

Insight Report

The ASEAN Travel & Tourism Competitiveness Report 2012

Fostering Prosperity and Regional Integration
Through Travel and Tourism



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We thank Gilly Nadel for her excellent editing work and Neil Weinberg for his superb graphic design and layout.

The terms *country* and *nation* as used in this *Report* do not in all cases refer to a territorial entity that is a state as understood by international law and practice. The terms cover well-defined, geographically self-contained economic areas that may not be states but for which statistical data are maintained on a separate and independent basis.

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Preface

BØRGE BRENDE

Managing Director, Government Relations and Constituents Engagement, World Economic Forum

Over recent decades, the travel and tourism (T&T) sector has increasingly become an important driver of economic prosperity and social progress. It stimulates growth through jobs and enterprise creation, and provides significant foreign exchange revenues for many countries. The sector generates opportunities for reducing poverty and inequality, preserving natural and cultural heritage, and upgrading infrastructure.

With this in mind, the World Economic Forum released for the first time in 2007 the Travel and Tourism Competitiveness Index (TTCI) in order to assess the obstacles and drivers of T&T development. The findings have been presented in four editions of *The Travel and Tourism Competitiveness Report*. The present *Report* analyzes in detail the performance of eight countries of the Association of Southeast Asian Nation (ASEAN) in the most recent TTCI.

By 2015, ASEAN member countries aim to establish the ASEAN Community (AC), a security, economic, and socio-cultural community of over 600 million people, which will account for nearly 5 percent of world GDP. In its more than four decades of existence, despite some delays and setbacks, progress towards integration has been significant. ASEAN leaders have long recognized the vital role T&T can play in realising their ambitions.

Indeed, the potential for developing the T&T sector in the ASEAN region is enormous. The region is blessed with a wealth of natural and cultural heritage. It possesses a long tradition of tourism, and is strategically located at the heart of Asia, the world's most economically dynamic region. The extraordinary diversity of ASEAN countries, while posing some challenges to integration, further enhances their attractiveness. This *Report* assesses the strengths that can be leveraged and the obstacles that must be addressed for ASEAN 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 East Asia 2012, the overarching theme of which—"Shaping the Region's Future through Connectivity"—will surely resonate for the T&T sector. We hope that this *Report* and the subsequent discussions will inform the decisions of ASEAN's policymakers and provide a valuable tool in achieving their vision.

I would like to thank the author of this *Report*, Thierry Geiger, for his energy and commitment to producing this study. I would also like to express my gratitude to Jennifer Blanke, Thea Chiesa, and Margareta Drzeniek Hanouz for their guidance, as well as to the other members of the Competitiveness and Aviation, Travel, and Tourism Teams. I am also grateful to Sushant Palakurthi Rao for supporting this project and other competitiveness-related research and outreach activities in Asia. 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 our network of 150 Partner Institutes, whose support and commitment make this work possible.

Executive Summary

THIERRY GEIGER

World Economic Forum

The travel and tourism (T&T) sector has become an important driver of growth and prosperity for many countries. It is estimated that the T&T sector accounts for about 9 percent of GDP and employment worldwide. Yet, despite its economic weight and the many benefits it provides, numerous obstacles hinder its development, including in countries of the Association of Southeast Asian Nations (ASEAN). Using a unique methodological framework, this *Report* studies those obstacles, as well as the enablers of development for eight ASEAN member countries and the region.

By 2015, ASEAN member countries aim to establish the ASEAN Community (AC), a security, economic, and socio-cultural community of over 600 million people that should by then account for almost 5 percent of world GDP. ASEAN leaders have long recognized the vital role T&T can play in realizing their vision. They have been joining forces to address T&T-related issues, which greatly benefit from regional cooperation, such as promotion and marketing, connectivity, environmental protection, visa policies and mobility, and sector liberalization. The ASEAN members have been successful in several aspects, but also experienced setbacks and are still facing major challenges, as this study shows.

The potential for developing the T&T sector is enormous. The Southeast Asia region has many assets to lure the visitor. It boasts some of the world's most spectacular landscapes and attractions, vast ecosystems with stunning wildlife, and rich culture and history. It possesses a long tradition of tourism, and is strategically located in the heart of Asia, the world's most economically dynamic region. The extraordinary diversity of ASEAN countries, while posing some challenges to integration, further enhances the attractiveness of the region, which offers complementary tourism experiences and appeals to visitors of all types.

The T&T sector plays an important role in the overall ASEAN economy. It is estimated to account for 4.6 percent of ASEAN GDP and 10.9 percent when taking into account all indirect contributions. It directly employs 9.3 million people, or 3.2 percent of total employment, and indirectly supports some 25 million jobs. The analysis, however, reveals a very mixed picture in terms of the tourism performances of individual ASEAN countries. Singapore, for example, draws 20 times more tourists per capita and 30 times more receipts per capita than the ASEAN average. Malaysia is one of the world's top 10 destinations, with about 25 million visitors per year, while the Philippines, despite its much

larger population, attracts six times fewer. The Travel and Tourism Competitiveness Index (TTCI) sheds some light on the factors underpinning such mixed results.

Measuring travel and tourism competitiveness

Developed by the World Economic Forum in collaboration with experts from the sector, the TTCI is a comprehensive framework that aims to *measure the factors and policies that make it attractive to develop the T&T sector in different countries*. It 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 Index: (i) the T&T regulatory framework subindex; (ii) the T&T business environment and infrastructure subindex; and (iii) 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”. There are 14 pillars in total: (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 indicators, of which there are 75 in all. The dataset includes both 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.

The fourth edition of the TTCI was published in *The Travel and Tourism Competitiveness Report 2011* and covers a record 139 countries. Switzerland tops the TTCI rankings for the third edition in a row, followed by Germany and France.

ASEAN performance in the TTCI

Through the lens of the TTCI, we identify the strengths that can be leveraged and the obstacles that must be addressed for ASEAN fully to reap the benefits of T&T. The assessment reveals ASEAN member countries in

the TTCI 2011 draws a very mixed picture of the region. Singapore (10th), Malaysia (35th), Thailand (41st), Brunei Darussalam (67th), Indonesia (74th), Vietnam (80th), the Philippines (94th), and Cambodia (109th) span almost the entire rankings of 139 economies. Due to limited data availability, Lao PDR and Myanmar are excluded from the analysis.

With only three countries featured in the top 50 of the TTCI, the T&T sector in ASEAN undoubtedly faces a number of challenges. Yet, one must recognize that there exists a close relationship between performance in the TTCI and prosperity, and the rankings continue to be led by advanced economies, of which group Singapore is the only representative among ASEAN members. This is explained by the fact that advanced economies, on average, fare significantly better in most areas of the TTCI, including hard and soft infrastructures, regulatory framework, security, and public health. These factors benefit all sectors, boosting productivity and economic development. In other words, advanced economies had to have these factors in place in order to attain their “advanced status” in T&T.

At 35th, Malaysia is actually the top-ranked developing country overall and, seen in this light, its performance can be qualified as strong. Indeed, all seven ASEAN members feature among the 10 best developing economies in Asia, alongside China (39th), India (68th), and Sri Lanka (81st). Nepal, Pakistan, Bangladesh, and Timor-Leste all place behind Cambodia, ASEAN’s worst performer. As for Singapore, it is the best-performing advanced economy outside Europe and North America. It leads the Asian Tigers, ahead of Hong Kong (12th), Korea (32nd), and Taiwan, China (37th). It also precedes Australia (13th), New Zealand (19th), and Japan (22nd).

The analysis of their performances in the TTCI allows us to classify ASEAN member countries into four groups. Singapore is in a league of its own, leading ASEAN in all but two pillars of the TTCI. Second, Malaysia and Thailand do well, despite a few weaknesses. The third group consists of Vietnam, Indonesia, and Brunei Darussalam, which all display very wide performance swings. Finally, both the Philippines and Cambodia present serious shortcomings in most pillars.

