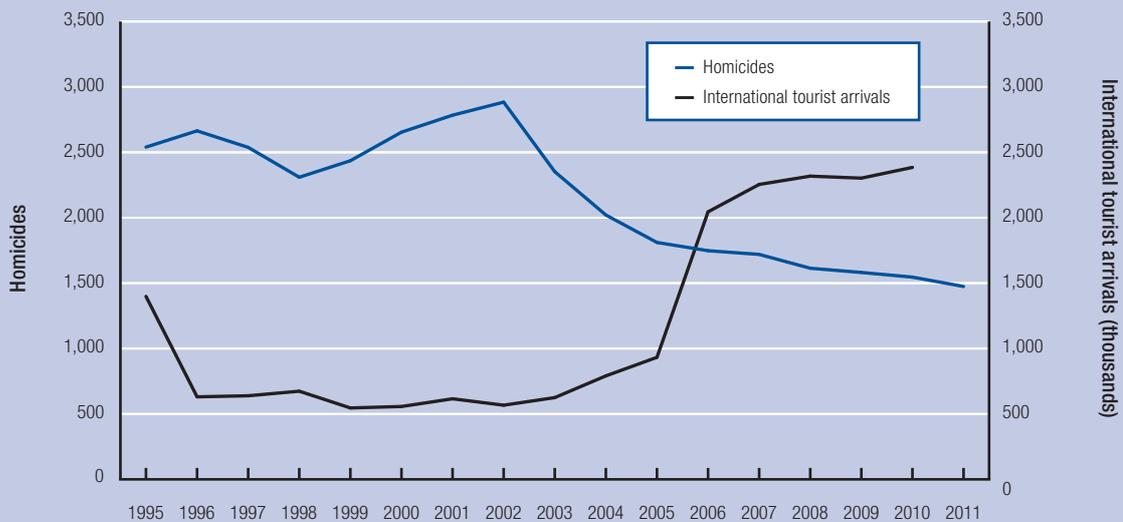
### Box 3: Re-positioning Peru in the Minds of Tourists—Learnings from Colombia

During the 1990s and early 2000s, Colombia suffered from a high degree of violence caused by the FARC guerrillas, by paramilitary groups and criminal bands that specialized in kidnapping, extortion, and robbery, by drug cartels, and by rampant common crimes. This sense of insecurity sharply affected travel and tourism to the country.

Since 2002, improving security has been a national priority under the Democratic Security Policy (2002–2006), the Policy for the Consolidation of Democratic Security

(2006–2010), and the ongoing Comprehensive Security and Defense Policy for Prosperity. These policies tackled organized crime, notably that of drug traffickers; minimized the activities of the FARC with the peace process announced on September 4, 2012; and fought common crime with more policing, especially in particular cities of the country. As a result, crime rates have dropped sharply. According to the United Nations Office on Drugs and Crime, homicide rates have almost halved since 2002, dropping

Figure 1: Number of homicides and international tourist arrivals, Colombia (1995–2011)



Source: UN Office on Drugs and Crime 2013 and UNWTO.

from 28,837 in 2002 to 14,746 in 2011 (see Figure 1). The number of kidnappings has fallen from 1,442 in 2004 to 282 in 2010.

However, despite these improvements, changing the perception of Colombia from an insecure to a rather safe destination was not easy. For a long time, the international news of Colombia turned on drug trafficking and the sense of insecurity in the country. The need to rebrand and reposition Colombia to adjust to the new situation triggered the promotion campaign, “Colombia, the only risk is wanting to stay.”<sup>1</sup> The campaign organized by Proexport (the government agency charged with promoting exports, foreign investment, and tourism) aimed at attracting tourists

from specific markets to areas such as Bogotá, Barranquilla, Huila, Amazonas, Cartagena, and San Andrés. The campaign was released on television, in digital media, and in international tourism fairs. While it is difficult to isolate the net effect of the campaign, it is widely accepted that it helped to transform the country's international image, effectively communicating the changed security situation experienced in the country and resulting in a remarkable rise in the number of tourists visiting Colombia (see Figure 1).

#### Note

<sup>1</sup> Proexport Colombia, “Official video of the tourism campaign,” <http://www.colombia.travel/en/mice/multimedia/videos/official-video-of-the-tourism-campaign>.

The government's intent to prioritize tourism is also measured by the relevant indicator derived from the Forum's Executive Opinion Survey. In this indicator, Peru ranks 60th, with a score of 5.4 out of 7. Peru's good result is validated by the fact that tourism is the third-largest export, that the national statistics department

monitors closely the performance of the sector, and that the government has a national strategy in place (see Box 4) aimed at achieving the yet unfulfilled potential of this country's tourism industry. At the same time, Peru ranks only 87th in direct T&T expenditure. These expenditures consist mainly of transfers and

#### Box 4: PENTUR 2008–2018: The National Strategy for Tourism

The National Strategic Plan for Tourism—PENTUR 2008–2018—is the official document produced by the Ministry of Commerce and Tourism, providing guidelines for the development of tourism in Peru. Recently the National Strategic Plan for Tourism has finished an updating process which brings the new horizon of the plan to 2021. The plan includes a set of actions that public and private bodies should take in both the short and long term to strengthen the performance of the T&T sector.<sup>1</sup>

The authorities recognize the strategic importance of the travel and tourism sector, and seek to develop it through a holistic approach and in line with sustainable progress.

The plan is structured along four main areas:

- **Development of tourist destinations**
  - It aims to build and upgrade local infrastructure, including sanitation, electricity, connectivity, and ground and air transport infrastructure, and to improve waste management and tourist services.
  - It seeks to reinforce the level of security in the country, especially for tourists, while fighting sex tourism.
- **Communication, promotion, and marketing**
  - It promotes a national communication campaign to generate awareness of the benefits of tourism, and offers practical assistance to entrepreneurs and tourism operators.
  - The plan aims to monitor trends in local and foreign tourist demand, to be used as inputs for marketing campaigns, in order to target the desired segments of demand. This will be reflected in all communications, as well as in the specific positioning of each destination.
  - It plans to improve the efficiency of local operators in terms of designing better value propositions, such as more interesting and innovative tourist packages.

- **Institutional coordination and management**
  - The plan aims to monitor the industry's situation and to set up a public-private body that will represent the tourism sector and coordinate with local authorities to implement the national policy.
  - It plans to reinforce communication with the private sector by increasing the relevance of the advisory committee (Comitè Consultivo de Turismo), to increase the technical capacity of regional and local governments, and to promote and execute its investment projects.
- **Business development**
  - It plans to launch a program of incentives for private investment in the tourism sector, in coordination with ProInversión, the national agency for private investment.
  - It includes the creation and constant update of an inventory of national tourist services.
  - It plans to set up a system for sharing specific needs for tourism development according to the specificities of local demand, and to promote rural cooperative tourism.
  - Notably, it mentions the importance of improving the quality of human resources by creating training programs and adopting certification schemes.
  - It proposes the creation of a network connecting tourism with manufacture and artisanal production.

#### Note

1 Ministerio del Comercio Exterior y Turismo, "PENTUR," <http://www.mincetur.gob.pe/newweb/Portals/0/PENTUR%20FINAL%20septiembre%20%282%29%20%284%29.pdf>.

subsidies aimed at providing T&T-related services, such as culture and recreation, and finance national parks and museums, tourism promotion, visitor information services, and administrative services. Although 2.7 percent of government budget is perhaps insufficient to promote and manage Peru's extensive cultural resources, the amount is not negligible, considering that government revenue is only 20 percent of Peru's GDP and the country needs to allocate funds across several other priority areas.

#### PILLARS 6–7: AIR AND GROUND TRANSPORTATION AND CONNECTIVITY

Transportation infrastructure is of paramount importance for a country's development and productivity. A well-developed ground and air transport network enables households and businesses to have access to basic goods and services, such as food and education, to deliver products to the relevant consumers, and to trade with international markets. It is evident that

connectivity is even more essential for the T&T industry, as a lack of proper infrastructure restricts transport services and reduces access to tourist destinations. Many developing economies struggle to develop high-quality, extensive infrastructure, often because of the limited financial resources available to fund construction and maintenance. Public-private partnerships are often indicated as one possible solution for raising the capital required for financing these projects, together with loans from multilateral development agencies and, to a certain degree, FDI. Institutional coordination is key.

It should be noted that planning and developing infrastructure projects tends to be more efficient when it is the result of a joint effort among several national and regional authorities, as this maximizes available resources and ensures the highest impact for all the relevant economic sectors and communities of each project.

For Peru, developing a well-structured and balanced transport network is one of the main priorities identified

by the National Plan. The government is aware of the importance of improving transport facilities. Yet more time is needed to turn plans into an actual transport network, especially for ground transport, due to the long time needed to design, build, and operate the infrastructure at the national level.

In the infrastructure-related indicators of the TTCI, Peru's performance is mixed (see Figure 4). With regards to air transport indicators, the country's ranking has gradually improved, and it now achieves a middle ranking of 75th. On the other hand, ground transport seems to be developing at a slower pace, remaining the area where Peru attains its lowest performance, placing 121st.

### Air transport infrastructure

This pillar includes measures of the quality of local and international air transport, as well as indicators of the quantity of air transport, such as available seat kilometers (which encompasses carrying capacity of passengers and extent of routes), number of departures, and number of airlines operating in the country.

Air transport is a key means of transportation in Peru, especially for tourism. According to airport authorities, in 2012, approximately 2.6 million international travelers arrived in the country's main international hub, the Jorge Chávez Airport of Lima.

Air transport in Peru is reasonably well-developed, although it requires further investment. The country obtains its best results in this pillar for the availability of domestic air seat kilometers (33rd), followed by the availability of international air seat kilometers (44th), where it increased its offering by almost 20 percent since the last assessment. The quality of air transport infrastructure is also perceived as improving. Peru achieves the 74th place in this assessment, up 4 places since the 2011 *Report* and an impressive 20 places up since the 2009 edition.

Internationally, Peru is connected with the main cities in Latin America and is well-connected with the United States. For Europe, however, there are direct flights only to Madrid, Paris, and Amsterdam, originating in Lima. These routes confirm that the United States and Latin America are the main tourist and business travel source markets of Peru, while Europe, the Middle East, and Asia are presently less relevant. This, not surprisingly, correlates well with Peru's air service agreements map, which seems to point to a national strategy that focuses on traditional source markets as the primary countries/regions of focus, and which most likely is one factor limiting tourist arrivals from other markets. Peruvian air transport is perceived as providing a good connection to overseas markets (59th, with a score of 5.0 out of 7), offering great potential to the country's businesses from the primary source markets. Peru achieves the 71st ranking for the number of operating airlines, with 25 active companies in the country, more than Chile (74th with

23 operating airlines) but less than Colombia (59th with over 29 companies). This seems to indicate that more openness is possible with respect to bilateral air agreements and that this strategy, if adopted, would probably further increase the number of business travelers to the country.

Finally, Peru's lowest results in this pillar relate to airport density (75th) and departures (82nd). While both variables showed slight improvements over the last assessment, this edition's lower rank might signal that the country's efforts to improve airport facilities are no longer sufficient to keep up with increasing demand.

### Ground transport infrastructure

This pillar mainly assesses the quality of roads, railroads, and ports, and also the extent of the road network as measured by the number of kilometers of road per million population. In Peru, ground transport (121st) is the main area for improvement in the TTCI, together with safety and security. With a density of only 10 kms of road per million population, Peru ranks 116th worldwide on this measure. The World Bank estimates that only 14 percent of the road network in the country was paved as of 2006,<sup>28</sup> which by way of comparison is worse than the situation in Cameroon, Africa (17 percent) in the same period. This result highlights the urgent need for the government to upgrade the road infrastructure, especially in terms of renovating unpaved roads and repairing roads in poor condition.

The Forum's Executive Opinion Survey ranks Peru 101st for the quality of its ground transport and 99th for the quality of its roads. For this reason, projects such as the World Bank's Peru Decentralized Rural Transport Project are of extreme importance for the country, as they increase road infrastructure capacity and rural development. The Rural Transport Project started in 2006 and was finalized in March 2013. With a grant of US\$150 million, the project built rural roads in 15 provinces. The impact of the project is yet to be assessed, but it is certain that the project has already restored over 3000 km of road, fostering productivity in agriculture and connecting remote communities.<sup>29</sup> The government has also launched for bid several projects for the development of ground transport, including railroads and ports. This is very welcome and will contribute to future improvement in these dimensions, where Peru presently ranks 95th and 110th, respectively. However, it should be noted that Peru's present ranking is ahead of Colombia's and Brazil's, highlighting how difficult it is for most countries in this region to prioritize the development of sound infrastructure.

To build and upgrade infrastructure in Peru and in the rest of Latin America has been difficult historically, not only because of limited access to finance but also because of the lack of political cohesion and of openness towards more regional integration. Additionally, infrastructure development requires huge investments, which often necessitate government involvement through

public finance or public-private partnerships. This requires good public governance, which is, unfortunately, a challenge for the whole region (see Figure 5), making FDI and investments by multilateral development agencies and foreign companies more problematic. The consequence is a low level of infrastructure development across the region, especially at the intra-regional level. A different strategy is needed: authorities should adopt a more holistic approach, such as, for example, the framework proposed by the World Economic Forum to steer governments and key stakeholders toward best practices, in order to overcome some of the common difficulties in achieving infrastructure development.<sup>30</sup>

The Peruvian National Plan for Tourism (see Box 4) recognizes the need for infrastructure development as a priority area for the country. Moreover, with regional integration underway and the formation of blocs such as the Pacific Alliance, there is hope that intra-regional infrastructure will be dealt with alongside trade liberalization.

### PILLAR 8: TOURISM INFRASTRUCTURE

This pillar assesses tourism-specific infrastructure, such as the number of hotel rooms (per hundred population), the number of automated teller machines (ATMs) accepting Visa cards, and the presence of major car rental companies. These measures are used as proxies for the extent of accommodation, financial payment systems, and transportation rental services available in the country.

For Peru (67th), this is an area of relative strength, as it ranks close to Brazil (60th) and Mexico (61st), and higher than Malaysia (73rd). Its hotel infrastructure (45th) has increased significantly since 2008, reaching 0.7 rooms per 100 inhabitants. This is the best result in Latin America, topped only by the Central American Costa Rica (35th) and Barbados (7th). Meanwhile, new hotel projects aim at improving the offering even further going into the future. The number of ATMs available in the country is also increasing steadily, passing 220 distribution points per million population in 2012 and ranking 81st worldwide. Additionally, 6 out of the 7 international car rental companies considered in the Index are present in Peru (32nd), confirming again the openness of the economy to international investors. This area reflects mainly private-sector activity in the country, as the government's role is only to set up the right policies and regulatory environment in order to generate investments and the development of a strong business sector.

### PILLAR 9: ICT INFRASTRUCTURE

Information technology affects all sectors of developed and developing economies alike. ICT has transformed the T&T industry and continues to have a strong impact on it. Travelers today commonly use online tools for booking accommodations and transportation, read traveler reviews, exchange tips for planning trips,

communicate via social media about their experiences and perceptions, and more generally look up information relative to a country's tourist activity offerings. Travelers are increasingly equipped with portable devices and with the expectation of accessing online information everywhere they go, and they are rapidly changing the way tourism is offered by both service providers and governments—with eTourism becoming central to the eGovernment and business transformation.

The TTCI assesses the development of ICT hard infrastructure and its relative usage within the country. These are measured in terms of penetration of traditional and broadband landlines, number of individuals using the Internet, and mobile subscriptions. In 2013, for the first time, this pillar also includes a measure of the diffusion of mobile broadband, in order to capture the importance of mobile devices with access to data and online information.

Peru ranks relatively low (83rd) in this area. The top-ranking Latin American country is Uruguay (46th), followed closely by Chile and Brazil (52nd and 55th respectively). However, there are some positive aspects in Peru's performance in ICT infrastructure. For instance, Peru has already passed the 100 mobile subscriptions per 100 population threshold, placing the country at 57th place, a good result given the country's stage of development. But, although Peru is on an improving trend over the past five years, most countries are upgrading their ITC infrastructures at a fast rate, and thus the progress made so far is not sufficient to catch up. This is why the efforts made have not translated into a higher ranking. For example, the Executive Opinion Survey reveals that the use of ICT for both business-to-business and business-to-consumer transactions is reasonably common (among those who have access to internet) in all Latin American countries, and Peru is no exception, obtaining a score of 4.8 and 4.6 out of 7 on these two dimensions respectively. Yet this is not enough to ensure a good position, and Peru trails behind most neighbouring economies, especially in business-to-business usage (79th).