Despite the diverse performances, there exist common strengths and weaknesses throughout the region. Most ASEAN countries are blessed with extraordinary natural and cultural heritages, which obviously provide fertile ground for T&T development. It must be noted that these countries could do more to showcase and preserve their heritage. The competitiveness of the sector, however, does not necessarily hinge on natural and cultural heritage—Singapore and Cambodia being two extreme examples.

Government prioritization of T&T is another strength shared by most ASEAN countries. Concrete actions, however, do not always follow. A third area of strength is the region’s affordability. Visiting the region is relatively cheap by international

standards. Undoubtedly, price competitiveness is an asset, given the present economic context.

On the other hand, inadequate infrastructure in vast swaths of the region remains a significant obstacle to the development of not only the T&T sector but the private sector in general. This deficit hinders physical connectivity, exacerbates disparities, and undermines the vision of the ASEAN Community. ASEAN and its members are aware of the problem and consider it a priority. But more than political will, bridging the gap will require massive investment in coming years.

A second area of concern is the poor public health situation, alarming in some parts of ASEAN, where inadequate sanitary infrastructure and poor hygiene result in poor health outcomes. Unhealthy conditions are an inconvenience for tourists, but for the society at large, they are a major issue requiring urgent attention.

Environmental stewardship represents another area of relative weakness. Conservation efforts must be commensurate with the region’s extraordinary natural heritage and the tourism attractiveness it derives from that heritage. Governments in the region face the daunting challenge of balancing the socio-economic interests of different stakeholders while meeting the sustainability imperative. Their success has been partial and, despite their commitment, evidence shows that the natural environment is under great strain and deteriorating in many places.

The ASEAN Tourism Strategic Plan 2011-2015 provides a roadmap to 2015 to address most of the bottlenecks and leverage the strengths identified in this *Report*. Provided they get implemented, these measures will not only unleash the potential of the T&T sector, but also boost the region’s competitiveness, help the region’s poorer countries to move up the value chain, produce enormous socio-economic benefits, and greatly contribute to the realization of the ASEAN Community.

The *Report* contains a pillar-by-pillar analysis of the results for ASEAN countries. A number of text boxes complement the analysis. Among the topics is an overview of global and regional trends in tourism; a review of the various initiatives carried out by ASEAN to develop the T&T sector; an analysis of ASEAN’s group performance in the TTCI as it compares with other country groups; a review of ASEAN’s single visa program and visa requirements; an analysis of intra-ASEAN air connectivity; and an assessment of the region’s natural heritage. The *Report* also features the *ASEAN Scorecard* which reports the detailed performance of ASEAN countries in the different components of the TTCI.

The release of this study coincides with the Summit on Travel, Trade & Tourism, organized in the lead-up to the World Economic Forum on East Asia 2012 in Bangkok, Thailand.

Fulfilling the Promises of Travel and Tourism in ASEAN

THIERRY GEIGER

World Economic Forum

The travel and tourism (T&T) sector has become an important driver of growth and prosperity for many countries (see Box 1). It contributes to development by creating jobs and enterprises through direct activities and backward linkages, provides additional incentives for infrastructure development, and earns foreign exchange revenues. It is estimated that the T&T sector accounts for about 9 percent of world GDP and employment.¹ Yet, despite its economic weight and the many benefits it provides, numerous obstacles hinder its development.

Launched in 2007, the World Economic Forum's Travel and Tourism Competitiveness Index (TTCI) aims to identify and measure the obstacles to, and enablers of, T&T development. The present study analyzes the performance of eight member countries of the Association of Southeast Asian Nations (ASEAN) in the TTCI, namely Brunei Darussalam, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.²

Undoubtedly, the Southeast Asia region has many assets to lure the visitor.³ It boasts some of the world's most spectacular landscapes and attractions, vast ecosystems with stunning wildlife, and rich culture and history. There exists a long tourism tradition in parts of the region. The T&T sector is estimated to account for 4.6 percent of ASEAN GDP and 10.9 percent when taking into account all indirect contributions.⁴ It directly employs 9.3 million people, or 3.2 percent of total employment, and indirectly supports some 25 million jobs.

Tourism performance is mixed, however. The sector is well developed in some countries and only

nascent in others. Malaysia is one of the world's top 10 destinations, with about 25 million visitors per year, while the Philippines, despite its much larger population, attracts six times fewer. Tourism accounts for about 15 percent of Cambodia's GDP, but just 1 percent of Indonesia's (see Table 1).

Indeed, diversity is one of the region's defining characteristics. From a tourism perspective, this represents an important asset. The region can offer very diverse and complementary experiences and attractions and appeal to visitors of all types. A true social, political, and geographical patchwork, it brings together a diverse set of economies. Singapore is 80 times richer than the least developed country, Myanmar. Indonesia is 600 times more populous than Brunei Darussalam. The coasts of the Philippines stretch over 36,000 km, while Laos is landlocked.

Furthermore, the region is uniquely positioned at the heart of Asia, the world's most dynamic region. It is situated between China and India, two of the largest and fastest-growing markets, along with their rising middle classes. Richer countries, such as Japan, Australia, and even the Gulf countries, are not too far away. The region itself has been enjoying brisk economic development, which creates a greater need for business travel and also means more people can afford to travel. At the same time, the region remains relatively inexpensive by international standards, a strong argument to lure tourists from traditional markets, especially tourists from Europe, where the difficult economic situation makes them more price conscious.

Table 1: Selected tourism and economic indicators for ASEAN members, 2011

	TTCI	International tourist arrivals		International tourism receipts			Population	GDP per capita
	Rank /139	thousand	per 100 pop.	US\$ million	% of GDP	US\$ per capita	million	US \$
Brunei Darussalam	67	214*	51.7	254 [†]	1.8 [†]	613.5 [†]	0.4	29,852
Cambodia	109	2,882	19.3	1,683	15.0	112.6	15.0	753
Indonesia	74	7,650	3.2	7,952	1.1	33.5	237.6	2,981
Lao PDR	—	1,670*	25.9	382*	6.8*	59.3*	6.4	1,004
Malaysia	35	24,714	87.5	18,259	7.7	646.3	28.3	8,418
Myanmar	—	391	0.6	73*	0.2*	1.2*	61.2	742
Philippines	94	3,917	4.2	2,783	1.7*	29.6	94.0	2,123
Singapore	10	10,390	200.4	17,990	7.9	3,470.3	5.2	43,865
Thailand	41	19,098	29.9	26,256	8.2	411.0	63.9	4,992
Vietnam	80	6,014	6.8	5,620	5.4	63.7	88.3	1,174
ASEAN	—	76,940*	12.8	68,639*	4.6*	114.4*	600.2	3,117

Sources: World Economic Forum; UNWTO 2012; IMF, World Economic Outlook (April 2012); and authors' calculations.

*2010 [†]2009

Box 1: Global and regional trends in tourism

Over the past six decades, tourism has experienced continued expansion and diversification. It has become one of the largest and fastest-growing economic sectors in the world. In spite of many shocks, long-term trends are indeed impressive: tourism rose from 25 million international tourist arrivals (ITA) in 1950 to a record 980 million ITA in 2011.¹

The T&T sector has not been spared by the recent economic turmoil. ITA declined by 3.8 percent between 2008 and 2009, which corresponded to the trough of the crisis. International tourism receipts (ITR), another gauge of the sector's health, plunged 5.6 percent during the same period. But the sector has rebounded swiftly, posting a growth of 6.5 percent in 2010 and 4.4 percent in 2011. In monetary terms, ITR amounted to US\$919 billion in 2010, the latest year for which data are available.

Emerging markets have been leading the recovery. Mirroring the global economic shift currently underway, the share of international tourist arrivals received by emerging and developing economies rose from 31 percent in 1990 to 47 percent in 2011. This trend is likely to continue. UNWTO forecasts that, by 2020, emerging and developing economies will receive 53 percent of all tourist arrivals.²

The Asia and Pacific region was the fastest-growing region in terms of ITA in 2010. It now accounts for 22 percent of ITA worldwide, up from 16 percent in 2000. More specifically in ASEAN, tourism has grown steadily over the

past decade, including intra-regional travel. ITA grew by 12 percent annually from 2000 to 2010, going from 36 million ITA in 2000 to 77 million ITA in 2010. The share of ASEAN in total global ITA went from 5.4 percent in 2000 to 7.9 percent in 2010, which corresponds to an increase of almost 50 percent. Meanwhile the number of arrivals nearly doubled from 6.9 to 11.8 arrivals per 100 population. Intra-ASEAN tourism (i.e., visitors from ASEAN countries visiting other ASEAN countries) accounts for 43 percent of all ITA in ASEAN.

While long-term trends and prospects for the sector are positive, the current global context remains challenging, owing to continuing economic uncertainty, high energy prices that raise the cost of travel, and political upheaval in some countries. A trend reversal is a real and persistent threat to the continued development of the T&T sector, which is particularly vulnerable to negative shocks. The consequences can be dire for businesses and for employment and growth, especially in those countries that rely heavily on tourism.

Notes

- 1 UNWTO 2011a and UNWTO 2012. Figures for 2011 are preliminary.
- 2 UNWTO 2011b.

In addition to these strengths, there seems to be strong political will in ASEAN member countries to develop the T&T sector, as it is seen as one of the key sectors supporting the creation of the ASEAN Community. Box 2 reviews the initiatives of ASEAN related to T&T since its inception in 1967.

Thanks to the region's strategic location, cultural and natural heritage, diversity, tradition of tourism, and political will, T&T in ASEAN holds great potential. Through the lens of the TTCl, this study aims to enable dialogue among relevant stakeholders about ways to address obstacles and leverage strengths at both the national and regional levels in order to realize the potential of the T&T sector more fully and sustainably.

MEASURING TRAVEL AND TOURISM COMPETITIVENESS

Although the T&T sector provides many benefits, numerous obstacles at the national level hinder its growth. The Travel & Tourism Competitiveness Index, developed by the World Economic Forum in collaboration with experts in the sector, measures the many different regulatory and business-related issues that have been identified as levers for improving T&T competitiveness in countries around the world. Through analysis of each dimension of the Index, businesses and governments can address country-level challenges. Such analysis can also inform policies at the regional level.

The TTCl is a comprehensive index that aims to measure *the factors and policies that make it attractive to develop the T&T sector in different countries*. The TTCl

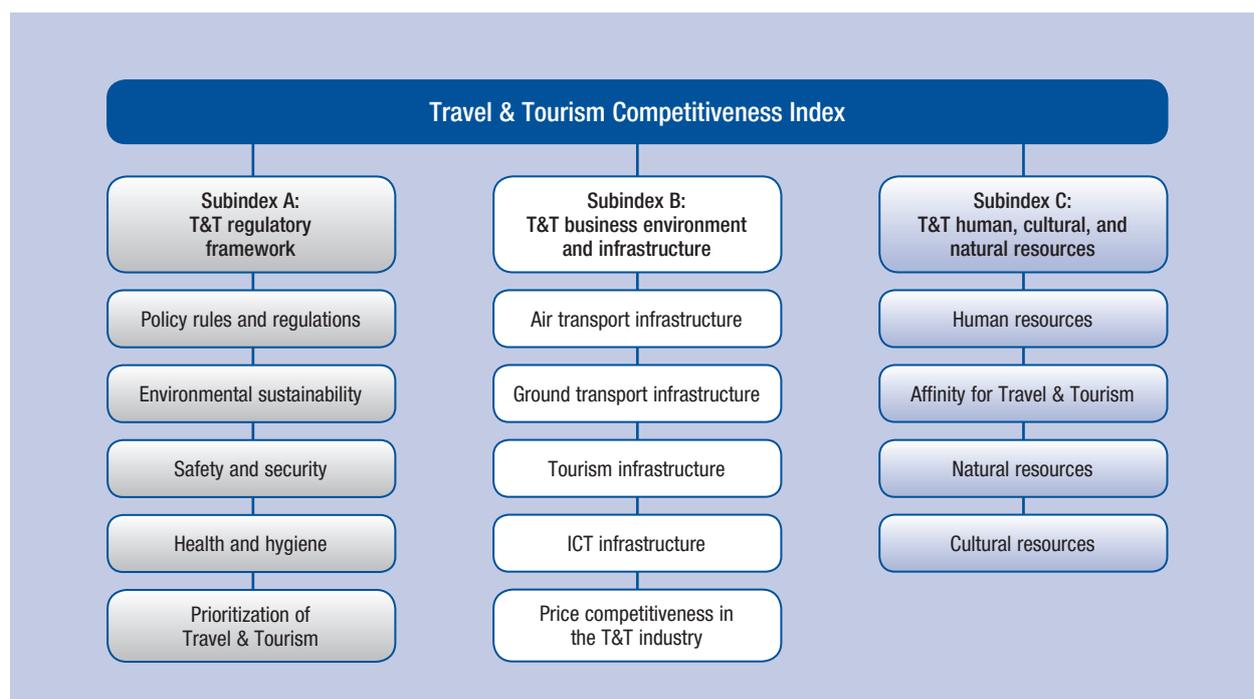
covers three broad categories that facilitate or drive T&T competitiveness. These categories are presented as three subindexes:

- A. T&T regulatory framework.** This subindex captures those elements that are policy related and generally under the purview of governments.
- B. T&T business environment and infrastructure.** This subindex captures elements of the business environment and the "hard" infrastructure of a country.
- C. 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 TTCl and the allocation of the 14 pillars within the three subindexes.⁵ 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.

Figure 1: The TTCI framework



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 to what extent the government has in place a vision for developing the T&T sector and makes the sector a priority.
6. **Air transport infrastructure** (7 indicators). This pillar measures both the quantity and quality of air transport infrastructure.
7. **Ground transport infrastructure** (5 indicators). This pillar measures both the quantity and 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** (5 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** (3 indicators). This pillar measures the extent to which a country and society are open to tourism and foreign visitors.
13. **Natural resources** (4 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., the aggregation of the various individual indicators) to the highest level (i.e., the aggregation of the three subindices 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 75 individual indicators.

Individual indicators are sourced from various international organisations—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), The World Bank, and United Nations Educational, Scientific and Cultural

Box 2: ASEAN's T&T-related initiatives

Brought to life in 1967, ASEAN was created with the aim of accelerating economic growth, fostering social and cultural development, and promoting peace and stability in the region. While retaining its basic mission, the grouping has evolved over time, in terms of both membership and scope. The five original signatories were Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Five other members joined much later: Brunei Darussalam (in 1984), Vietnam (in 1995), Lao PDR, Myanmar (both in 1997), and Cambodia (1999).

Since its creation, economic integration has been a key objective of ASEAN and is embedded in the agreement of 2003 on the ASEAN Community (AC). The AC consists of three pillars: (1) the ASEAN Political-Security Community; (2) the ASEAN Economic Community (AEC); and (3) the ASEAN Socio-Cultural Community.¹

The potential of tourism as a major socio-economic driver of the region's development and integration was acknowledged early on. The ASEAN Tourism Association, a not-for-profit body regrouping national tourism organisations and other actors in the sector, was created already in 1971. And in 1976, the ASEAN Secretariat established the ASEAN Sub-Committee on Tourism. The reason for joining forces in developing the T&T sector is, in part, the nature of the issues related to it. For instance, issues like promotion, connectivity, environmental protection, and mobility greatly benefit from regional cooperation.