Conversely, the relatively low number of fixed lines per population (85th, with 12.5 fixed lines per 100 population) deserves some attention. Although mobile services are supplanting fixed lines, businesses still need access to reliable telephone service, especially in the hospitality sector, not only for calls but, more important, for Internet access. Perhaps in the future, developing countries will leapfrog to fully mobile ITC networks, but at this stage, Peru still needs to expand its landline network. Possibly due to its relatively high cost, only a minority has access to fixed-line broadband services (4 subscriptions per 100 people, ranking 81st). Furthermore, penetration of mobile broadband technology (107th) is poor, with only 1.4 subscriptions per 100 people. Therefore, it will take time before broadband connections

Figure 4: Performance in the infrastructure pillars of the TTCI: Peru and selected comparators

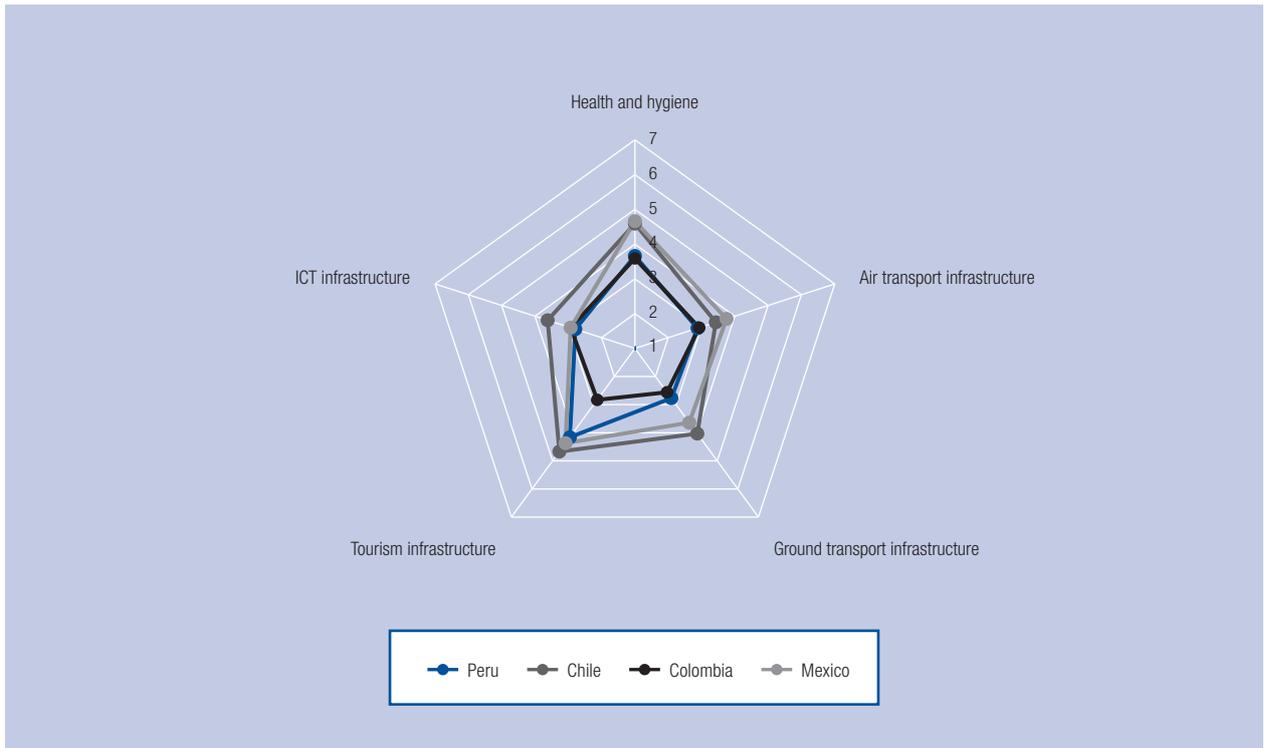
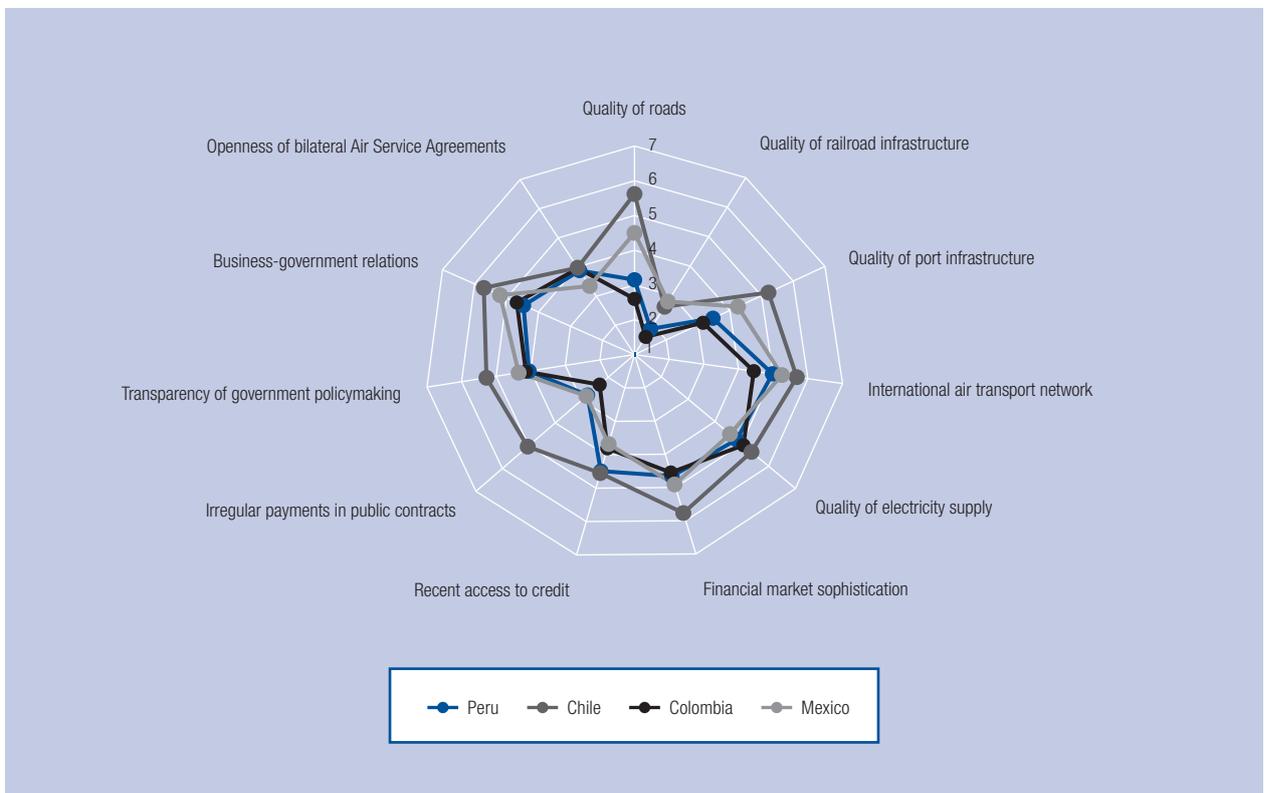


Figure 5: A holistic view of infrastructure development, selected TTCI indicators: Peru and selected comparators



can be relied upon as the main communication system for both business and personal usage.

The digital divide has yet to be bridged in Peru, with many areas to improve using scarce financial resources. However, ensuring adequate digital connectivity is as important as developing transport infrastructure, as it enables remarkable productivity gains for all industrial sectors and, in particular, for the T&T sector, where lack of Internet access translates into missed business opportunities.

#### **PILLAR 10: PRICE COMPETITIVENESS IN THE T&T INDUSTRY**

Price competitiveness plays a role in attracting tourists, who often compare destinations on a value-for-money basis. Therefore, this pillar takes into account the most relevant elements affecting tourists' budgets. The cost of accommodations, measured by the hotel price index, is certainly an important component of travel costs. Another component is the cost of living, measured by purchasing power parity, where developing countries often have a competitive advantage driven by the lower standard of living. This pillar also includes the price of fuel, which can represent a relevant cost to travel budgets, and two taxation indicators: an index of ticket taxes and airport charges, and a measure of the distortionary effect of general taxation, derived from the Executive Opinion Survey.

Peru does not stand out as a price-competitive destination, especially taking into account its stage of development. It ranks 103rd, placing behind several competitors in Latin and Central America, such as Chile (60th), Mexico (33rd), and Ecuador (11th). To put this result in context, Peru is only three places above Spain (106th), indicating that the cost of a vacation in Peru can be comparable to that of travel in a European country. Although the cost of living in Peru, with a purchasing power parity of 0.58, is comparable to Ecuador's (0.54) and lower than Mexico's (0.66), the price tourists need to pay for fuel and hotels is much higher. Peru ranks 71st for fuel prices and 62nd for hotel prices, comparable to Brazil (77th and 72nd respectively) and well behind Ecuador (10th and 19th respectively) and Mexico (22nd and 27th respectively). Especially with regard to hotel prices, there seems to be a discrepancy between the market segment attracted (mainly backpackers and alternative travelers) and the price of hotels, which is higher than in other countries.<sup>31</sup>

Even more important, ticket taxes and airport charges are remarkably high (135th), fifth to last in this assessment, and higher than in the 2011 *Report*. Added to the rising cost of living, these charges indeed represent a barrier, and could be discouraging tourists from flying into the country, further explaining the country's lower overall T&T competitiveness compared to past editions of this *Report*. Peru's low price competitiveness could be interpreted as fitting

the national strategy aimed at positioning the country in a higher-end segment. However, at the current stage, considering the general development of infrastructure and resorts, the lack of price competitiveness could be contributing to below-par performance in tourist arrivals. While the T&T sector can be developed according to different strategy lines, Peru should take price competitiveness into consideration more when shaping its plan, and offer a better value proposition across different market segments, in order to capture travelers with different budget lines while ensuring that the market segmentation mix does not strain or deplete the country's resources.

#### **PILLAR 11: HUMAN RESOURCES**

The T&T industry is relatively labor intensive, requiring well-trained human resources to thrive. The availability of education and training within a country are the main drivers of its ability to generate a highly skilled workforce, while the structure of the labor market and the health of workers affect the supply of high-quality human resources. This pillar comprises two subpillars: the *education and training* subpillar, consisting of enrollment rates in primary and secondary education, the quality of the educational system, the availability of specialized training, and the extent to which companies invest in such training; and the *availability of qualified labor* subpillar, which measures the flexibility of hiring and firing practices, ease of hiring foreign labor, and general health measures such as HIV prevalence and life expectancy at birth.

Peru ranks 80th overall in this pillar, which places it in a mid-low position within Latin America, behind Argentina, Brazil, Colombia, and Chile, but ahead of Ecuador, Bolivia, and Venezuela. In terms of education and training, enrollment rates in both primary and secondary education in Peru are both above 90 percent, placing the country in a relatively good position, 51st and 58th respectively. In the Latin American context, this is a good result, higher, for example, than the enrollment rates in Chile (94 percent and 88 percent respectively) and (for primary only) Colombia (88 percent). This result rewards the efforts that the government has made to promote education over the past few decades.

The results are less positive on the quality side, where Peru is assessed as 129th for the quality of its educational system, behind almost all Latin American countries, at a level similar to Paraguay's (130th). Peru's T&T industry would also benefit from strengthening the availability of, and investment in, staff training. The country ranks 84th and 83rd on these measures, at the lower half of the Latin American economies assessed in the TTCl. Having secured access to education for the majority of the population, Peru now faces the challenge of improving the quality of the school system and the extent of training. These represent a harder, yet necessary, step towards higher development standards, and are of critical importance for the T&T industry.

In terms of the availability of qualified labor, Peru ranks 78th, in the middle of the ranking both worldwide and in comparison with Latin American economies, positioned higher than Brazil (96th), Ecuador (88th), and Bolivia (110th), but lower than Chile (one of the best in the region, 23rd) and Colombia (63rd). The main hurdles for Peru in this area lie mainly in the relatively rigid labor market, encompassing hiring and firing practices (104th) and limits on foreign labor (83rd).

In the regional context, however, hiring and firing practices are often regulated, and thus Peru's performance is at a middle point, between the more flexible Colombia, Chile, and Bolivia, on the one hand and, on the other, the more rigid Brazil, Paraguay, Ecuador, Argentina, and Venezuela (last, at 140th). By contrast, Peru's relatively low ranking in ease of hiring foreign labor (83rd) places the country below most Latin American countries. For example, current legislation states that the foreign workforce should not exceed 20 percent of total workers employed locally, and there are also limitations on the salary that can be paid to foreign employees.<sup>32</sup> Therefore, only Brazil, Ecuador, Bolivia, and Venezuela are ranked lower than Peru on this dimension, indicating that the existing regulation is comparatively restrictive.

However, to put these results in context, it is useful to consider the status of the labor market after the pro-market reforms introduced 10–15 years ago. The following analysis is developed along the lines of the Economic Commission for Latin America and Caribbean (ECLAC) 2009 report.<sup>33</sup> At the end of the 1980s, Peru was emerging from a tradition of protectionism and job security. A change in policy orientation in the 1990s brought deregulation and increased flexibility, which, however, did not reduce the number of unemployed. Hence, in the early 2000s, as a reaction to the limited results achieved by the first round of reforms, more regulation was brought back into the system, although at a lower level than in the 1980s. Since then, Peru has remained in an ambiguous state, where the labor market offers neither flexibility to employers nor a high level of protection to employees.

Although workers' contracts provide a minimum wage of 750 Nuevo Soles,<sup>34</sup> as well as vacation and other benefits, and although firing is restricted to specific cases, the informal sector is extensive and erodes the proportion of workers who enjoy an indefinite contract. ECLAC estimates that only 25 percent of the economically active population is on payroll. The remainder is employed by the informal sector or through temporary contracts. Therefore, despite some successful programs, such as Projovent (aimed at training and advancing young professionals), the unemployment level is still relatively high,<sup>35</sup> and there is an insider-outsider issue across generations.

In order to escape from this impasse, Peru could reorient toward a flex-security system, which increases

flexibility in order to eliminate the improper use of temporary contracts and the informal sector, while compensating for it with attention to labor inclusion and security.

## PILLAR 12: AFFINITY FOR T&T

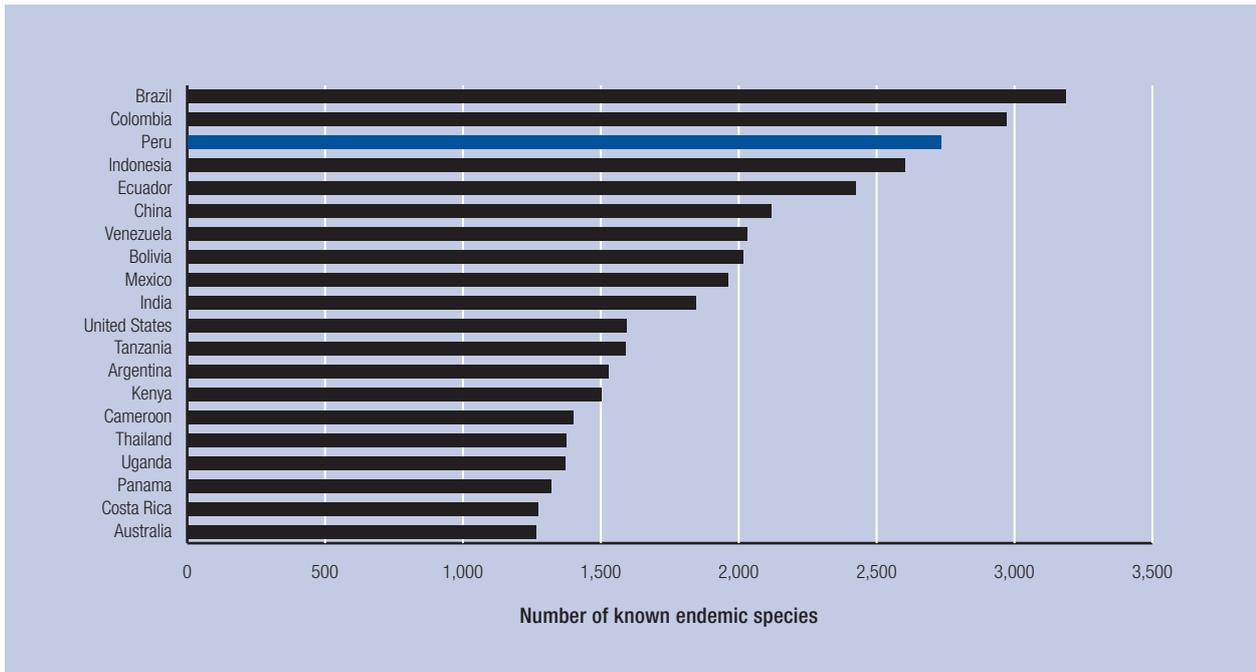
The *affinity for T&T* pillar captures the extent to which a country welcomes foreign visitors and has an open attitude towards tourism. This dimension is measured by the population's attitude toward foreign travelers, the extent to which business executives recommend leisure travel in their countries to foreign counterparts, the quality of customer care provided by companies, and the degree of tourism openness. *Tourism openness* is defined as *the sum of tourism expenditures and receipts as a percent of GDP*, which gives insight into the importance of tourism for a country (tourism receipts) and into how much its residents travel abroad (tourism expenditures). A country's standard of living has a direct impact on tourism expenditures, as disposable income and purchasing power have an important bearing on the ability of households to travel.