Initially, efforts mostly focused on promoting ASEAN as a single tourist destination, typically through joint marketing campaigns. Over the past decade, efforts have multiplied and intensified to extend beyond promotion. In 2002, ASEAN member countries signed the ASEAN Tourism Agreement, whose objectives were: (1) to cooperate in facilitating travel into and within ASEAN; (2) to enhance cooperation in the tourism industry among member countries in order to improve its efficiency and competitiveness; (3) to substantially reduce restrictions to trade in T&T services; (4) to establish an integrated network of T&T services in order to maximize complementarity among the region's tourist attractions; (5) to enhance the development and promotion of ASEAN as a single tourist destination; (6) to enhance mutual assistance in human resource development and to strengthen cooperation in developing, upgrading and expanding T&T facilities and services in ASEAN; and (7) to create favorable conditions for the public and private sectors to engage more deeply in tourism development, intra-ASEAN travel, and investment in tourism services and facilities.

In 2004, as a further indication of the importance of the T&T sector for ASEAN, member countries adopted the

ASEAN Framework Agreement for the Integration of Priority Sectors, which identified the air travel and tourism sectors as two of the 12 priority sectors that will hasten realization of the AC.²

In 2011, ASEAN adopted its Tourism Strategic Plan 2011-2015 with a renewed vision for T&T:

By 2015, ASEAN will provide an increasing number of visitors to the region with authentic and diverse products, enhanced connectivity, a safe and secure environment, increased quality of services, while [...] ensuring an increased quality of life and opportunities for residents through responsible and sustainable tourism development.³

The Strategic Plan identifies three strategic goals: (1) developing experiential and innovative regional products and creative marketing and investment strategies; (2) increasing the quality of human resources, services, and facilities in the region; and (3) enhancing and accelerating travel facilitation and ASEAN connectivity.

In parallel, individual countries' governments and national tourism offices pursue their own efforts. For instance, tourism is one of the 12 National Key Economic Areas at the center of Malaysia's efforts to become a high-income nation by 2020. There are also regional efforts, such as the Mekong Tourism Initiative, in which some ASEAN member countries partake.⁴ Other initiatives, though not T&T specific, directly benefit the sector, including the Master Plan on ASEAN Connectivity, the ASEAN Strategic Transport Plan 2011-2015, and several agreements on services liberalization. The ultimate objective of all these initiatives is realization of the AC.

Notes

- 1 ASEAN Secretariat 2010a.
- 2 The other sectors are agro-based products; automotives; e-ASEAN; electronics; fisheries; healthcare; rubber-based products; textiles and apparels; wood-based products; and logistics (added in 2006).
- 3 ASEAN Secretariat 2011.
- 4 The initiative supports tourism development in six countries forming the Greater Mekong Subregion, Cambodia, Lao PDR, Myanmar, Thailand, Vietnam (all ASEAN members), and the Chinese Province of Yunnan.

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—some 14,000 in 2011—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.⁶

PERFORMANCE OF ASEAN COUNTRIES IN THE TTCI 2011

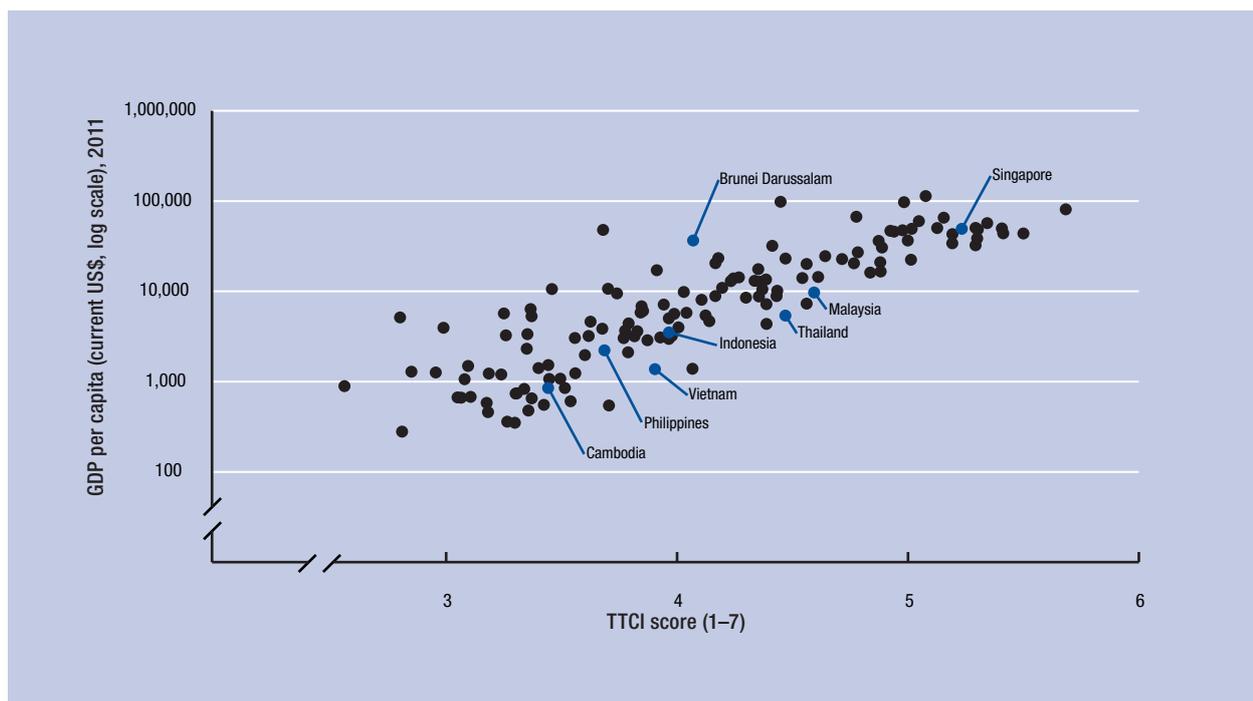
The assessment of ASEAN member countries in the TTCI 2011 draws a very mixed picture of the region. Singapore (10th), Malaysia (35th), Thailand (41st), Brunei Darussalam (67th), Indonesia (74th), Vietnam (80th), the Philippines (94th), and Cambodia (109th) span almost the entire range of the 139 economies covered by the TTCI (see Table 2), which continues to be led by Switzerland.⁷ With only three countries featured in the top 50 of the TTCI, the T&T sector in ASEAN undoubtedly faces a number of challenges.