Peru ranks 82nd on this pillar, at the same level as Brazil and ahead of most regional peers. However, tourism receipts account for just 1.3 percent of GDP and, due to a low average income level, tourism expenditures are also below 1 percent of GDP, leading to a rank on the tourism openness indicator of 114th. Although this result appears somewhat low, Peru is doing better than Chile (129th), Colombia (130th), Brazil (133rd), and Mexico (121st). Hence, it should be interpreted as partially positive in the regional context, where, for a variety of reasons, international travel is still limited. These results suggest that Peru has the opportunity to adapt its tourist mix strategy; it could either aim at maximizing the number of arrivals by attracting more low-budget tourists or look towards a more balanced growth of higher-profile tourists but somewhat lower arrivals growth. Often, aiming at a mixed strategy has benefits in terms of environmental sustainability, yet requires developing infrastructure and a value proposition that could attract more high-end tourists.

In Peru, as in the majority of the countries assessed, the attitude of the population towards visitors is very positive. Peru's score on this dimension is 6.0 out of 7, while the average score across the 140 economies in the TTCL is 6.1 out of 7. Thus, the skewed nature of this variable (with most countries assessed as quite open to foreign travelers) leads to Peru's being ranked 96th, while Colombia, with 6.1, is only 88th and Brazil, the highest in Latin America, is 43rd with a score of 6.4.

Peru is considered a good location for extending business trips, ranking 48th with a score of 5.6 out of 7. Companies generally take good care of their customers, placing the country 45th in this dimension.

Figure 6: Total known species



Source: IUCN (International Union for Conservation of Nature), <http://www.iucn.org/>.

Peru's population emerges as mostly open and welcoming, which is driven primarily by cultural and social factors. The government has little control over these intangible and emotional elements of hospitality, yet communication campaigns and the educational system could maintain and possibly further improve the population's attitude towards tourists. Improving security in the country could provide a more pleasant traveling experience, resulting in more positive feedback from tourists.

### PILLAR 13: NATURAL RESOURCES

A country's natural resources are one of the primary attractions for tourists. In the TTCI, they are measured by the number of World Heritage natural sites present in a country, the total known species of animals, the extent to which the environment is pristine, and the extent of protected areas.

This is one of Peru's main strengths, giving it a ranking of 12th worldwide. Many countries in Latin America are endowed with a very rich natural environment, yet only Brazil (1st) and Mexico (8th) rank higher than Peru on this dimension. Peru's spectacular and diverse landscape, ranging from mountains to tropical forests to shorelines, provides significant incentives to visit the country. Peru is home to over 2,700 animal species (3rd worldwide, behind Brazil and Colombia; see Figure 6), and hosts four UNESCO natural World Heritage sites (10th). Several national and regional parks contribute to protecting a significant part of the country.

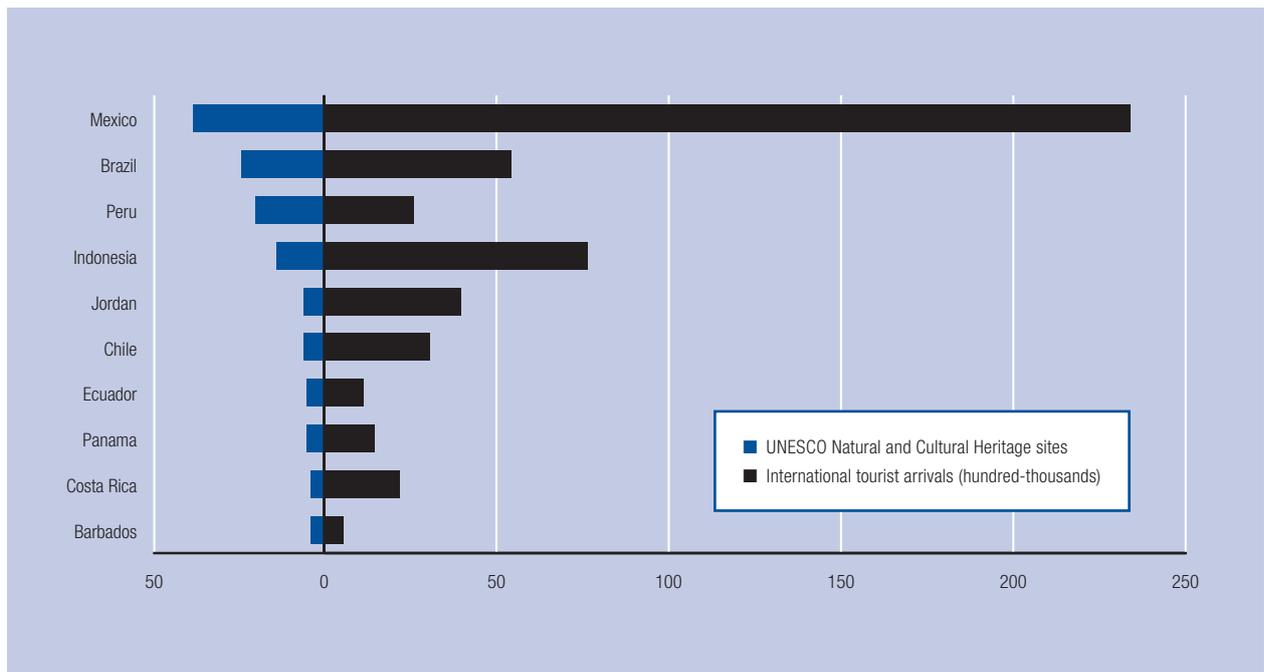
According to the Comisión de Promoción del Perú para la Exportación y el Turismo (PromPerú), visiting the natural areas and having a trekking experience are the second- and third-most mentioned reasons given by international travelers for visiting Peru, just behind seeing Cusco and Machu Pichu.<sup>36</sup> Consequently, natural resources tourism may have greater potential for further development than the country's top attractions, which are already mature destinations (see Box 5, below).

However, to ensure widespread and lasting development, the environment needs to be protected outside the national parks. Business executives observe that the quality of the natural environment is being damaged, as Peru receives a score of 3.4 out of 7 (ranking 123rd). It is on a constant downward trend since 2009, when it ranked 76th. While protecting the environment is an increasingly relevant issue for most countries worldwide, Peru should be particularly concerned with sustainable development, given its endowment of natural resources.

### PILLAR 14: CULTURAL RESOURCES

Together with natural resources, cultural resources are key for attracting tourists. In the TTCI, cultural resources include tourist attractions such as archaeological sites and museums, measured in this pillar by the number of UNESCO cultural World Heritage sites. They also include other drivers of visitor attraction, such as the number of international fairs and exhibitions taking place in the country (which attract both leisure and business travelers); entertainment facilities, as proxied by sports stadium capacity; and development of the entertainment,

Figure 7: Tourist arrivals and UNESCO listings



Sources: UNWTO 2013 and UNESCO.

cultural, and art industry, as measured by the country's share of worldwide exports of paintings, books, music recordings, movies, and similar goods.

Peru's performance on this pillar is mixed. It ranks 43rd overall, which might be surprising, given the presence of some of the most visited archaeological sites in the world, such as the sanctuary of Machu Pichu, the city of Cusco, and the archaeological zone of Chan Chan. In fact, Peru ranks high (18th) in the number of the UNESCO World Heritage cultural sites and intangible heritage, with nine registered sites and seven intangible heritage manifestations. Achieving the inscription of a site on UNESCO's World Heritage List is very much a marketing operation which, at the same time, contributes to its conservation. Frequently, once a site appears on the List, the number of visitors increases significantly (see Figure 7).

Peru has done a good job in promoting and conserving its cultural heritage, which has paid back with a growing number of visitors to its world-famous sites. However, it has perhaps become a victim of its own success, focusing only on few hot spots rather than achieving greater development breadth. The strategy of focusing on the development of a few centers might have been driven by a pragmatic approach to allocating and prioritizing resources, yet it may now be time to expand other segments of tourism, such as the rising culinary tourism trend, motivated by the delicious dishes that make Peru one of the main gastronomy centers in Latin America.

In addition, Peru should possibly look into expanding international fairs and the meetings,

incentives, conferencing, exhibitions (MICE) market to attract more business travelers. With an average of over 56 events per year (42nd), the number of international fairs and exhibitions taking place in Peru is still below that of Brazil (8th), Colombia (34th), and Chile (36th).

Similarly, Peru (61st) is positioned in the lower half of Latin America for its share in export of creative industry products. Peru's share of creative industry exports is low (less than 1 percent) and has also diminished as a result of the increasing share of other industries. This is an area where the government could look into applying different policy levers to regain momentum.

Expanding the availability of entertainment facilities such as sports stadiums could likewise generate a more vibrant environment for international tourists, as well as for local tourism. Such a move could possibly place Peru in a position to bid for international sporting events, which would improve the country's brand and international recognition. Currently, Peru is ranked 68th for its stadium capacity, slowly improving over the past five years.

## CONCLUSIONS

The Travel & Tourism industry is a strategic sector for Peru's development, as envisioned in its Strategic National Tourism Plan (*El Plan Estratégico Nacional de Turismo del Perú—PENTUR 2008–2018*). The country is endowed with unique cultural and natural resources which, with the exception of the Cusco and Machu Pichu hot spots, are not yet fully leveraged, resulting in considerable potential to develop the industry. In addition to providing employment and income, the T&T sector

## Box 5: UNESCO World Heritage Sites

With 16 cultural World Heritage sites, Peru is one of the top 20 countries worldwide, which indicates the richness its cultural resources, as well as the attention that the government pays to tourism, applying to UNESCO to list its cultural sites and cultural expressions.

The sites are enumerated here, in the order in which they were added to the UNESCO World Heritage List:

- **City of Cusco (1983):** Situated in the Peruvian Andes, Cusco developed under the Inca ruler Pachacutec into a complex urban center with distinct religious and administrative functions.
- **Historic Sanctuary of Machu Picchu (1983):** Machu Picchu stands 2,430 m above sea level, in the middle of a tropical mountain forest, an extraordinarily beautiful setting. It was probably the most amazing urban creation of the Inca Empire at its height.
- **Chavín (Archaeological Site) (1985):** The archaeological site of Chavín gave its name to the culture that developed between 1500 and 300 B.C. in this high valley of the Peruvian Andes. This former place of worship is one of the earliest and best-known pre-Columbian sites.
- **Chan Chan Archaeological Zone (1986):** The Chimú Kingdom, with Chan Chan as its capital, reached its apogee in the 15th century, not long before falling to the Incas.
- **Historic Centre of Lima (1988):** The capital and most important city of the Spanish dominions in South America. Many of its buildings, such as the Convent of San Francisco (the largest of its type in this part of the world), are the result of collaboration between local craftspeople and others from the Old World.
- **Río Abiseo National Park (1990):** Research undertaken since 1985 has already uncovered 36 previously unknown archaeological sites at altitudes between 2,500 and 4,000 m, which give a good picture of pre-Inca society.
- **Lines and Geoglyphs of Nasca and Pampas de Jumana (1994):** These lines, which were scratched on the surface of the ground between 500 B.C. and 500 A.D., are among archaeology's greatest enigmas because of their quantity, nature, size, and continuity.
- **Historical Centre of the City of Arequipa (2000):** Built in volcanic sillar rock, it represents an integration

of European and native building techniques and characteristics, expressed in the admirable work of colonial masters and Criollo and Indian masons.

- **Sacred City of Caral-Supe (2009):** The 5000-year-old, 626-hectare archaeological site of the Sacred City of Caral-Supe dates back to the Late Archaic Period of the Central Andes, and is the oldest centre of civilization in the Americas. Exceptionally well-preserved, the site is impressive in terms of its design and the complexity of its architecture, especially its monumental stone and earthen platform mounts and sunken circular courts.
- In addition, there are a number of Peruvian cultural expressions that are regarded as **oral and intangible cultural heritage** by UNESCO, namely: Eshuva Harákmbut sung prayers of Peru's Huachipaire people; Pilgrimage to the sanctuary of the Lord of Qoyllurit'i; Huaconada, ritual dance of Mito; Scissors dance; Taquile and its textile art; Oral heritage and cultural manifestations of the Zápara people; and Aymara communities.

However, of these rich resources, only Machu Pichu and Cusco are routinely visited by international travelers. A study conducted by the government finds that 71 percent of tourists travel to Peru to visit Machu Pichu; the other resources are not visited at a rate comparable to the most famous sites.<sup>1</sup> According to this research, the most visited department is Lima, which includes a high share of business travelers, followed by Cusco, with 47 percent of international tourists visiting the department. The next is Puno (Lake Titicaca), with 29 percent, while the department of Ica, home of the Nasca lines, is visited by only 18 percent of tourists. Typically, a tourist flies into Lima, spends some time there, flies to Cusco and Machu Pichu, and then leaves.

Additionally, Cusco and Machu Pichu are approaching the limit beyond which further tourism development might harm their conservation. As a result, the government has set a limit of 2,500 visitors per day to the site of Machu Pichu, and only those who have purchased their tickets in advance can climb up to the site. The other sites, which also have a remarkable cultural importance, could attract more people if only better advertised, better priced, and better connected to one another to make it easy for travelers to move from one site to the next.

### Note

<sup>1</sup> PromPerú 2010.

could also contribute indirectly to the country's human and economic development by, for example, providing incentives to build infrastructure that is much needed to achieve higher overall competitiveness and to improve the well-being of the country's citizens.

The Peruvian economy is growing at a fast pace, and the T&T industry is already an important contributor

to exports. Ongoing development of the T&T sector will further support the progress that the country has made over the past decade. The government has already undertaken many efforts to improve the T&T competitiveness of Peru. This study attempts to measure the success of these efforts through the lens of the TTCl, which assesses the factors that make the T&T

sector competitive. The analysis in this *Report* has many similarities to the objectives indicated by the National Plan.

As Peru is still at an initial stage of development, it needs to reinforce almost all the dimensions of the TTCI. Nevertheless, six priority areas can be identified:

- **Safety and security** and **ground infrastructure** are the two main priorities, where the government should indeed concentrate its efforts. The alarming and growing level of crime discourages tourists from visiting the country and poses additional operating costs on businesses, while inadequate infrastructure is a significant obstacle not only to the development of the T&T sector but to the country's competitiveness in general.
- Linked to the issue of underdeveloped infrastructure, the TTCI finds that increased **penetration of Internet**, especially at broadband speed, is needed to enable the development of business locally and especially to attract tourism, as tourists globally are making choices and selections on the Internet, and tourism is turning into eTourism. An enhanced ICT infrastructure will allow Peru to capture increased business opportunities in the international market.
- Poor **sanitation facilities** also represent an inconvenience for tourists while slowing down the achievement of higher standards of overall prosperity in the country.
- **Price competitiveness** is another area where a concerted effort of both public and private actors is needed to ensure more rapid development of the tourism industry. Specifically, Peru would benefit from lower air ticket taxes, airport charges, and hotel prices. A number of studies in the United Kingdom have demonstrated how reduction of ticket taxes can lead to increased GDP contribution and job creation. Additionally, Peru would benefit by offering a better value proposition and a differentiated market segmentation mix, in order to capture tourists with different budget profiles without depleting the country's natural resources.
- Finally, **sustainability**, despite the presence of several national parks and protected areas, represents an area of relative weakness. Protection of natural resources is of paramount importance for a country blessed with extraordinary natural wealth, as Peru is. This rich natural capital has helped to make tourism an important source of income for Peru. The government needs to balance the achievement of sustainable development with the need to grow industrial areas able to provide economic growth. Despite the population's awareness and the authorities' efforts, the evidence shows that the natural environment is being degraded and that habitat destruction is reducing

biodiversity in some areas. Increasing protected areas, enforcing existing environmental regulations more strictly, and ensuring the responsible development of the resource industry in close collaboration with the tourism industry could help mitigate the possibly negative effects on increased growth of industrial sectors.

Additionally, Peru should continue to rely on its main strengths, its cultural and natural resources, sustainably expanding more sites outside the Cusco hot spot and fostering new segments, such as culinary tourism, adventure tourism, and ecotourism. Also, Peru should continue its wise prioritization of T&T and its open policy, paying attention to maintaining its competitive advantage in these areas and put additional emphasis on attracting tourists from new markets.

It is clear that the Peruvian government considers the T&T industry a national priority sector, as demonstrated not only by official statements and marketing campaigns, but also by a certain degree of openness towards tourism: policy rules and regulations do not discourage foreign investments or visitors' access to the country. If priority is given to addressing the main hurdles to development identified, the country could fulfil the potential of the T&T sector, boost national competitiveness, and enjoy substantial socioeconomic benefits.

## NOTES

- 1 WTTC 2012.
- 2 International Trade Centre, "Tourism," <http://www.intracen.org/exporters/tourism/>.
- 3 WTTC 2012. The first figure refers to the direct contribution of T&T, and the second to the total (direct and indirect) contribution.
- 4 UNWTO 2013.
- 5 Author's calculation, compound annual growth rate (CAGR), based on UNWTO 2012a and UNWTO 2011.
- 6 According to WTTC, direct contribution includes resident and international expenditure for transportation, accommodation, retail sales, entertainment, and attractions, in the course of either leisure trips or business travel. Indirect contribution also includes T&T investment spending, government spending, and the impact of purchases from suppliers.
- 7 WTTC 2013c.
- 8 Author's calculation, CAGR over the period 2000–2011. Based on GDP purchasing power parity (PPP) figures from IMF 2012b.
- 9 Percent change between 2000 and 2010. Author's calculation based on UNWTO 2012a.
- 10 WTTC 2013b.
- 11 GDP per capita in the region in PPP terms was approximately 12,000 international dollars, almost 60 percent higher than in the year 2000. Author's calculation based on IMF 2012a.
- 12 According to the Ministerio de Trabajo y Promoción del Empleo, mining employs 1.3 percent of labor force, while services and retail jointly employ 54.1 percent and agriculture 25.8 percent. Tourism, which is a cross-sectoral industry, directly employs an estimated 2.3 percent of the labor force; including indirect contributions, it employs an estimated 7.4 percent of the labor force. WTTC 2013.
- 13 WTTC 2013.
- 14 WTTC 2013.

- 15 Author's calculation based on International Trade Centre, "Trade Performance HS: Exports of Peru 2009," Trade Competitiveness Map, [http://legacy.intracen.org/appli1/TradeCom/TP\\_EP\\_Cl.aspx?RP=604&YR=2009](http://legacy.intracen.org/appli1/TradeCom/TP_EP_Cl.aspx?RP=604&YR=2009) and WTTC 2013a.
- 16 Observatorio Turístico del Perú, "Los quince primeros países generadores de visitas hacia el Perú," <http://www.observatorioturisticodelperu.com/mapas/doce.pdf>.
- 17 For example, T&T expenditure over the past ten years has increased by 75 percent in Ecuador, has almost doubled in Colombia, and has increased fivefold in Brazil.
- 18 Based on international tourism expenditure, UNWTO 2013.
- 19 Based on World Bank's income groups. See <http://data.worldbank.org/about/country-classifications/country-and-lending-groups>.
- 20 World Trade Organization, Air Service Agreement Projector, <https://www.wto.org/asap/index.html>.
- 21 World Trade Organization, Air Service Agreement Projector.
- 22 GDP and population figures are from the World Bank's World Development Indicators, <http://data.worldbank.org/data-catalog/world-development-indicators>. Trade volume figures are from the World Trade Organization's statistics database, <http://stat.wto.org/Home/WSDBHome.aspx?Language=E>.
- 23 The score on this pillar was 4.3 in 2009 and 3.9 in 2011. It is 3.8 in the 2013 edition of the TTCI.
- 24 OSAC (Overseas Security Advisory Council), United States Department of State, "Peru 2012 Crime and Safety Report," <https://www.osac.gov/Pages/ContentReportDetails.aspx?cid=12225>.
- 25 United Nations Office of Drugs and Crime (UNODC), "UNODC Homicide Statistics," <http://www.unodc.org/unodc/en/data-and-analysis/homicide.html>.
- 26 Author interview with Luis Tenorio, Executive Director of our Partner Institute Centro de Desarrollo Industrial, Sociedad Nacional de Industrias, Lima.
- 27 Ministerio de Comercio Exterior y Turismo, "Incoming tourists 2004-2012 (by country of residence)," <http://www.mincetur.gob.pe/newweb/Default.aspx?tabid=3459>.
- 28 World Bank 2012.
- 29 World Bank 2006.
- 28 World Economic Forum 2012b.
- 31 The hotel price index is calculated based on first-class branded hotels. The inference is made assuming that a similar comparison can be applied to lower-class hotels.
- 32 Ministerio de Trabajo y Promoción del Empleo, "Law on Hiring Foreign Workers (Legislative Decree 689)," [http://www.mintra.gob.pe/migrante/pdf/DECRETO\\_LEGISLATIVO\\_689\\_english.pdf](http://www.mintra.gob.pe/migrante/pdf/DECRETO_LEGISLATIVO_689_english.pdf).
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- 35 The IMF reports an unemployment rate of 7.7 percent in 2011 and forecasts it will remain at 7.5 percent for the next few years. IMF 2012a.
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## Appendix A: Composition of the Travel & Tourism Competitiveness Index

This appendix provides details about the construction of the Travel & Tourism Competitiveness Index (TTCI).

The TTCI is composed of three subindexes: the T&T regulatory framework subindex; the T&T business environment and infrastructure subindex; and the T&T human, cultural, and natural resources subindex. These subindexes are, in turn, composed of the 14 pillars of T&T competitiveness shown below: policy rules and regulations, environmental sustainability, safety and security, health and hygiene, prioritization of Travel & Tourism, air transport infrastructure, ground transport infrastructure, tourism infrastructure, ICT infrastructure, price competitiveness in the T&T industry, human resources, affinity for Travel & Tourism, natural resources, and cultural resources.

These pillars are calculated on the basis of data derived from the Executive Opinion Survey (Survey) and quantitative data from other sources.

The Survey data comprise the responses to the World Economic Forum's Executive Opinion Survey and range from 1 to 7; the hard data were collected from various sources, which are described in the Technical Notes and Sources section at the end of the *Report*.

The hard data indicators used in the TTCI are normalized to a 1-to-7 scale in order to align them with the Executive Opinion Survey's results.<sup>1</sup>

Each of the pillars has been calculated as an unweighted average of the individual component variables.

The subindexes are then calculated as unweighted averages of the included pillars. In the case of the human resources pillar, which is itself composed of two subpillars (education and training and availability of qualified labor), the overall pillar is the unweighted average of the two subpillars.

The overall TTCI is then the unweighted average of the three subindexes. The variables of each pillar and subpillar are described below.

Variables that are not derived from the Survey are identified by an asterisk on the following pages.

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### SUBINDEX A: T&T REGULATORY FRAMEWORK

#### Pillar 1: Policy rules and regulations

- 1.01 Prevalence of foreign ownership
- 1.02 Property rights
- 1.03 Business impact of rules on FDI
- 1.04 Visa requirements\*
- 1.05 Openness of bilateral Air Service Agreements\*
- 1.06 Transparency of government policymaking
- 1.07 Time required to start a business\*
- 1.08 Cost to start a business\*
- 1.09 GATS commitments restrictiveness index of T&T services\*

#### Pillar 2: Environmental sustainability

- 2.01 Stringency of environmental regulation
- 2.02 Enforcement of environmental regulation
- 2.03 Sustainability of T&T industry development
- 2.04 Carbon dioxide emissions\*
- 2.05 Particulate matter concentration\*
- 2.06 Threatened species\*
- 2.07 Environmental treaty ratification\*

#### Pillar 3: Safety and security

- 3.01 Business costs of terrorism
- 3.02 Reliability of police services
- 3.03 Business costs of crime and violence
- 3.04 Road traffic accidents\*

#### Pillar 4: Health and hygiene

- 4.01 Physician density\*
- 4.02 Access to improved sanitation\*
- 4.03 Access to improved drinking water\*
- 4.04 Hospital beds\*

#### Pillar 5: Prioritization of Travel & Tourism

- 5.01 Government prioritization of the T&T industry
- 5.02 T&T government expenditure\*
- 5.03 Effectiveness of marketing and branding to attract tourists
- 5.04 Comprehensiveness of annual T&T data\*<sup>2</sup>
- 5.05 Timeliness of providing monthly/quarterly T&T data\*<sup>2</sup>

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### SUBINDEX B: T&T BUSINESS ENVIRONMENT AND INFRASTRUCTURE

#### Pillar 6: Air transport infrastructure

- 6.01 Quality of air transport infrastructure
- 6.02 Available seat kilometers, domestic\*<sup>3</sup>
- 6.03 Available seat kilometers, international\*<sup>3</sup>
- 6.04 Departures per 1,000 population\*
- 6.05 Airport density\*
- 6.06 Number of operating airlines\*
- 6.07 International air transport network\*

**Pillar 7: Ground transport infrastructure**

- 7.01 Quality of roads
- 7.02 Quality of railroad infrastructure
- 7.03 Quality of port infrastructure
- 7.04 Quality of domestic transport network
- 7.05 Road density\*

**Pillar 8: Tourism infrastructure**

- 8.01 Hotel rooms\*
- 8.02 Presence of major car rental companies\*
- 8.03 ATMs accepting Visa cards\*

**Pillar 9: ICT infrastructure**

- 9.01 ICT use for business-to-business transactions<sup>2</sup>
- 9.02 ICT use for business-to-consumers transactions<sup>2</sup>
- 9.03 Individuals using the Internet\*
- 9.04 Telephone lines\*
- 9.05 Broadband Internet subscribers\*
- 9.06 Mobile telephone subscriptions\*
- 9.07 Mobile broadband subscriptions\*

**Pillar 10: Price competitiveness in the T&T industry**

- 10.01 Ticket taxes and airport charges\*
- 10.02 Purchasing power parity\*
- 10.03 Extent and effect of taxation
- 10.04 Fuel price levels\*
- 10.05 Hotel price index\*

**SUBINDEX C: T&T HUMAN, CULTURAL, AND NATURAL RESOURCES****Pillar 11: Human resources***Education and training*

- 11.01 Primary education enrollment\*
- 11.02 Secondary education enrollment\*
- 11.03 Quality of the educational system
- 11.04 Local availability of specialized research and training services
- 11.05 Extent of staff training

*Availability of qualified labor*

- 11.06 Hiring and firing practices
- 11.07 Ease of hiring foreign labor
- 11.08 HIV prevalence\*<sup>4</sup>
- 11.09 Business impact of HIV/AIDS<sup>4</sup>
- 11.10 Life expectancy\*

**Pillar 12: Affinity for Travel & Tourism**

- 12.01 Tourism openness\*
- 12.02 Attitude of population toward foreign visitors
- 12.03 Extension of business trips recommended
- 12.04 Degree of customer orientation

**Pillar 13: Natural resources**

- 13.01 Number of World Heritage natural sites\*
- 13.02 Quality of the natural environment
- 13.03 Total known species\*
- 13.04 Terrestrial biome protection\*<sup>2</sup>
- 13.05 Marine protected areas\*<sup>2</sup>

**Pillar 14: Cultural resources**

- 14.01 Number of World Heritage cultural sites\*
- 14.02 Sports stadiums\*
- 14.03 Number of international fairs and exhibitions\*
- 14.04 Creative industries exports\*

**NOTES**

- 1 The standard formula for converting each hard data variable to the 1-to-7 scale is

$$6 \times \left( \frac{\text{country score} - \text{sample minimum}}{\text{sample maximum} - \text{sample minimum}} \right) + 1$$

The *sample minimum* and *sample maximum* are the lowest and highest scores of the overall sample, respectively. For those hard data variables for which a higher value indicates a worse outcome (e.g., road traffic accidents, fuel price levels), we rely on a normalization formula that, in addition to converting the series to a 1-to-7 scale, reverses it, so that 1 and 7 still correspond to the worst and best, respectively:

$$-6 \times \left( \frac{\text{country score} - \text{sample minimum}}{\text{sample maximum} - \text{sample minimum}} \right) + 7$$

In some instances, adjustments were made to account for extreme outliers in the data.

- 2 These variables are combined applying a simple average aggregation to form one single variable. Consequently, they are implicitly weighted by a 0.5 factor.
- 3 Variables 6.02 *Available seat kilometers, domestic* and 6.03 *Available seat kilometers, international* are summed to form one single variable.
- 4 The impact of HIV/AIDS on T&T competitiveness depends not only on its respective incidence rate, but also on how costly it is for business. Therefore, in order to estimate the impact of HIV/AIDS, we combine its incidence rate with the Survey question on its perceived cost to businesses. To combine these data we first take the ratio of each country's incidence rate relative to the highest incidence rate in the whole sample. The inverse of this ratio is then multiplied by each country's score on the related Survey question. This product is then normalized to a 1-to-7 scale.

Note that countries with zero reported incidences receive a 7, regardless of their scores on the related Survey question.

## Appendix B: Technical Notes and Sources

This appendix provides full descriptions and sources of all the indicators used for the calculation of the Travel & Tourism Competitiveness Index 2013 (TTCI).

The number next to the variable corresponds to the number of the data table that shows the ranks and scores for all countries/economies on this particular indicator.

The data used in this *Report* include the data derived from the Executive Opinion Survey as well as “hard” data from external sources. The latter represent the best available estimates from various national authorities, international agencies, and private sources at the time the *Report* was prepared.

Throughout the statistical tables in this publication, “n/a” denotes that the value is not available, or that available data are unreasonably outdated or do not come from a reliable source.

### PILLAR 1: POLICY RULES AND REGULATIONS

#### 1.01 Prevalence of foreign ownership

How prevalent is foreign ownership of companies in your country? [1 = very rare; 7 = highly prevalent] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

#### 1.02 Property rights

How would you rate the protection of property rights, including financial assets, in your country? [1 = very weak; 7 = very strong] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

#### 1.03 Business impact of rules on FDI

To what extent do rules governing foreign direct investment (FDI) encourage or discourage it? [1 = strongly discourage FDI; 7 = strongly encourage FDI] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

#### 1.04 Visa requirements

Number of countries whose citizens are exempt from obtaining a visa [= 1], able to obtain one upon arrival [= 0.70], or obtain an electronic visa [= 0.50] out of all UN countries | 2012

This variable is based on visitor visa requirements of all UN countries. The score refers to the percentage of UN countries whose citizens require a visa to enter the country. In compiling the data, each country that requires no visa at all receives a “1,” each country for which it is possible to obtain a visa upon arrival receives a “0.70,” and each country for which it is possible to obtain an electronic visa (e-visa) receives a “0.50.” Those countries for which a visa is required prior to departure would receive a “0.” We first count the number of countries falling in each category, and then we multiply each of these three figures by the relative weight. Finally, the sum across these weighted scores produces the final score shown in the table.

Source: World Tourism Organization

#### 1.05 Openness of bilateral Air Service Agreements

Index measuring the average openness of Air Service Agreements [0 = most restricted; 38 = most liberal] | 2011

This index measures the weighted average openness of all bilateral Air Service Agreements (ASAs) concluded by International Civil Aviation Organization (ICAO) signatories as registered in ICAO's *World's Air Services Agreements* (WASA) database (2010 update). The weights are the bilateral scheduled passenger traffic taking place under each ASA. Regulatory data come from ICAO's WASA database and traffic data were obtained from IATA.

Sources: World Trade Organization, based on ICAO and IATA data

#### 1.06 Transparency of government policymaking

How easy is it for businesses in your country to obtain information about changes in government policies and regulations affecting their activities? [1 = impossible; 7 = extremely easy] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

#### 1.07 Time required to start a business

Number of days required to start a business | 2012

This variable measures the median duration that incorporation lawyers indicate is necessary to complete a procedure with minimum follow-up with government agencies and no extra payments. For further details, visit <http://www.doingbusiness.org/methodologysurveys/>.

Source: World Bank/International Finance Corporation, *Doing Business 2013*

#### 1.08 Cost to start a business

Cost to start a business as a percentage of the economy's income (GNI) per capita | 2012

This variable measures all official fees and fees for legal or professional services if such services are required by law. For further details, visit <http://www.doingbusiness.org/methodologysurveys/>.

Source: World Bank/International Finance Corporation, *Doing Business 2013*

**1.09 GATS commitments restrictiveness index (Tourism)**

**Index [0 = most restricted; 100 = most liberal] | 2006–2009**

This index measures the extent of GATS commitments for tourism services as classified by the GATS and in the four modes of the GATS. Each entry in the country's schedule is assigned scores based on its relative restrictiveness, using a criterion set out by Bernard Hoekman's methodology. The results range from 0 (unbound or no commitments) to 100 (completely liberalized), with an intermediate value of 50 for partial commitments. A simple average of the subsectoral scores were used to generate aggregate sectoral scores (for the 12 main services sectors as classified by the GATS), the four modes scores, and market access and national treatment scores.

Source: The World Bank Institute

**PILLAR 2: ENVIRONMENTAL SUSTAINABILITY****2.01 Stringency of environmental regulation**

**How would you assess the stringency of your country's environmental regulations? [1 = very lax; 7 = among the world's most stringent] | 2011–2012 weighted average**

Source: World Economic Forum, Executive Opinion Survey

**2.02 Enforcement of environmental regulation**

**How would you assess the enforcement of environmental regulations in your country? [1 = very lax; 7 = among the world's most rigorous] | 2011–2012 weighted average**

Source: World Economic Forum, Executive Opinion Survey

**2.03 Sustainability of T&T industry development**

**How would you assess the effectiveness of your government's efforts to ensure that the T&T sector is being developed in a sustainable way? [1 = very ineffective—development of the sector does not take into account issues related to environmental protection and sustainable development; 7 = very effective—issues related to environmental protection and sustainable development are at the core of the government's strategy] | 2011–2012 weighted average**

Source: World Economic Forum, Executive Opinion Survey

**2.04 Carbon dioxide emissions**

**Emissions, metric tons per capita | 2008**

According to the World Bank, *carbon dioxide emissions* are those emanating from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during the consumption of solid, liquid, and gas fuels and gas flaring. In the World Development Indicators, this indicator is labeled "CO<sub>2</sub> emissions (metric tons per capita)."