Table 2: The TCI 2011 rankings

Rank (out of 139)	Country/Economy	Score (1–7)	Group*	Rank (out of 139)	Country/Economy	Score (1–7)	Group*
1	Switzerland	5.7	Schengen	71	Albania	4.0	
2	Germany	5.5	Schengen	72	Dominican Republic	4.0	Caribbean
3	France	5.4	Schengen	73	Georgia	4.0	
4	Austria	5.4	Schengen	74	Indonesia	4.0	ASEAN
5	Sweden	5.3	Schengen	75	Egypt	4.0	
6	United States	5.3		76	Macedonia, FYR	4.0	
7	United Kingdom	5.3		77	Colombia	3.9	
8	Spain	5.3	Schengen	78	Morocco	3.9	
9	Canada	5.3		79	Trinidad and Tobago	3.9	Caribbean
10	Singapore	5.2	ASEAN	80	Vietnam	3.9	ASEAN
11	Iceland	5.2	Schengen	81	Sri Lanka	3.9	SAARC
12	Hong Kong SAR	5.2		82	Serbia	3.9	
13	Australia	5.2		83	Azerbaijan	3.8	
14	Netherlands	5.1	Schengen	84	Namibia	3.8	
15	Luxembourg	5.1	Schengen	85	Ukraine	3.8	
16	Denmark	5.0	Schengen	86	Guatemala	3.8	
17	Finland	5.0	Schengen	87	Ecuador	3.8	
18	Portugal	5.0	Schengen	88	Honduras	3.8	
19	New Zealand	5.0		89	Cape Verde	3.8	
20	Norway	5.0	Schengen	90	Armenia	3.8	
21	Ireland	5.0		91	Botswana	3.7	
22	Japan	4.9		92	Gambia, The	3.7	
23	Belgium	4.9	Schengen	93	Kazakhstan	3.7	
24	Cyprus	4.9		94	Philippines	3.7	ASEAN
25	Estonia	4.9	Schengen	95	Kuwait	3.7	GCC
26	Malta	4.9	Schengen	96	El Salvador	3.7	
27	Italy	4.9	Schengen	97	Bosnia and Herzegovina	3.6	
28	Barbados	4.8	Caribbean	98	Guyana	3.6	Caribbean
29	Greece	4.8	Schengen	99	Moldova	3.6	
30	United Arab Emirates	4.8	GCC	100	Nicaragua	3.6	
31	Czech Republic	4.8	Schengen	101	Mongolia	3.6	
32	Korea, Rep.	4.7		102	Rwanda	3.5	
33	Slovenia	4.6	Schengen	103	Kenya	3.5	
34	Croatia	4.6		104	Senegal	3.5	
35	Malaysia	4.6	ASEAN	105	Syria	3.5	
36	Montenegro	4.6		106	Venezuela	3.5	Caribbean
37	Taiwan, China	4.6		107	Kyrgyz Republic	3.4	
38	Hungary	4.5	Schengen	108	Ghana	3.4	
39	China	4.5		109	Cambodia	3.4	ASEAN
40	Bahrain	4.5	GCC	110	Tanzania	3.4	
41	Thailand	4.5	ASEAN	111	Zambia	3.4	
42	Qatar	4.4	GCC	112	Nepal	3.4	SAARC
43	Mexico	4.4		113	Algeria	3.4	
44	Costa Rica	4.4		114	Iran, islamic rep.	3.4	
45	Puerto Rico	4.4	Caribbean	115	Uganda	3.4	
46	Israel	4.4		116	Swaziland	3.4	
47	Tunisia	4.4		117	Bolivia	3.3	
48	Bulgaria	4.4		118	Tajikistan	3.3	
49	Poland	4.4	Schengen	119	Zimbabwe	3.3	
50	Turkey	4.4		120	Benin	3.3	
51	Latvia	4.4	Schengen	121	Malawi	3.3	
52	Brazil	4.4		122	Ethiopia	3.3	
53	Mauritius	4.4		123	Paraguay	3.3	
54	Slovak Republic	4.4	Schengen	124	Libya	3.2	
55	Lithuania	4.3	Schengen	125	Pakistan	3.2	SAARC
56	Panama	4.3		126	Cameroon	3.2	
57	Chile	4.3		127	Madagascar	3.2	
58	Uruguay	4.2		128	Mozambique	3.2	
59	Russian Federation	4.2		129	Bangladesh	3.1	SAARC
60	Argentina	4.2		130	Nigeria	3.1	
61	Oman	4.2	GCC	131	Côte d'Ivoire	3.1	
62	Saudi Arabia	4.2	GCC	132	Burkina Faso	3.1	
63	Romania	4.2		133	Mali	3.0	
64	Jordan	4.1		134	Timor-Leste	3.0	
65	Jamaica	4.1	Caribbean	135	Lesotho	3.0	
66	South Africa	4.1		136	Mauritania	2.8	
67	Brunei Darussalam	4.1	ASEAN	137	Burundi	2.8	
68	India	4.1	SAARC	138	Angola	2.8	
69	Peru	4.0		139	Chad	2.6	
70	Lebanon	4.0					

* See analysis in Box 3.

Figure 2: TTCI score and GDP per capita



Sources: World Economic Forum; IMF World Economic Outlook (April 2012).

To put those results in perspective, one must first highlight that the TTCI rankings continue to be dominated by advanced economies.⁸ In the 2011 rankings, the first 34 countries—and 41 of the top 50—are advanced economies, including Singapore, the only ASEAN member to belong to that group. This is driven by the fact that advanced economies, on average, fare significantly better in most areas of the TTCI, including hard and soft infrastructures, regulatory framework, security, and public health. These factors are not just drivers of T&T competitiveness. They benefit all sectors, boost productivity, and accelerate economic development. Hence the close relationship between T&T competitiveness and prosperity, illustrated in Figure 2.

However, there are some dimensions of the TTCI that are very weakly, if at all, correlated with income, including the affinity for T&T, natural heritage, and the decision of a government to prioritize T&T.⁹ Further, price competitiveness is slightly negatively correlated.¹⁰ For these reasons, judgment is required when interpreting and comparing the results. In particular, in some areas, comparisons are more relevant if made between countries at a similar stage of development.

Seen in this light, Malaysia's performance at 35th is strong. As the top-ranked developing country, it *de facto* leads the developing Asia region, just ahead of China (39th) and Thailand (41st). Among the 14 developing Asian economies covered by the TTCI, all seven ASEAN members feature in the top 10 alongside China, India (68th), and Sri Lanka (81st). Nepal (112th), Pakistan (125th), Bangladesh (129th) and Timor-Leste (134th) all

place behind Cambodia, ASEAN's worst performer. As for Singapore, it is the best-performing advanced economy outside Europe and North America. It leads the Asian Tigers, ahead of Hong Kong (12th)—which posts a similar performance—Korea (32nd), and Taiwan, China (37th). It also precedes Australia (13th), New Zealand (19th), and Japan (22nd).

A more granular analysis at the pillar level is required to understand the reasons for the mixed performance of ASEAN countries in the TTCI. The upper section of Table 3 reports the ranks out of 139 economies of ASEAN countries across the 14 pillars. The lower section of that table shows their scores on a 1-to-7 scale. In both sections, the color scheme readily identifies those areas of relative strength (white-shaded cells) and weakness (red-shaded cells), while a light-brown shade indicates an average performance (i.e., around the median).

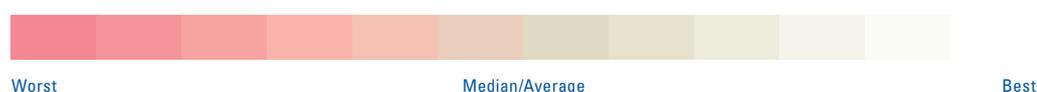
Table 3 reveals the extent of Singapore's lead in the region. It tops ASEAN in all pillars of the TTCI, bar *price competitiveness*, led by Brunei Darussalam, and *natural resources*, led by Indonesia.¹¹ Despite its small size and the quasi-absence of natural resources, the city-state has established itself as a major business and tourist destination. It has positioned itself as a gateway to Asia and Oceania, a venue for large-scale events, and a world-class shopping destination, thanks to its excellent infrastructure, very conducive investment climate, an educated pool of talent, and openness.¹² Singapore draws 20 times more tourists per capita and 30 times more receipts per capita than the ASEAN average.