Source: The World Bank, *World Development Indicators* (September 2012 edition)

**2.05 Particulate matter concentration (PM<sub>10</sub>)**

**Urban population-weighted PM<sub>10</sub> micrograms per cubic meter | 2009**

*Particulate matter concentrations* refers to fine, suspended particulates less than 10 microns in diameter (PM<sub>10</sub>) that are capable of penetrating deep into the respiratory tract and causing significant health damage. Data for countries and aggregates for regions and income groups are urban population-weighted PM<sub>10</sub> levels in residential areas of cities with more than 100,000 residents. The estimates represent the average annual exposure level of the average urban resident to outdoor particulate matter. The state of a country's technology and pollution control is an important determinant of particulate matter concentrations.

Source: The World Bank, *World Development Indicators* (September 2012 edition)

**2.06 Threatened species**

**Threatened species as a percentage of total species (mammals, birds, amphibians) | 2012**

This variable measures the total number of Critically Endangered, Endangered, and Vulnerable species as a percentage of total known species for mammals, birds, and amphibians.

Source: The International Union for Conservation of Nature (IUCN), Red List of Threatened Species 2012

**2.07 Environmental treaty ratification**

**Total number of ratified environmental treaties | 2012**

This variable measures the total number of international treaties from a set of 25 for which a state is a participant. A state is acknowledged as a "participant" whenever its status for each treaty appears as "Ratified," "Accession," or "In Force." The treaties included are: the International Convention for the Regulation of Whaling, 1948 Washington; the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended in 1962 and 1969; 1954 London; the Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1971 Ramsar; the Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972 Paris; the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 London, Mexico City, Moscow, Washington; the Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973 Washington; the International Convention for the Prevention of Pollution from Ships (MARPOL) as modified by the Protocol of 1978, 1978 London; the Convention on the Conservation of Migratory Species of Wild Animals, 1979 Bonn; the United Nations Convention on the Law of the Sea, 1982 Montego Bay; the Convention on the Protection of the Ozone Layer, 1985 Vienna; the Protocol on Substances that Deplete the Ozone Layer, 1987 Montreal; the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989 Basel; the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 London; the United Nations Framework Convention on Climate Change, 1992 New York; the Convention on Biological Diversity, 1992 Rio de Janeiro; the International Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly Africa, 1994 Paris; the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, 1994 New York; the Agreement relating to the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 1995 New York; the Kyoto Protocol to the United Nations Framework Convention on the Climate Change, Kyoto 1997; the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, 1998 Rotterdam; the Cartagena Protocol of Biosafety to the Convention on Biological Diversity, 2000 Montreal; the Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000 London; the Stockholm Convention on Persistent Organic Pollutants, 2001 Stockholm; the International Treaty on Plant Genetic Resources for Food and Agriculture, 2001 Rome; the International Tropical Timber Agreement, 2006 Geneva.

Source: The International Union for Conservation of Nature (IUCN), Environmental Law Centre *ELIS Treaty Database*

**PILLAR 3: SAFETY AND SECURITY****3.01 Business costs of crime and violence**

**To what extent does the incidence of crime and violence impose costs on businesses in your country? [1 = to a great extent; 7 = not at all] | 2011–2012 weighted average**

Source: World Economic Forum, Executive Opinion Survey

**3.02 Reliability of police services**

To what extent can police services be relied upon to enforce law and order in your country? [1 = cannot be relied upon at all; 7 = can be completely relied upon] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**3.03 Road traffic accidents**

Estimated deaths due to road traffic accidents per 100,000 population | 2007

This indicator is estimated using fatal road traffic injury data.

Source: World Health Organization, *World Health Statistics 2012*

**3.04 Business costs of terrorism**

To what extent does the threat of terrorism impose costs on businesses in your country? [1 = to a great extent; 7 = not at all] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**PILLAR 4: HEALTH AND HYGIENE****4.01 Physician density**

Physician density per 1,000 population | 2009

This variable measures the number of physicians in the country per 1,000 population. The World Bank defines *physicians* as graduates of any faculty of medicine who are working in the country in any medical field (practice, teaching, research).

Source: World Health Organization, *World Health Statistics 2012*

**4.02 Access to improved sanitation**

Access to adequate sanitation as a percentage of total population | 2010

This variable refers to the percentage of the population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. To be effective, facilities must be correctly constructed and properly maintained.

Source: World Health Organization, *World Health Statistics 2012*

**4.03 Access to improved drinking water**

Access to safe drinking water as a percentage of total population | 2010

This indicator refers to the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. *Reasonable access* is defined as the availability of at least 20 liters a person a day from a source within one kilometer of the dwelling.

Source: World Health Organization, *World Health Statistics 2012*

**4.04 Hospital beds**

Hospital beds per 10,000 population | 2009

*Hospital beds* includes inpatient beds available in public, private, general, and specialized hospitals and rehabilitation centers. In most cases, beds for both acute and chronic care are included.

Source: The World Bank, *World Development Indicators* (September 2012 edition)

**PILLAR 5: PRIORITIZATION OF TRAVEL & TOURISM****5.01 Government prioritization of the T&T industry**

How much of a priority is the development of the T&T industry for the government of your country? [1 = not a priority at all; 7 = a top priority] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**5.02 T&T government expenditure**

T&T government expenditure as a percentage of total government budget | 2011

This measure includes expenditures (transfers or subsidies) made by government agencies to provide T&T services such as cultural (e.g., art museums), recreational (e.g., national parks), clearance (e.g., immigration/customs), and so on to visitors.

Source: World Travel & Tourism Council, Tourism Satellite Accounting Research 2012

**5.03 Effectiveness of marketing and branding to attract tourists**

How would you assess the effectiveness of your country's marketing and branding campaigns to attract tourists? [1 = very ineffective; 7 = very effective] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**5.04 Comprehensiveness of annual T&T data**

Number of data available [0 = no data; 120 = all selected indicators are available] | 2012

This indicator shows how many of the yearly data provided by national administrations, on 30 different concepts from the UNWTO Compendium of Tourism Statistics, are available. It covers the 2007 through 2010 period. The scores range from a minimum of 0 to a maximum of 120, where 120 can be obtained by a country providing data for all the 30 concepts in all of the four years taken into consideration.

Source: World Tourism Organization

**5.05 Timeliness of providing monthly/quarterly T&T data**

Number of latest data available [0 = no data; 18 = data reported for all the periods considered] | 2012

This variable shows the availability of two key T&T indicators (international tourist arrivals and tourism receipts) on a monthly or quarterly basis, covering the period from October 2011 to September 2012. The UNWTO has calculated the score of each country based on the data included in the October 2012 issue of the UNWTO World Tourism Barometer by adding the number of months for which data on the international tourist arrivals are available to the number of months for which data on international tourism receipts are available. Half weight has been applied to the lower of the two scores, so the scores range from a minimum of 0 to a maximum of 18 (the maximum number of period counts a country can get is 12 for one measure and 6 for the other).

Source: World Tourism Organization

**PILLAR 6: AIR TRANSPORT INFRASTRUCTURE****6.01 Quality of air transport infrastructure**

How would you assess air transport infrastructure in your country? [1 = extremely underdeveloped; 7 = extensive and efficient by international standards] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**6.02 Available seat kilometers, domestic**

Scheduled available domestic seat kilometers per week originating in country (in millions) | 2011

This variable measures an airline's passenger-carrying capacity; it is composed of the number of seats available on each domestic flight multiplied by the flight distance in kilometers. The resulting variable is an average of the total for all scheduled flights in a week during January 2011 (winter schedule) and July 2011 (summer schedule).

Source: International Air Transport Association, SRS Analyser

**6.03 Available seat kilometers, international**

Scheduled available international seat kilometers per week originating in country (in millions) | 2011

This variable measures an airline's passenger-carrying capacity; it is composed of the number of seats available on each international flight multiplied by the flight distance in kilometers. The resulting variable is an average of the total for all scheduled flights in a week during January 2011 (winter schedule) and July 2011 (summer schedule).

Source: International Air Transport Association, SRS Analyser

**6.04 Departures per 1,000 population**

Number of departures per 1,000 population | 2010

Aircraft departures are the number of domestic and international take-offs of air carriers registered in the country.

Source: Booz & Company, based on World Bank data

**6.05 Airport density**

Number of airports with at least one scheduled flight per million population | 2011

Source: International Air Transport Association, SRS Analyser

**6.06 Number of operating airlines**

Number of airlines with scheduled flights originating in country | January 2011 – July 2011 average

Number of airlines with scheduled flights originating in country.

Source: International Air Transport Association, SRS Analyser

**6.07 International air transport network**

To what extent does the air transport network in your country provide connections to the overseas markets offering the greatest potential to your country's businesses? [1 = not at all; 7 = extremely well] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**PILLAR 7: GROUND TRANSPORT INFRASTRUCTURE****7.01 Quality of roads**

How would you assess roads in your country? [1 = extremely underdeveloped; 7 = extensive and efficient by international standards] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**7.02 Quality of railroad infrastructure**

How would you assess the railroad system in your country? [1 = extremely underdeveloped; 7 = extensive and efficient by international standards] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**7.03 Quality of port infrastructure**

How would you assess port facilities in your country? \* For landlocked countries, how accessible are port facilities? [1 = extremely underdeveloped; 7 = well developed and efficient by international standards] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**7.04 Quality of ground transport network**

To what extent does your national ground transport network (buses, trains, trucks, taxis, etc.) offer efficient transportation within your country? [1 = not at all; 7 = extremely well] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**7.05 Road density**

Kilometers of road per 100 square kilometers of land | 2009

Source: The World Bank, *World Development Indicators* (September 2012 edition)

**PILLAR 8: TOURISM INFRASTRUCTURE****8.01 Hotel rooms**

Number of hotel rooms per 100 population | 2011

Source: World Tourism Organization

**8.02 Presence of major car rental companies**

Index of presence of major car rental companies [1 = no company is present; 7 = all the 7 considered companies are present] | 2012

This indicator measures the presence of seven major car rental companies: Avis, Budget, Europcar, Hertz, National Car Rental, Sixt, and Thrifty. For each country we count how many of these companies operate via an online research.

Sources: Individual rental car websites, online research

**8.03 ATMs accepting Visa cards**

Number of automated teller machines (ATMs) accepting Visa credit cards per million population | 2012

Source: Visa

**PILLAR 9: ICT INFRASTRUCTURE****9.01 ICT use for business-to-business transactions**

To what extent do businesses in your country use ICTs for communicating and carrying out transactions with other businesses? [1 = not at all; 7 = extensively] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**9.02 Internet use for business-to-consumer transactions**

To what extent do businesses in your country use the Internet for selling their goods and services to consumers? [1 = not at all; 7 = extensively] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

**9.03 Individual using internet**

Percentage of individuals using the Internet | 2011

*Internet users* refers to people using the Internet from any device (including mobile phones) in the last 12 months. Data are based on surveys generally carried out by national statistical offices or estimated based on the number of Internet subscriptions.

Source: International Telecommunication Union, *World Telecommunication Indicators 2012*, December update

**9.04 Fixed telephone lines**

Number of active fixed telephone lines per 100 population | 2011

A *fixed telephone line* is an active line connecting the subscriber's terminal equipment to the public switched telephone network (PSTN) and that has a dedicated port in the telephone exchange equipment. *Active lines* are those that have registered an activity in the past three months.

Source: International Telecommunication Union, *World Telecommunication Indicators 2012*, December update

**9.05 Broadband Internet subscribers****Fixed broadband Internet subscriptions per 100 population | 2011**

This refers to total fixed (wired) broadband Internet subscriptions (that is, subscriptions to high-speed access to the public Internet—a TCP/IP connection—at downstream speeds equal to or greater than 256 kb/s).

Source: International Telecommunication Union, *World Telecommunication Indicators 2012*, December update

**9.06 Mobile telephone subscriptions****Number of mobile telephone subscriptions per 100 population | 2011**

A *mobile telephone subscription* refers to a subscription to a public mobile telephone service that provides access to the public switched telephone network (PSTN) using cellular technology, including the number of pre-paid SIM cards active during the past three months. This includes both analog and digital cellular systems (IMT-2000, Third Generation, 3G) and 4G subscriptions, but excludes mobile broadband subscriptions via data cards or USB modems. Subscriptions to public mobile data services, private trunked mobile radio, telepoint or radio paging, and telemetry services are also excluded. It includes all mobile cellular subscriptions that offer voice communications.

Source: International Telecommunication Union, *World Telecommunication Indicators 2012*, December update

**9.07 Mobile broadband subscriptions****Mobile broadband subscriptions per 100 population | 2011**

*Mobile broadband subscriptions* refers to active SIM cards or, on CDMA networks, connections accessing the Internet at consistent broadband speeds of over 512 kb/s, including cellular technologies such as HSPA, EV-DO, and above. This includes connections being used in any type of device able to access mobile broadband networks, including smartphones, USB modems, mobile hotspots, and other mobile-broadband connected devices.

Source: International Telecommunication Union, *World Telecommunication Indicators 2012*, December update

**PILLAR 10: PRICE COMPETITIVENESS IN THE T&T INDUSTRY****10.01 Ticket taxes and airport charges****Index of relative cost of access (ticket taxes and airport charges) to international air transport services | [0 = highest cost; 100 = lowest cost] | 2012**

This index measures the relative cost of access to international air transport services based on the level of airport charges, passenger ticket taxes, and value-added taxation. It reflects the costs associated with a narrow-body and a wide-body passenger plane arrival and departure at the major international airports in each country. Charges include landing, terminal navigation, and passenger and security charges as listed in the IATA Airport and Air Navigation Charges manual. Ticket taxes applicable to international travel were applied as described in the IATA List of Ticket and Airport Taxes and Fees manual. Per-passenger charges were calculated by applying a 75 percent load factor to a typical seating configuration of each type of aircraft. Value-added taxes (VATs) were calculated based on an average ticket price for each country, applied to half of the departing passengers, because the VAT is normally charged only on itineraries originating in the country concerned. A higher score indicates a lower level of charges and taxes.

Source: International Air Transport Association, SRS Analyser

**10.02 Purchasing power parity****Ratio of purchasing power parity (PPP) conversion factor to official exchange rate | 2011**

The World Bank defines the *purchasing power parity (PPP) conversion factor* as the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as a US dollar would buy in the United States. *Official exchange rate* refers to the exchange rate determined by national authorities or to the rate determined in the legally sanctioned exchange market. It is calculated as an annual average based on monthly averages (local currency units relative to the US dollar). The variable shown is the PPP conversion factor to market exchange rate ratio as reported by the World Bank's *World Development Indicator* database.

Source: The World Bank, *World Development Indicators* (September 2012 edition)

**10.03 Extent and effect of taxation****What impact does the level of taxes in your country have on incentives to work or invest? [1 = significantly limits incentives to work or invest; 7 = has no impact on incentives to work or invest] | 2011–2012 weighted average**

Source: World Economic Forum, Executive Opinion Survey

**10.04 Fuel price levels****Retail diesel fuel prices, US cents per liter | 2010**

According to the World Bank, this variable refers to the pump prices of the most widely sold grade diesel fuel.

Source: The World Bank, *World Development Indicators* (September 2012 edition)

**10.05 Hotel price index****Average room rates calculated for first-class branded hotels for calendar year (in US dollars) | 2012**

This index measures the average price, in US dollars, of first-class hotel accommodation in each country. The index is calculated by using the average room rate achieved by first-class hotels in each country over a 12-month period from January through December 2011, to mitigate the impact of any seasonality fluctuations. Data may refer to the 2009 or the 2007 period where the 2011 update is not available.

Source: Deloitte–STR Global and Smith Travel Research Inc.

**PILLAR 11: HUMAN RESOURCES****11.01 Primary education enrollment****Net primary education enrollment rate | 2010**

The reported value corresponds to the ratio of children of official school age (as defined by the national education system) who are enrolled in school to the population of the corresponding official school age. Primary education (ISCED level 1) provides children with basic reading, writing, and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art, and music.

Sources: UNESCO Institute for Statistics; Organisation for Economic Co-operation and Development (OECD), *Education at a Glance 2011*

**11.02 Secondary education enrollment****Gross secondary education enrollment rate | 2010**

The reported value corresponds to the ratio of total secondary enrollment, regardless of age, to the population of the age group that officially corresponds to the secondary education level. Secondary education (ISCED levels 2 and 3) completes the provision of basic education that began at the primary level, and aims to lay the foundations for lifelong learning and human development by offering more subject- or skills-oriented instruction using more specialized teachers.

Source: UNESCO Institute for Statistics

### 11.03 Quality of the educational system

How well does the educational system in your country meet the needs of a competitive economy? [1 = not well at all; 7 = very well] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

### 11.04 Local availability of specialized research and training services

In your country, to what extent are high-quality, specialized training services available? [1 = not at all available; 7 = widely available] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

### 11.05 Extent of staff training

To what extent do companies in your country invest in training and employee development? [1 = hardly at all; 7 = to a great extent] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

### 11.06 Hiring and firing practices

How would you characterize the hiring and firing of workers in your country? [1 = impeded by regulations; 7 = flexibly determined by employers] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

### 11.07 Ease of hiring foreign labor

To what extent does labor regulation in your country limit the ability to hire foreign labor? [1 = very much limits hiring foreign labor; 7 = does not limit hiring foreign labor at all] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

### 11.08 HIV prevalence

HIV prevalence as a percentage of adults aged 15–49 years | 2009

HIV prevalence refers to the number of infections at a particular point in time, no matter when infection occurred.

Sources: The World Bank, *World Development Indicators* (April 2012 edition); UNAIDS, *Global Report on the Global AIDS Epidemic* (2008 edition)

### 11.09 Business impact of HIV/AIDS

How serious an impact do you consider HIV will have on your company in the next five years (e.g., death, disability, medical and funeral expenses, productivity and absenteeism, recruitment and training expenses, revenues)? [1 = a serious impact; 7 = no impact at all] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

### 11.10 Life expectancy

Life expectancy at birth in years | 2011

Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.

Source: The World Bank, *World Development Indicators* (September 2012 edition)

## PILLAR 12: AFFINITY FOR TRAVEL & TOURISM

### 12.01 Tourism openness

Tourism expenditure and receipts as a percentage of GDP | 2011

This variable is the ratio of the sum of international tourism expenditures and receipts to GDP. *International tourism expenditures* are expenditures of international outbound visitors in other countries, including payments to foreign carriers for international transport. *International tourism receipts* are expenditures of international inbound visitors in other countries, including payments to foreign carriers for international transport.

Sources: World Tourism Organization; International Monetary Fund, *World Economic Outlook*, 2012

### 12.02 Attitude of population toward foreign visitors

How welcome are foreign visitors in your country? [1 = very unwelcome; 7 = very welcome] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

### 12.03 Extension of business trips recommended

When senior executives visit your country for the first time for business purposes, how likely are you to recommend extending their trip for leisure purposes? [1 = very unlikely; 7 = very likely] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

### 12.04 Degree of customer orientation

How well do companies in your country treat customers? [1 = generally treat their customers badly; 7 = are highly responsive to customers and seek customer retention] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

## PILLAR 13: NATURAL RESOURCES

### 13.01 Number of World Heritage natural sites

Number of World Heritage natural sites in the country | 2012

The World Heritage natural sites are those properties that the World Heritage Committee considers as having outstanding universal value.

Source: UNESCO World Heritage List, available at <http://whc.unesco.org/en/list/>

### 13.02 Quality of the natural environment

How would you assess the quality of the natural environment in your country? [1 = extremely poor; 7 = among the world's most pristine] | 2011–2012 weighted average

Source: World Economic Forum, Executive Opinion Survey

### 13.03 Total known species

Total known species (mammals, birds, amphibians) in the country | 2012

This variable measures the total known species of mammals, birds, and amphibians.

Source: The International Union for Conservation of Nature (IUCN), Red List Threatened Species 2012

**13.04 Terrestrial biome protection**

This is a measure of the degree to which a country achieves the target of protecting 17 percent of each terrestrial biome within its borders. Therefore it is expressed as the average of the percentage of land protected by biome. It ranges between 0 and 17 percent. | 2010

This indicator is calculated by Columbia University's Center for International Earth Science Information Network (CIESIN) by overlaying the protected area mask on terrestrial biome data developed by the World Wildlife Fund (WWF)'s Terrestrial Eco-Regions of the World for each country. A *biome* is defined as a major regional or global biotic community, such as a grassland or desert, characterized chiefly by the dominant forms of plant life and the prevailing climate. Scores are capped at 17 percent per biome such that higher levels of protection of some biomes cannot be used to offset lower levels of protection of other biomes, hence the maximum level of protection a country can achieve is 17 percent. CIESIN uses time series of the World Database on Protected Areas (WDPA) developed by the United Nations Environment Programme (UNEP) World Conservation Monitoring Centre (WCMC) in 2011, which provides a spatial time series of protected area coverage from 1990 to 2010. The WCMC considers all nationally designated protected areas whose location and extent is known. Boundaries were defined by polygons where available; where they were not available, protected-area centroids were buffered to create a circle in accordance with the protected area size. The WCMC removed all overlaps between different protected areas by dissolving the boundaries to create a protected areas mask.

Source: Yale University-CIESIN, Environmental Performance Index 2012, based on UNEP World Conservation Monitoring Centre

**13.05 Marine protected areas**

Percentage of each country's exclusive economic zone (EEZ, 0–200 nautical miles) that is under protection by a marine protected area (MPA) | 2010

The January 2011 version of the World Database on Protected Areas was used by the UNEP World Conservation Monitoring Centre for a spatial time series analysis of protected area coverage from 1990 to 2010. WCMC considered all nationally designated protected areas whose location and extent is known. They used polygons where available, otherwise they used buffered points. WCMC removed all overlaps between different designations and categories, buffered points and polygons, and dissolved the boundaries so as to create a protected areas mask. The time series was generated based on the date of gazettement of the protected areas. Dated and undated protected areas were used; protected areas with unknown year of establishment were assumed to have been established before 1990. A logarithmic transformation is applied to the scores in order to spread the data distribution. Landlocked countries are excluded in the calculation of this indicator.

Source: Yale University-CIESIN, Environmental Performance Index 2012, based on IUCN and UNEP-WCMC The World Database on Protected Areas (WDPA)

**PILLAR 14: CULTURAL RESOURCES****14.01 Number of World Heritage cultural sites**

Number of World Heritage cultural sites and Oral & Intangible Heritage | 2012

The World Heritage cultural sites are those properties that the World Heritage Committee considers as having outstanding universal value. Intangible Cultural Heritage are those practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artifacts, and cultural spaces associated therewith—that communities, groups, and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment and their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity.

Source: UNESCO World Heritage List, available at <http://whc.unesco.org/en/list/> and <http://www.unesco.org/culture/ich/index.php?lg=en&pg=00011>

**14.02 Sports stadiums**

Sports stadium capacity per million population | 2011

This variable is calculated as the ratio of total seats for all major sports stadiums in the country to the total population (in millions).

Source: Booz & Company, based on Worldstadiums.com

**14.03 Number of international fairs and exhibitions**

Number of international fairs and exhibitions held in the country annually | 2009–11 average

This variable measures the average number of international fairs and exhibitions held annually in each country between 2009 and 2011. Data on international fairs and exhibitions were obtained from the International Congress and Convention Association (ICCA), which includes meetings organized by international associations attended by at least 50 participants that take place on a regular basis (one-time events are not included) and rotate between a minimum of three countries.

Source: International Congress and Convention Association

**14.04 Creative industries exports**

Exports of creative industries products as a share of world total in such exports. | 2011

This variable measures the share of the world's total exports of the following creative industries products: art crafts such as carpets, celebration articles, paperware, wickerware, yarn, other; films; architecture, fashion, glassware, jewelry; music; books, newspapers and other; antiques, paintings, photography, sculpture, and other. Data were obtained from the UNCTAD's Creative Industries database and HS 2002 codes were used.

Source: United Nations Conference on Trade and Development (UNCTAD), Creative industry database, *Creative Economy Report 2012*



# Tourism, Competitiveness, and an Inclusive Green Economy in Peru

KLAUS LENGEFELD, German International Cooperation Agency (GIZ)

With its abundant diversity of natural resources, species, landscapes, and cultures, Peru ranks in the top 20 in the Travel & Tourism Competitiveness Index (TTCI) for natural and cultural heritage. However, the conditions are not yet in place for achieving a fully sustainable tourism industry. The Peruvian government is as aware of the T&T industry's potential as it is of the limitations stifling it, and it has increased efforts to create a supportive environment for tourism. Nevertheless, it is difficult to justify public spending to support tourism development in a country where the public is more concerned with reducing poverty. There is no broad societal consensus about the key role tourism jobs and income can play in poverty reduction in a country endowed with such a variety of major tourist attractions.

Additionally, tourism not only must win the attention of government and attract investments, but also must compete with other sectors with respect to use of limited natural resources such as land, water, energy, nature, and forestry. While Peru is among the few countries with a positive net eco-footprint over its bio-capacity,<sup>1</sup> the practices of certain sectors, especially agriculture, mining, and logging, put high pressure on key natural resources (see Chapter 1) and, through their impact on the environment, also put some cultural resources at risk.

Balancing the eco-footprint of development projects with their positive contribution to the economy is the core concept of **Inclusive Green Economy**, which is, following the resolution of the Rio+20 Conference, becoming the global orientation for sustainable development (see Figure 1). Peru is taking up this concept, but must simultaneously grow its economy in order to satisfy the needs of the part of the population that is still poor, as well as of future generations. Tourism is considered a priority sector for Inclusive Green Growth in Peru, given its very positive job balance as compared with other industries at the worldwide level (see Figure 2).

Despite the positive economic impact of T&T in Peru, more traditional drivers of the economy—agriculture, mining, and logging—still get more attention. After a long and often difficult experience with agriculture and extractive industries, the country's public is aware of the costs and benefits associated with these sectors, but has less awareness of tourism's capacity to fit in

a sustainable development plan. Former governments often aggravated the misgivings of local communities about T&T development by handling major tourism investments opaquely, as in the case of Kuelap in the Andes and Playa Hermosa on the Northern Coast, where in 2002 the planned expropriation of 6,000 hectares of rural coastland to develop tourism infrastructure generated strong protests among farmers, and, through the media, created a negative image of the tourist industry at the local and international levels.

Currently, the general population, encouraged by local media, often reacts negatively to potential new hotel construction. This frequently discourages investors and ends in lost opportunities for development. More complete and transparent information about the costs and benefits of such projects would probably yield greater popular support. Public opinion would probably change if new investments were presented as generating new local jobs, new demand for local farmers and fishermen, higher incomes for landlords, and larger budgets for municipalities—as well as providing opportunities to improve basic infrastructure in the area, including roads, energy, water, and telecommunications.

One important reason that this scenario doesn't happen is the lack of baseline information about the real economic impact and the real eco-footprint of tourism. A gap exists between the available data, which are rather general, and the data that are needed about the local and regional effects of tourism, both positive and negative.

The findings presented in this article are based on pilot research that aims to fill this gap. The underlying question of this innovative approach is: If Peru wishes to create 10,000 new jobs or US\$1 million in contributions to the local economy through tourism development, how much land, water, and energy will this effort consume, and what other positive and negative social, environmental, and cultural impacts will it generate?

## METHODOLOGY

### Research Coverage and Design

The research covers Cusco and Madre de Dios, which respectively represent Peru's cultural and natural tourist attractions. Cusco, with more than 1.1 million international and national visitors in 2012, and with its

Figure 1: The bottom line for an Inclusive Green Economy is the balance of...

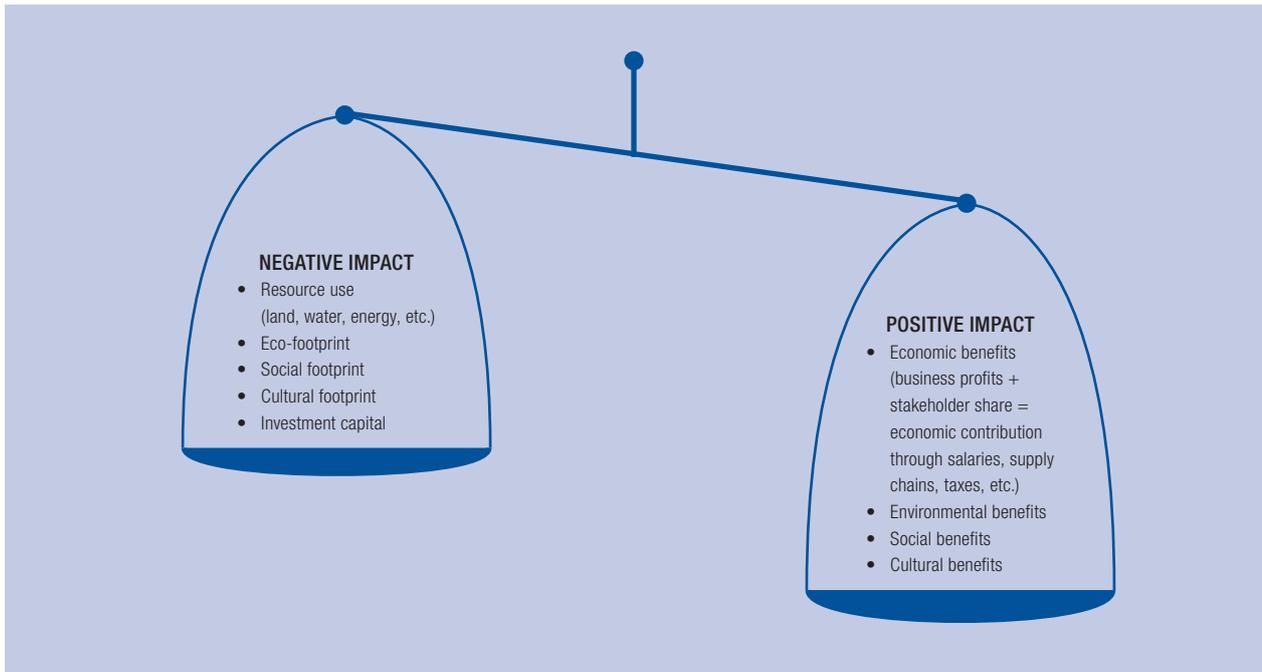
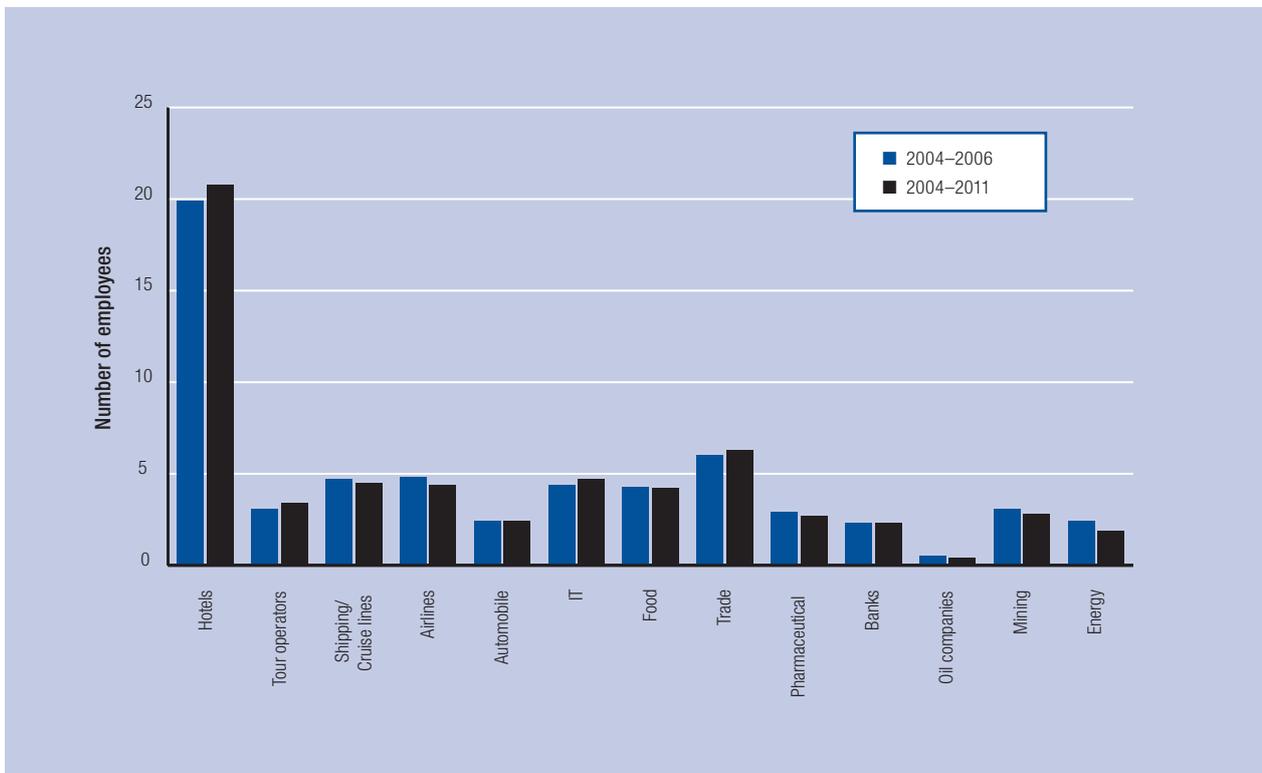


Figure 2: Number of employees per €1 million turnover p.a. in different industries



Source: GIZ research 2012, based on the annual reports of the top five companies globally in each sector.

proximity to Machu Picchu, is Peru's most important cultural tourism hub. Madre de Dios, with more than 35,000 visitors in 2012 and with its natural attractions such as the Tambopata Reserve and Manu Park, is a nature tourism hotspot.

In both regions, a representative sample of hotels and other tourism service providers<sup>2</sup> delivered information about their eco-footprints and about their economic performance and other contributions to the local economy, nature, and cultural conservation. More than 100 employees of these tourism enterprises were interviewed about their jobs and spending habits in the local economy. Likewise, 600 visitors were interviewed about their activities and spending.