Table 3: Performance of ASEAN countries in the TTCI

Pillars	Rank (out of 139 economies)								ASEAN (median)
	Singapore	Malaysia	Thailand	Brunei Darussalam	Indonesia	Vietnam	Philippines	Cambodia	
TTCI 2011	10	35	41	67	74	80	94	109	75
1. Policy rules and regulations	1	21	76	120	88	67	70	132	73
2. Environmental sustainability	41	64	97	136	127	115	94	82	96
3. Safety and security	13	83	94	23	72	68	109	79	76
4. Health and hygiene	55	75	80	70	115	89	97	133	85
5. Prioritization of Travel & Tourism	2	46	38	127	15	107	70	13	42
6. Air transport infrastructure	14	34	23	41	58	85	80	113	50
7. Ground transport infrastructure	2	36	56	49	82	77	114	103	67
8. Tourism infrastructure	33	74	40	91	116	110	98	131	95
9. ICT infrastructure	20	52	81	47	96	67	98	123	74
10. Price competitiveness	29	3	15	1	4	16	20	31	16
11. Human resources	2	37	74	47	51	72	86	109	62
12. Affinity for Travel & Tourism	12	17	24	78	121	87	65	21	45
13. Natural resources	96	22	21	38	17	51	70	53	45
14. Cultural resources	30	33	32	91	39	36	76	111	38

Pillars	Score (1–7 scale)								ASEAN (average)	TTCI sample*
	Singapore	Malaysia	Thailand	Brunei Darussalam	Indonesia	Vietnam	Philippines	Cambodia		
TTCI 2011	5.2	4.6	4.5	4.1	4.0	3.9	3.7	3.4	4.2	4.1
1. Policy rules and regulations	6.0	5.1	4.4	3.7	4.2	4.4	4.4	3.4	4.4	4.3
2. Environmental sustainability	4.9	4.6	4.2	3.6	3.9	4.1	4.2	4.3	4.2	4.6
3. Safety and security	6.1	4.5	4.4	5.7	4.7	4.8	4.1	4.6	4.9	4.8
4. Health and hygiene	5.2	4.5	4.4	4.7	2.6	4.1	3.8	1.5	3.8	4.5
5. Prioritization of Travel & Tourism	6.4	4.8	4.9	3.3	5.7	4.0	4.5	5.8	4.9	4.5
6. Air transport infrastructure	5.0	4.2	4.5	4.0	3.3	2.7	2.8	2.3	3.6	3.3
7. Ground transport infrastructure	6.6	4.6	4.1	4.2	3.2	3.3	2.8	3.0	4.0	3.9
8. Tourism infrastructure	5.1	3.6	4.9	2.8	2.0	2.1	2.6	1.4	3.1	3.8
9. ICT infrastructure	5.2	3.7	2.9	3.9	2.5	3.2	2.5	1.9	3.2	3.4
10. Price competitiveness	5.1	5.6	5.2	5.8	5.6	5.2	5.2	5.1	5.3	4.6
11. Human resources	6.1	5.2	4.8	5.1	5.0	4.9	4.7	4.3	5.0	4.8
12. Affinity for Travel & Tourism	5.7	5.4	5.3	4.5	4.2	4.5	4.6	5.3	4.9	4.7
13. Natural resources	2.6	4.5	4.6	4.0	4.7	3.6	3.3	3.5	3.9	3.3
14. Cultural resources	3.9	3.8	3.9	1.8	3.5	3.6	2.2	1.6	3.0	2.9

* Average score of the 139 economies covered in the TTCI.



Box 3: Performance of ASEAN and selected country groups in the TTCI

This brief comparative analysis between the group performance of ASEAN and other relevant country groupings (see Table 2 for composition) provides a sense of the region's comparative strengths and weaknesses.¹

Like ASEAN, the South Asian Association for Regional Cooperation (SAARC) aims to develop cross-border tourism to accelerate its economic development and promote regional integration. SAARC comprises Bangladesh, India, Nepal, Pakistan, Sri Lanka, and three countries not covered by the TTCI, namely Afghanistan, Bhutan, and the Maldives. SAARC borders the ASEAN region (India and Bangladesh share a border with Myanmar), and both regions display some similarities: SAARC is exclusively composed of developing Asian nations and boasts abundant cultural, historical, and natural heritages. It is arguably even more diverse than ASEAN, with two Himalayan countries, as members.

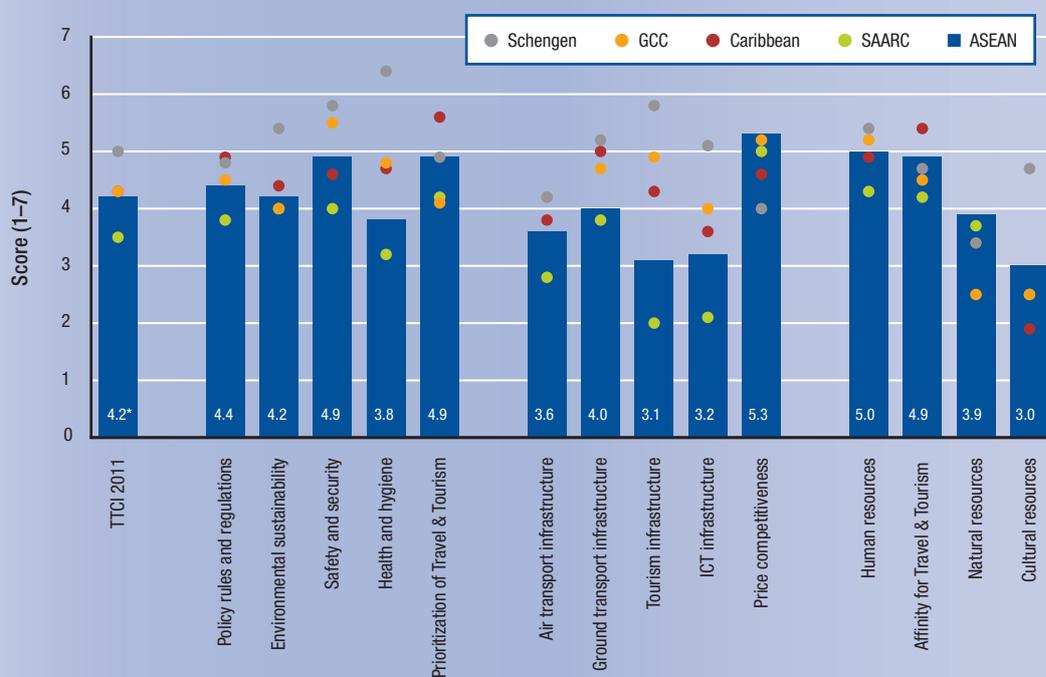
So far, SAARC's strategy for tourism development does not seem to have lived up to expectations.² The T&T sector remains comparatively small, accounting for just 2.1 percent of GDP, less than half the share in ASEAN.³ In 2010, the entire SAARC region attracted 12.4 million visitors, half the number registered by Malaysia alone, and about six times less than ASEAN overall, despite being twice as large.⁴ India, SAARC's most popular destination, recorded roughly as many arrivals as Vietnam, ASEAN's 5th largest recipient.

The TTCI points to areas that might explain this mediocre tourism performance. SAARC's average is below that of ASEAN in the overall TTCI—a difference of 0.7 point—as well as in each of the 14 pillars (see Figure 3.A). The gap is particularly wide in the areas of tourism infrastructure, ICT infrastructure, and safety and security. This provides no reason for complacency, given SAARC's poor performance, but these results suggest that the T&T sector in ASEAN is significantly more attractive to invest in and to develop than that of a comparable grouping.

Though significantly smaller and geographically less diverse, the Caribbean attracts annually some 20 million tourists and business travelers. The T&T sector directly accounts for 4.5 percent of the region's GDP. The region benefits from the proximity of large developed and emerging markets, including the United States, Canada, Brazil, Mexico, and Colombia. The Caribbean Tourism Organization (CTO) regroups 32 countries and territories in the Caribbean and South America. CTO has as its objective "the development of sustainable tourism for the economic and social benefit of Caribbean people."

The TTCI covers only five Caribbean economies, namely Barbados (28th), Puerto Rico (45th), Jamaica (65th), the Dominican Republic (72nd), and Trinidad and Tobago (79th), which together accounted for more than half of all arrivals

Figure 3.A: Performance of ASEAN and selected country groups in the TTCI 2011



Note: See Table 2 for group compositions.
* ASEAN score.

(Cont'd.)

Box 3: Performance of ASEAN and selected country groups in the TTCl (cont'd.)

to the region in 2010. ASEAN trails this subset by a narrow margin in the overall TTCl. Yet, the drivers of competitiveness differ greatly between the two regions. The Caribbean clearly has the advantage in the pillars related to health and hygiene, prioritization of T&T, ground transport, and ICT infrastructure, while ASEAN leads in terms of price competitiveness, natural resources, and cultural heritage.

The Gulf Cooperation Council (GCC), comprising the United Arab Emirates (UAE, 30th), Bahrain (40th), Qatar (42nd), Oman (61st), Saudi Arabia (62nd), and Kuwait (95th), does marginally better than ASEAN in the overall TTCl. GCC's performance is largely in line with that of the Caribbean. Thus, the strengths and weaknesses vis-à-vis ASEAN tend to be the same. ASEAN is no match for GCC in terms of infrastructure, public health, and safety and security, but leads by an ample margin in terms of cultural and natural heritage.

Finally, we compare ASEAN with the average performance of the European countries forming the Schengen Area.⁵ Schengen operates very much like a single state for international travel, with border controls for travel in and out of the area but no internal border controls. It is such a model that ASEAN aspires to, although in terms of visa requirements, ASEAN countries are much more permissive to third countries (see Box 3). The top five countries in the TTCl—Switzerland, Germany, France, Austria, and Sweden—all belong to the Schengen Area; and 22 of its members feature in the top 50. Because of its structure and the strong

performance of its members, the Schengen Area represents a relevant benchmark for ASEAN. As seen in Figure 3.A, ASEAN lags behind in most dimensions of the Index, particularly in the areas of cultural resources (2.2 points lower than Schengen), health and hygiene (-1.6), and environmental sustainability (-1.4). The only pillar where ASEAN is ahead is price competitiveness (+1.2).

Notes

- 1 All four regions discussed here exhibit great internal disparities. The same caveats that apply to ASEAN—about group scores and ranks concealing these disparities—therefore apply when making comparisons across groups.
- 2 See de Alwis 2010 for a review of SAARC's efforts to promote tourism.
- 3 WTTC 2012. Among the 12 regions of WTTC classification, South Asia is where the contribution of T&T is estimated to be the smallest. Yet, WTTC predicts that it is where growth will be fastest in the next decade.
- 4 All tourism figures cited in this paragraph are from UNWTO 2012.
- 5 A member of the Schengen Area, Lichtenstein is not covered in the TTCl.

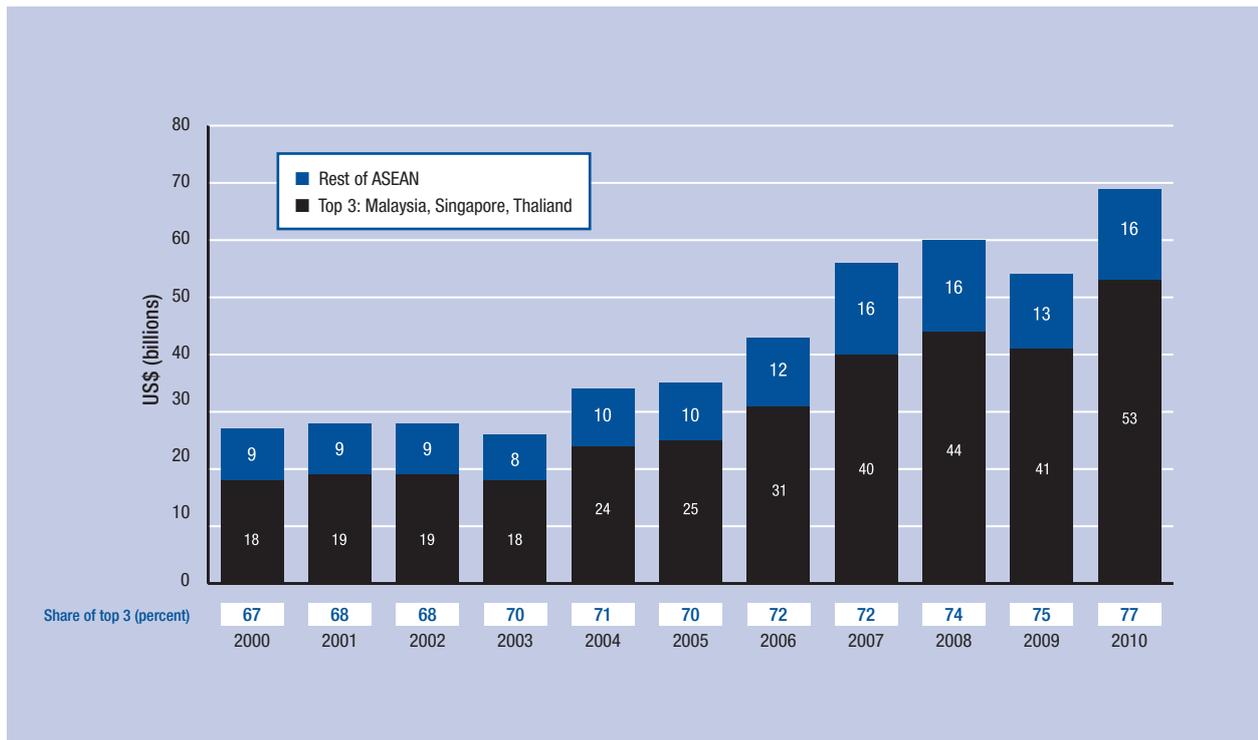
Second, Cambodia and the Philippines trail the rest of the region, which is reflected in their performance on individual pillars of the TTCl. Cambodia is the poorest-performing ASEAN country in seven pillars of the Index. The Philippines ranks no higher than 65th in 13 pillars. Third, Malaysia and Thailand do comparatively well across the board despite a few dark spots. Other countries deliver very mixed results across the different pillars. For instance, Indonesia exhibits a very varied performance, with clear strengths in price competitiveness, natural heritage, and T&T prioritization, as well as pronounced shortcomings related to environmental sustainability, health and hygiene, and infrastructure. Brunei Darussalam also alternates between positive and negative outcomes—it is inexpensive and safe but presents one of the worst environmental performances among the 139 economies studied.

Finally, some commonalities do exist across the region. Shared strengths include the prioritization of T&T and price competitiveness. Common weaknesses include the poor state of transport and tourism-related infrastructures (with the notable exception of Singapore), a worrisome sanitary situation in large parts of the region, and rather poor environmental performance. Overall, however, the patchwork of different shades in Table 3 underscores the profound disparities that persist within the region.

Given ASEAN's ambition to position itself as a single tourist destination, we also assess the region's average performance, stressing that average scores and median ranks necessarily conceal the disparities highlighted above. The rightmost column of the upper section of Table 3 reports the median rank of ASEAN countries and the two columns on the very right of the lower section report the average scores for ASEAN and the entire sample, respectively.¹³ At the regional level, the areas of weakness are environmental sustainability, health and hygiene, tourism infrastructure, and ICT infrastructure, while the strengths include price competitiveness, affinity for T&T, and prioritization of T&T. Natural resources and cultural heritage also constitute areas of relative strength. Despite low average scores in these two categories, ASEAN does better than the average performance of the full sample of 139 countries covered by the Index. To complement this brief overview, Box 3 compares the performance of ASEAN against other relevant country associations.

The heterogeneity among ASEAN countries is of concern, given their goal of becoming a unified tourist destination. While ASEAN can turn the cultural, natural, ethnic, and economic diversity of its members into an advantage for tourism promotion, the severe shortcomings of certain of its members in a number of areas critical to the industry are worrisome. Visitors may be drawn to the region for its diversity but deterred

Figure 3: Trends in international tourism receipts in ASEAN



Source: Authors' calculations and estimates based on UNWTO 2012.

from visiting places that are unsafe, not well connected, or deficient in tourism infrastructure. Similarly, investors in the T&T sector can be attracted to ASEAN for its strategic location, great economic potential, and political will to develop the sector, yet they may shy away from places that do not provide a conducive regulatory and business environment, a reasonable infrastructure, or a pool of skilled workers.