This research approach and tools were developed by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). GIZ has used this methodology since 2004 to analyze T&T economic impact in 10 countries around the world. Based on its research, GIZ developed a forecasting tool to project the expected economic contribution and eco-footprint of different types of accommodations investment in Montenegro as a pilot country.

When applying these research methods to Cusco and Madre de Dios, GIZ experienced some challenges, as most hotels and other tourism service providers did not have all the necessary data for a full quantitative appraisal of their eco-footprints, especially data about the amount and composition of solid waste. Likewise, key economic figures about expenses for goods and services were not always well documented, especially in small and medium-sized companies. However, we did collect a critical mass of data that allow us to draw some important preliminary conclusions.

### Data Processing and Analysis

We correlate the data on different aspects of the eco-footprint, such as use of land, water, and energy, with figures quantifying the economic contribution of each service provider, such as revenue, salaries, and other local income generated. Based on these individual figures, we calculate the average correlation between eco-footprint and economic contribution for different types of tourism service providers, such as hotels of a certain type. We also determine the range between the lowest and highest performers.

To explain the different performances, we collected additional information, such as the absence of restaurant service in budget hotels, which explains their low level of local purchases. We ran plausibility checks, for instance, comparing information from visitors about their spending for accommodations with the figures given by hotels.

Currently, we are using the average impact figures for different types of accommodations to adapt the calculations behind our forecasting tool for use in Cusco and Madre de Dios (see Figure 3). GIZ is working on adapting and upgrading this tool to estimate more precisely the impact of different types of

accommodations on local communities, starting from the data collected in this study.

### Land Use Benchmark

In some communities, intensive real estate development has led to speculation and bubbles, generating short-term profits but long-term losses, while more balanced development could have led to continuous, long-term prosperity. In some cases, aiming for short-term profits caused local owners to undervalue their land or to receive unfair compensation for land expropriated for the public good.

To avoid such outcomes, it is important that municipalities, local populations, and tourism planners have information about the future benefits produced on a tract of land used for T&T as compared with alternative uses. For this reason, we established the relationship between the land used for hotel operations and the benefits produced in terms of employment, revenue, salaries, taxes, and spending on supply chains.

Our benchmark is impact per 1,000 square meters of land used by the accommodations. In a densely populated city such as Cusco, a hotel usually covers an area 500–5000 square meters, which larger figure is just half a hectare. Even in Madre de Dios, where land is neither scarce nor expensive, the lodges are usually built on less than a hectare.

In determining the land used by a hotel, we took into account only the area covered by buildings, not the total land area belonging to the hotel, which would include green areas. In Cusco, green areas usually cover less than 10 percent of total hotel area, whereas the eco-lodges in Madre de Dios usually have their own extensive gardens or nature reserves, often covering a bigger area than the facility itself. Although we are mindful of the opportunity costs associated with these areas, we excluded them from our calculations because of the need to compare urban and rural project, and because in most cases, those areas are cleared and used for other commercial purposes.

## RESULTS

Figure 4 summarizes the key economic benefits and ecological costs of 1,000 square meters of hotel area in Cusco.

### Revenue

The average annual revenue of the researched hotels is US\$1.4 million. The highest is US\$5 million in a luxury hotel, which is 125 times as much as the US\$40,000 in a backpacker lodge. Although luxury hotels and eco-lodges cover more space than mid- and low-level hotels, they generate the highest revenue-to-land ratio, with US\$800,000–\$900,000 per 1,000 square meters of built area. This is twice the revenue of US\$400,000–\$500,000 per 1,000 square meters achieved by mid-level hotels, and 8–10 times more than the revenue of low-budget accommodations, which are US\$90,000–\$100,000 per 1,000 square meters of built area.

Figure 3: Blueprint of the Peru Tourism Forecasting Tool

Perú Tourism Forecasting Tool - Accommodation			
Type of Accommodation:	Hotel <input checked="" type="radio"/>		Privat Accommodation & Apartment <input type="radio"/>
Number of Beds:	<input type="text"/>		
Category:	1/2 Stars <input type="radio"/>	3 Stars <input checked="" type="radio"/>	4/5 Stars <input type="radio"/>
Location:	Cusco & Madre de Dios <input checked="" type="radio"/>		Rest of Perú <input type="radio"/>
Economic Impacts			
Average Occupancy Rate:	<input type="text" value="61%"/>		
Number of Jobs:	direct <input type="text" value="0"/>	direct & indirect <sup>1)</sup> <input type="text" value="0"/>	
Salaries of Direct Jobs:	per year	per month	per empl. & month
Amount of Gross Salaries:	<input type="text" value="0 €"/>	<input type="text" value="0 €"/>	<input type="text" value="#DIV/0!"/>
Amount of Net Salaries:	<input type="text" value="0 €"/>	<input type="text" value="0 €"/>	<input type="text" value="#DIV/0!"/>
Distribution of Net Salaries in Total per Year:	Cusco & Madre de Dios <input type="text" value="0 €"/>	Rest of Perú <input type="text" value="0 €"/>	Foreign Countries <input type="text" value="0 €"/>
Distribution in %:	<input type="text"/>	<input type="text"/>	<input type="text"/>
Turnover per Year:	total <input type="text" value="0 €"/>	per bed <input type="text" value="3,716 €"/>	
Expenditures for Food & Beverage:	total per year <input type="text" value="0 €"/>	per bed & year <input type="text" value="445 €"/>	per bed & overnight <input type="text" value="2 €"/>
Distribution of Expenditures for Food & Beverage in Total per Year:	Cusco & Madre de Dios <input type="text" value="0 €"/>	Rest of Perú <input type="text" value="0 €"/>	Foreign Countries <input type="text" value="0 €"/>
Distribution in %:	<input type="text" value="60%"/>	<input type="text" value="40%"/>	<input type="text" value="0%"/>

Note: Indicative figures.

This revenue was achieved with an annual occupancy of 50–77 percent, or an average of 60 percent. For Cusco, occupancy corresponds with the latest figures from official statistics, which show 50–60 percent occupancy for all hotels in Cusco in 2012.

### Employment

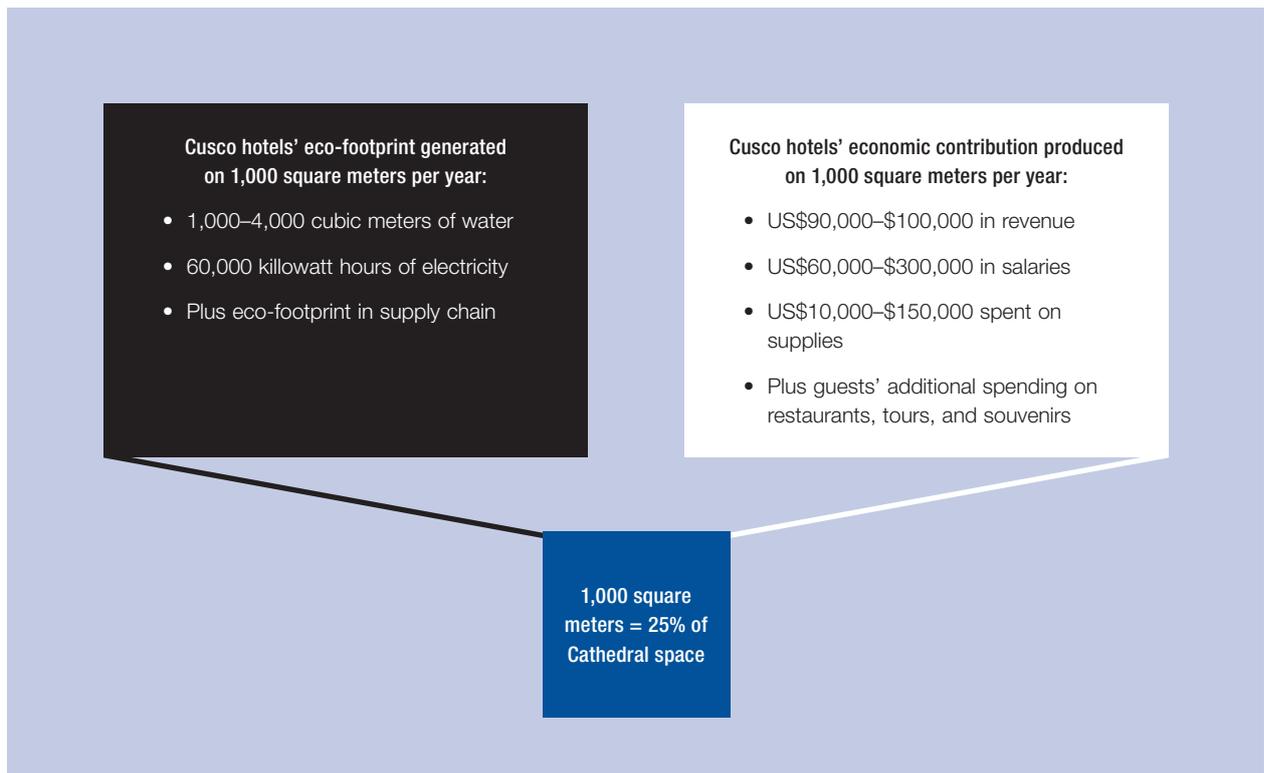
The number of employees in the hotels varies between three in backpacker hostels and 80 in luxury hotels. For every three rooms in hostels create one job, in mid-level hotels create two to three jobs, and in luxury hotels in Cusco create four to five jobs. The best job creator is a luxury eco-lodge in Madre de Dios, which creates seven jobs for every three rooms, because it offers more

services than a city hotel, including transport, energy and water supply, sewage and waste treatment, guest activities, and excursions.

On every 1,000 square meters of land used by hotels, five to seven jobs are created in backpacker hostels and up to 30 jobs in mid-level city hotels and luxury eco-lodges. The average for the hospitality industry is 12.5 jobs created per 1,000 square meters, or 125 jobs per hectare.

Interestingly, the ratio of jobs to revenue is highest for the backpacker segment, where US\$1 million of revenue generates 80 jobs, as compared with 16-18 jobs in the luxury segment of Cusco hotels.

Figure 4: Range of economic contribution and eco-footprint of hotels per 1,000 square meters built area in Cusco



### Salary

The average monthly salary paid by the hotels ranges between US\$300 and US\$800. The low figure paid in low- and mid-level hotels is slightly more than the minimum salary of 750 Nuevos Soles (US\$290), meaning that many jobs in this labor-intensive industry are not well paid, even in luxury hotels. Hotel employees may receive additional benefits such as free meals or transport, which adds to the nominal value of their salaries and makes hotels a more attractive workplace than other industries. The best practice is a luxury eco-lodge that pays US\$700–800 per month, investing nearly 30 percent of its revenue in payroll, as compared with 10–20 percent in the other hotels.

Total payroll ranged from US\$28,000 to US\$700,000 per year, with an average of US\$250,000 per hotel per year.

Through staff interviews, we found out that employees spend about 70–80 percent of this salary at the local level, which translates into an average contribution of US\$200,000 per year from the payroll of an average hotel to the local economy.

For every 1,000 square meters of built hotel area, payroll is US\$60,000–\$300,000. Interestingly, there is no major difference between mid-level and luxury hotels, because the higher number of jobs per room and the higher salaries paid in luxury hotels are offset by the fact that these hotels build only about 10 rooms on this space, whereas low- and mid-level hotels have 20–30 rooms per 1,000 square meters.

### Supply Chain

The expenses of the researched hotels for goods and services range from US\$6,500 per year in a backpacker lodge to more than US\$800,000 per year in a luxury hotel or eco-lodge. Average spending is US\$325,000 per hotel per year, which is equivalent to US\$10,000–\$150,000 annual spending per 1,000 square meters of built hotel area.

This wide range reflects the difference in number and quality of services offered by different types of accommodations, ranging from bed & breakfast to a more sophisticated offering of food, beverages, and services, including spa and wellness. Therefore, these figures have to be interpreted with caution, since the direct economic impact generated through supplies depends on the type of accommodations. On the other hand, the money guests spend for food and other services outside the hotel often compensates for the difference, and this outside spending must be added to the hotel's direct contribution to supply chains.

On average, hotels purchase 97 percent of their goods and services domestically. The majority of spending (81 percent) goes to providers located in other regions of Peru, while 16 percent goes to local providers. Only the remaining 3 percent of direct purchases come from imports; however, it should be considered that a portion of the domestic supplies might themselves be imported by the supplier. This would reduce the national purchase to 80–90 percent, which nevertheless represents a positive and relatively high multiplier.

effect of tourism on national income. Consequently, although the complexity of supply chains involved does not allow for an exact quantification of the aggregate value generated through local and national purchases, it emerges that hotels generate jobs not only directly but also through their supply chains, especially if local farmers can be integrated into these chains, providing high-quality products to hotels. However, for the time being, this scenario appears far from fully realized.

### Water Use

Total water consumption of the researched hotels in Cusco ranges between 140 liters/guest-night in a budget hotel without swimming pool and laundry and 300 liters/guest-night in a luxury hotel offering these facilities. Both water consumption ratios are low when compared with international standards for these types of hotels. For example, the International Tourism Partnership classifies consumption of under 250 liters/guest-night for temperate and 300 liters/guest-night for tropical climates as good.<sup>3</sup>

There is one intriguing exception, an Amazon luxury lodge that uses 700 liters of water per guest-night. Because water is abundant in this ecosystem, and because the lodge has a good wastewater treatment system and re-injects the water into the local ecosystem, this hotel cannot be said to have a problematic water footprint. This example illustrates how qualitative information can sometimes change results that are based on purely quantitative data.

### Energy

Energy consumption in hotels ranges between 6,000 and over 300,000 KWH a year, which translates to 13,000–130,000 KWH per year per 1,000 square meters of built area. The average is 60,000 KWH per 1,000 square meters.

What is most revealing is the environmental and carbon footprints of the hotels' energy consumption. For Cusco, unfortunately, we do not yet have enough information about the energy mix delivered to hotels, especially how much is generated from hydropower and other renewable sources and how much from fossil fuels, and therefore cannot calculate the carbon and climate footprints of hotel operations.

In remote areas of Madre de Dios, eco-lodges do not have a grid connection and need to generate their own energy. Renewable energy technologies such as wind and solar cannot yet cover the full-day energy demand cycle, and their installation in the middle of the jungle would also have a significant eco-footprint. Therefore, eco-lodges have to rely on diesel generators to produce their energy and on solar panels to heat their water. Nevertheless, such eco-lodges can be considered carbon neutral because of the rainforest area protected through their tourism operations. In one case, an area of 17,000 hectares of rainforest has been monitored since 1989 as a carbon sink for more than 3.3 million tons of CO<sub>2</sub>.

### Biodiversity and Culture

For the hotels in the urban environment of Cusco, biodiversity is hardly an issue, but most hotels in Madre de Dios actively add value to biodiversity and nature by generating income for both the protected areas and the adjacent communities. This income incentivizes these communities to refrain from destructive uses such as logging, hunting, and slash-and-burn agriculture.

Similarly, the involvement of indigenous communities in tourism can contribute to the conservation of their cultures. However, in many cases, a lack of preparation among both visitors and communities has had negative effects on indigenous peoples. By contrast, hotels in Cusco generate significant contributions to the conservation of cultural monuments in the area. The cultural footprint of tourism is very difficult to assess, however, and is beyond the scope of this research.

### CROSS-SECTOR COMPARISON: WATER USE IN AGRICULTURE AND TOURISM

Allocation of water between tourism and agriculture is often a difficult issue for governments to resolve. Therefore, it would be helpful to compare these industries' water footprints and economic contributions.

Of all agricultural products, sugar crops have the lowest water footprint, using 200 liters of water to produce 1 kg of sugar.<sup>4</sup> Bovine meat uses 15,400 liters per kg, and coffee—requiring the largest amount of water—uses 21,000 liters per kg. Clearly, agriculture requires an intense use of water for production, all the more so because farmers are not yet using water-efficient technologies, except in some areas where water is extremely scarce or expensive.

In the T&T sector, one guest-night in the researched hotels in Cusco requires an average consumption of 140–300 liters of water, and sells for an average of US\$11 in backpacker hostels and US\$296 in luxury hotels. Thus, hotels can have a much stronger economic impact on national and sometimes local income, but do require the use of the water resources.

These facts show how the two industries bring different and complementary benefits. It is possible to develop both industries at the same time by investing in appropriate infrastructure and institutional coordination to enable treated water from hotels to be used in agriculture.

### CONCLUSIONS

The T&T industry is certainly a strategic sector in Peru, and the government, aware of its potential, has made efforts to promote it. Despite some important progress, there is still much to do, especially in terms of developing the sector in tandem with other industries and winning public support for T&T. This study provides detailed information allowing us to draw some significant preliminary conclusions about the economic performance and eco-footprint of tourism in Cusco and Madre de Dios.

- Total **water consumption** of the researched hotels in Cusco is 140–300 liters/guest-night, depending on the type of hotel. The overall water efficiency of the hotel industry is high, especially considering the average revenue of hotels and the fact that it may be possible to treat and reuse their water for other activities.
- Annual **energy consumption** of hotels averages 60,000 KWH per 1,000 square meters.
- Hotels have a significant **impact on employment**, with an average of 12.5 jobs created for every 1,000 square meters.
- Hotels generate **annual revenue** of US\$800,000–\$900,000 per year (in luxury hotels and eco-lodges), US\$400,000–\$500,000 per year (in mid-level hotels), and US\$90,000–\$100,000 per year (in low-budget accommodations).
- The hotel industry has a **positive impact on the local supply chain**, with almost 97 percent of the supply chain based in Peru. Hotels spend US\$10,000–\$150,000 per 1,000 square meters on goods and services.
- While building a mid-level hotel in a city is very resource-efficient and leverages already existing infrastructure, building a rural resort results in a larger eco-footprint due to the additional space necessary to set up roads and other infrastructure. However, new rural tourism construction has a positive impact on the development of the local community, incentivizes protection of natural resources, and contributes to maintaining cultural expressions.

This analysis shows that tourism is one of the most efficient industries for driving Inclusive Green Growth in Peru, creating jobs and income for many people for a small eco-footprint. To create 10,000 jobs in Peru, the hospitality industry uses less than 100 hectares, or 1 square km of land. It uses less than 1 hectare to contribute US\$1 million to the Peruvian economy.

More detailed information about the actual costs and benefits of tourism can help authorities to make better-informed decisions while changing the public's opinion of the T&T industry. In addition, to reduce friction with other sectors, the government should incentivize the integration of the hotel industry's supply chain with other local industries, especially agriculture, while promoting resource-efficient technologies.

If Peru implements a better decision-making framework, one that is based on factual cost-benefit analysis, it will be able to integrate development of the T&T industry with other economic activities and to leverage the country's tourism potential in a sustainable way.

## NOTES

- 1 Global Footprint Network, *2011 Annual Report: What Happens When an Infinite-Growth Economy Runs into a Finite Planet?*, [http://www.footprintnetwork.org/images/article\\_uploads/2011\\_Annual\\_Report.pdf](http://www.footprintnetwork.org/images/article_uploads/2011_Annual_Report.pdf).
- 2 The researchers surveyed and interviewed 55 tourism service providers (hotels, tour operators, travel agencies, and excursion and transport providers) and 45 suppliers of goods and services to hotels.
- 3 International Tourism Partnership, <http://www.tourismpartnership.org/what-we-do/key-issues/water>.
- 4 Figures about average worldwide water footprints of different crops are available at Water Footprint Network, <http://www.waterfootprint.org/?page=files/productgallery>. No country-specific water footprint data are available, so we use the world-wide average.



# Peru T&T Country Profile

# Peru

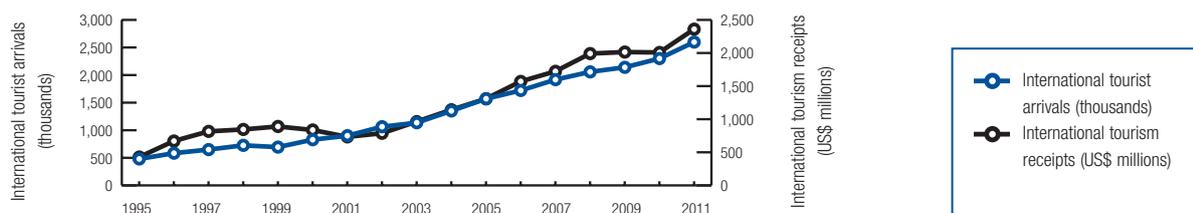
## Key indicators

Population (millions), 2011 .....	29.7
Surface area (1,000 square kilometers), 2011 .....	1,285.2
Gross domestic product (current US\$ billions), 2011 .....	177.2
Gross domestic product (current PPP, \$) per capita, 2011 .....	10,062.3
Real GDP growth (percent), 2011 .....	6.9
Environmental Performance Index 2012, rank (out of 132 economies), 2011 .....	81

## Travel & Tourism indicators

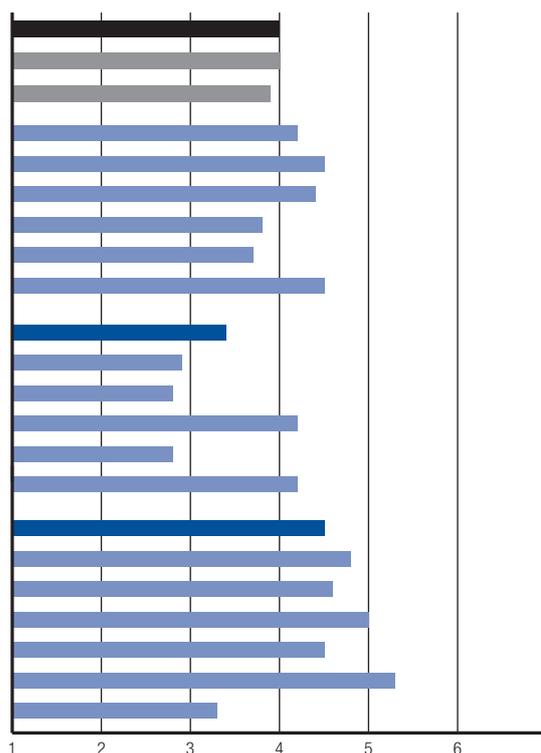
	Absolute value	Percent of total	T&T industry GDP growth forecast (2013–2022)
<b>T&amp;T industry, 2012 estimates</b>			
T&T industry GDP (US\$ millions).....	6,361.8	3.5	5.0
T&T industry employment (1,000 jobs) .....	360.8	2.7	3.1
<b>T&amp;T economy, 2012 estimates</b>			
T&T economy GDP (US\$ millions) .....	16,501	9.1	5.0
T&T economy employment (1,000 jobs) .....	1,046	7.8	3.0

International tourist arrivals (thousands), 2011 .....	2,597.8
International tourism receipts (US\$, millions), 2011 .....	2,359.7



## The Travel & Tourism Competitiveness Index

	Rank (out of 140)	Score (1–7)
<b>2013 Travel &amp; Tourism Competitiveness Index</b> .....	<b>73</b>	<b>4.0</b>
2011 Travel & Tourism Competitiveness Index.....	69	4.0
2009 Travel & Tourism Competitiveness Index.....	74	3.9
<b>T&amp;T regulatory framework</b> .....	<b>96</b>	<b>4.2</b>
Policy rules and regulations .....	70	4.5
Environmental sustainability .....	85	4.4
Safety and security .....	118	3.8
Health and hygiene.....	98	3.7
Prioritization of Travel & Tourism .....	58	4.5
<b>Business environment and infrastructure</b> .....	<b>85</b>	<b>3.4</b>
Air transport infrastructure .....	75	2.9
Ground transport infrastructure.....	121	2.8
Tourism infrastructure .....	67	4.2
ICT infrastructure .....	83	2.8
Price competitiveness in the T&T industry .....	103	4.2
<b>T&amp;T human, cultural, and natural resources</b> .....	<b>37</b>	<b>4.5</b>
Human resources .....	80	4.8
Education and training.....	74	4.6
Availability of qualified labor.....	78	5.0
Affinity for Travel & Tourism .....	82	4.5
Natural resources .....	12	5.3
Cultural resources.....	43	3.3



## The Travel &amp; Tourism Competitiveness Index in detail

INDICATOR	SCORE	RANK	INDICATOR	SCORE	RANK
<b>1st pillar: Policy rules and regulations</b> .....	<b>4.5</b> .....	<b>70</b>	<b>8th pillar: Tourism infrastructure</b> .....	<b>4.2</b> .....	<b>67</b>
1.01 Prevalence of foreign ownership .....	5.3 .....	34	8.01 Hotel rooms/100 pop.* .....	0.7 .....	45
1.02 Property rights .....	3.8 .....	96	8.02 Presence of major car rental co. (1-7)* .....	6 .....	32
1.03 Business impact of rules on FDI .....	5.3 .....	21	8.03 ATMs accepting Visa cards/million pop.* .....	220.0 .....	81
1.04 Visa requirements, no. of countries* .....	92.0 .....	39	<b>9th pillar: ICT infrastructure</b> .....	<b>2.8</b> .....	<b>83</b>
1.05 Openness bilateral ASAs (0-38)* .....	17.1 .....	21	9.01 ICT use for B-to-B transactions .....	4.8 .....	79
1.06 Transparency of government policymaking .....	4.1 .....	86	9.02 ICT use for B-to-C transactions .....	4.6 .....	67
1.07 No. of days to start a business* .....	26 .....	98	9.03 Individuals using the Internet, %* .....	36.5 .....	77
1.08 Cost to start a business, % GNI/capita* .....	10.6 .....	75	9.04 Fixed telephone lines/100 pop.* .....	12.5 .....	85
1.09 GATS commitment restrictiveness (0-100)* .....	18.2 .....	114	9.05 Broadband Internet subscribers/100 pop.* .....	4.0 .....	81
<b>2nd pillar: Environmental sustainability</b> .....	<b>4.4</b> .....	<b>85</b>	9.06 Mobile telephone subscriptions/100 pop.* .....	110.4 .....	57
2.01 Stringency of environmental regulation.....	3.7 .....	79	9.07 Mobile broadband subscriptions/100 pop.* .....	1.4 .....	107
2.02 Enforcement of environmental regulation .....	3.1 .....	99	<b>10th pillar: Price competitiveness in T&amp;T ind.</b> .....	<b>4.2</b> .....	<b>103</b>
2.03 Sustainability of T&T industry development.....	4.8 .....	53	10.01 Ticket taxes and airport charges (0-100)* .....	41.1 .....	135
2.04 Carbon dioxide emission, million tons/capita* .....	1.4 .....	46	10.02 Purchasing power parity* .....	0.6 .....	54
2.05 Particulate matter concentration, µg/m <sup>3</sup> * .....	43.0 .....	94	10.04 Fuel price, US\$ cents/liter* .....	110.0 .....	71
2.06 Threatened species, %* .....	10.2 .....	118	10.03 Extent and effect of taxation .....	3.4 .....	75
2.07 Environm. treaty ratification (0-25)* .....	20 .....	53	10.05 Hotel price index, US\$* .....	130.8 .....	62
<b>3rd pillar: Safety and security</b> .....	<b>3.8</b> .....	<b>118</b>	<b>11th pillar: Human resources</b> .....	<b>4.8</b> .....	<b>80</b>
3.01 Business costs of crime and violence .....	3.4 .....	121	<i>Education and training</i> .....	4.6 .....	74
3.02 Reliability of police services.....	3.0 .....	124	11.01 Primary education enrollment, net %* .....	95.4 .....	51
3.03 Road traffic accidents/100,000 pop.* .....	21.5 .....	90	11.02 Secondary education enrollment, gross %* .....	91.4 .....	58
3.04 Business costs of terrorism .....	4.7 .....	115	11.03 Quality of the educational system .....	2.5 .....	129
<b>4th pillar: Health and hygiene</b> .....	<b>3.7</b> .....	<b>98</b>	11.04 Local availability specialized research & training... ..	3.9 .....	84
4.01 Physician density/1,000 pop.* .....	0.9 .....	91	11.05 Extent of staff training .....	3.8 .....	83
4.02 Access to improved sanitation, % pop.* .....	71.0 .....	93	<i>Availability of qualified labor</i> .....	5.0 .....	78
4.03 Access to improved drinking water, % pop.* .....	85.0 .....	104	11.06 Hiring and firing practices .....	3.4 .....	104
4.04 Hospital beds/10,000 pop.* .....	15.0 .....	99	11.07 Ease of hiring foreign labor .....	4.0 .....	83
<b>5th pillar: Prioritization of Travel &amp; Tourism</b> .....	<b>4.5</b> .....	<b>58</b>	11.08 HIV prevalence, % adult pop.* .....	0.4 .....	76
5.01 Government prioritization of the T&T industry .....	5.4 .....	60	11.09 Business impact of HIV/AIDS.....	5.0 .....	85
5.02 T&T gov't expenditure, % gov't budget* .....	2.7 .....	87	11.10 Life expectancy, years* .....	74.0 .....	62
5.03 Effectiveness of marketing to attract tourists .....	5.3 .....	28	<b>12th pillar: Affinity for Travel &amp; Tourism</b> .....	<b>4.5</b> .....	<b>82</b>
5.04 Comprehensiveness of T&T data (0-120)* .....	70.0 .....	54	12.01 Tourism openness, % of GDP* .....	2.1 .....	114
5.05 Timeliness of T&T data (0-18)* .....	13.5 .....	71	12.02 Attitude of population toward foreign visitors .....	6.0 .....	96
<b>6th pillar: Air transport infrastructure</b> .....	<b>2.9</b> .....	<b>75</b>	12.03 Extension of business trips recommended .....	5.6 .....	48
6.01 Quality of air transport infrastructure .....	4.5 .....	74	12.04 Degree of customer orientation.....	4.9 .....	45
6.02 Airline seat kms/week, dom., millions* .....	74.9 .....	33	<b>13th pillar: Natural resources</b> .....	<b>5.3</b> .....	<b>12</b>
6.03 Airline seat kms/week, int'l, millions* .....	333.4 .....	44	13.01 No. of World Heritage natural sites* .....	4 .....	10
6.04 Departures/1,000 pop.* .....	2.3 .....	82	13.02 Quality of the natural environment.....	3.4 .....	123
6.05 Airport density/million pop.* .....	0.6 .....	75	13.03 Total known species* .....	2,733 .....	3
6.06 No. of operating airlines* .....	25.0 .....	71	13.04 Terrestrial biome protection (0-17%)* .....	13.4 .....	52
6.07 International air transport network .....	5.0 .....	59	13.05 Marine protected areas, %* .....	0.3 .....	71
<b>7th pillar: Ground transport infrastructure</b> .....	<b>2.8</b> .....	<b>121</b>	<b>14th pillar: Cultural resources</b> .....	<b>3.3</b> .....	<b>43</b>
7.01 Quality of roads .....	3.1 .....	99	14.01 No. of World Heritage cultural sites* .....	16 .....	18
7.02 Quality of railroad infrastructure .....	1.9 .....	95	14.02 Sports stadiums, seats/million pop.* .....	36,082.0 .....	68
7.03 Quality of port infrastructure.....	3.5 .....	110	14.03 No. of int'l fairs and exhibitions* .....	56.3 .....	42
7.04 Quality of ground transport network .....	4.0 .....	101	14.04 Creative industries exports, % of world total* .....	0.1 .....	61
7.05 Road density/million pop.* .....	10.0 .....	116			



# About the Authors

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Thea Chiesa is Director and Head of Aviation & Travel Services at the World Economic Forum. She has a background in business development and strategic planning in the aerospace/telecom industry, having spent nine years working with Telespazio as part of both Telecom Italia and Finmeccanica. She was part of the founding team of TVFiles SpA, an Italian telecommunications startup offering satellite broadband services to the media, pharmaceutical, and 3G industries, where she held the role of business developer and was responsible for relations with the European Union and European Space Agency. At the Forum, she has developed an expertise in the Travel & Tourism industry, having headed the community for eleven years. Coupled with her background in advanced communications systems, Ms Chiesa has developed a passion for the Travel & Tourism industry and has experience analyzing consumer trends. She is currently working with key government and industry leaders in developing strategies and implementing innovative projects in the fields of T&T competitiveness, the future of travel and transportation industries, trade related to the transportation industry, and managing transportation risk. Ms Chiesa has a BSc in Management from Boston College and an MA in International Relations from Boston University. She is an alumna of the World Economic Forum's Global Leadership Fellows Programme.

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Roberto Crotti is a Quantitative Economist and Manager with the Global Competitiveness and Benchmarking Network at the World Economic Forum. His responsibilities include the computation of a range of indexes as well as data analysis for various projects and studies. His main areas of expertise are quantitative research, forecasting, macroeconomics, and public economics. Prior to joining the Forum, he worked as an analyst in the private consulting and forecasting sector. Mr Crotti holds an undergraduate degree in Economics/Economic Policy from Università Cattolica del Sacro Cuore in Milan, Italy, and an MA in Economics from Boston University in the United States.

## Klaus Lengefeld

Klaus Lengefeld is Sector Leader, Tourism, at GIZ, the German International Cooperation Agency, a government-owned limited company for sustainable development. He has both a very practical background—he is a truck mechanic—and an academic background in education and sustainable development from the universities of Frankfurt and Berlin. In 1982 he started his career in promoting sustainable development and appropriate technologies for German and international development agencies. After training in tourism development at prestigious universities such as St. Gallen, Switzerland, he began his tourism career in 1997 as advisor for sustainable tourism for GIZ in Central America. After his return to GIZ headquarters, Mr Lengefeld started unique initiatives to bridge the gap between development cooperation and mainstream tourism. He was the first to take a closer look into the socio-economic interaction of hotels, All-Inclusive, and luxury resorts with local economies in destinations from the Caribbean to Southeast Asia. His current priority is to help to position T&T as a major driver of a climate-friendly Inclusive Green Economy. Among his partners are global tourism players from the hospitality industry, tour operators, and development banks such as the International Finance Corporation IFC. Mr Lengefeld is a visiting professor teaching sustainable tourism at Heilbronn University, Germany.



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