The risk is that the most competitive and most popular destinations in the region—Singapore, Malaysia, and Thailand—may end up capturing a growing share of new visitors and investments to the region, leading to a deepening of the disparities. This would undermine the vision of the ASEAN Economic Community, and in particular one of its four core objectives, which is to create a region of “equitable economic development.”¹⁴ Signs of such divergence can already be observed. Figure 3 shows the evolution of tourism receipts in ASEAN between 2000 and 2010. Over that period, the share of Malaysia, Singapore, and Thailand—the three largest recipients—increased from 67 percent to 77 percent. These countries’ receipts trebled, while they doubled in the rest of ASEAN. ASEAN must address the disparities among its member nations as part of its larger development and integration efforts.

The remainder of the analysis reviews the performance of individual ASEAN countries on each pillar. As each and every individual indicator of the TTCI is not reviewed, the scorecard in Appendix A presents the ranks and scores of ASEAN countries in all the components of the TTCI, including the 75 indicators.

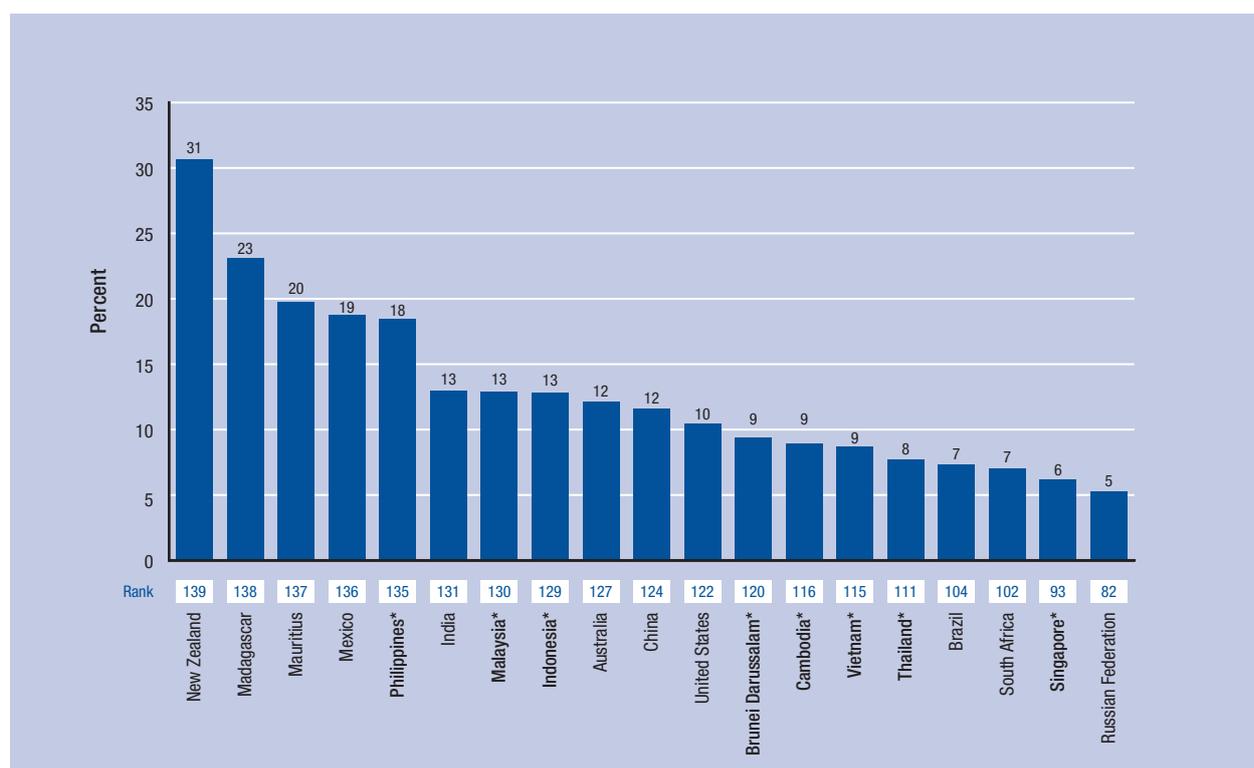
Pillar 1: Policies and regulations

Governments can have an important impact on the attractiveness of developing the T&T sector, depending on whether the policies they create and perpetuate support or hinder the sector’s development. This pillar captures the extent to which the policy framework is conducive to the sector’s development. It comprises a number of indicators, which capture the extent to which foreign ownership and foreign direct investment (FDI) are welcomed and facilitated by the country; the protection of property rights; the ease of starting a business; visa requirement stringency; the openness of bilateral Air Service Agreements; and commitments under the Global Agreement on Trade in Services (GATS) to opening T&T services.

In this pillar, Singapore is second to none among the 139 economies (see Table 3 and Appendix A). It *de facto* sets the benchmark for the other countries of ASEAN, only two of which, Malaysia (21st) and Vietnam (67th), feature in the top half of the ranking. The transparency, clarity, and efficiency of Singapore’s legal framework underpin the entire economy. Indeed, other, more granular assessments of similar criteria conducted by the World Economic Forum consistently place Singapore on top.¹⁵

The lowest-ranked ASEAN country, Cambodia, comes in at an alarmingly low 132nd. It takes 85 days to start a business (132nd) there, and the set-up costs are equivalent to 128 percent of the average national income (129th). Further, the country ranks 125th for transparency, or lack thereof, in policymaking. These

Figure 4: Percent of animal species threatened in selected countries



Source: IUCN, Red List of Threatened Species 2010.
* Denotes ASEAN member country

institutional shortcomings can undermine a government's best efforts to develop a sector through specific supporting policies and measures, as reflected in the high marks earned for two T&T-related indicators of this pillar, namely visa requirements (15th) and commitments to T&T liberalization under GATS (39th), as well as in the government's prioritization of the sector (see below).

Cambodia's dichotomous performance is symptomatic of the situation across most of ASEAN, with the exception of Singapore. On the one hand, most countries spare no efforts in developing their T&T sector. On the other hand, the institutional framework for doing business there remains difficult. ASEAN countries rank, on average, significantly higher on those indicators in this pillar that are specific to the tourism sector than on indicators of the general business environment.¹⁶ Box 4 looks in more detail at the visitor visa, a key element of ASEAN's T&T strategy. To boost their T&T performance, however, ASEAN countries will need to improve performance in other compartments of their institutional framework.

Pillar 2: Environmental sustainability

Policies and factors enhancing environmental sustainability are crucial for ensuring that a country will continue to be an attractive destination going into the future. The second pillar of the TTCI measures the stringency of environmental regulations in each country, as well as the extent to which they are actually enforced. Given the negative environmental impact that tourism can sometimes bring about, the pillar also takes into

account the extent to which governments prioritize the sustainable development of the T&T sector in their respective economies. In addition to policy inputs, this pillar incorporates some of the related environmental outputs, including carbon dioxide emissions and the proportion of the country's species that are endangered.

From a T&T perspective, environmental sustainability is of paramount importance for ASEAN countries, which derive part of their tourism attractiveness from their extraordinary and unique natural heritage, as reflected in their excellent standings in the *natural resources* pillar (see below). It is therefore worrisome that ASEAN countries perform so poorly in this dimension (see Table 3 and Appendix A). Best-ranked Singapore is only 41st, and Malaysia (64th) is the only other country featured in the top half of the pillar ranking. The Philippines (94th), Thailand (97th), Vietnam (115h), and Indonesia (127th) rank near or below the 100th mark, while Brunei Darussalam (136th) ranks nearly last. In a majority of ASEAN countries, environmental protection has not emerged as a key priority. Not only is environmental regulation perceived as rather lax across the region, but regulations also are not rigorously enforced.

According to some measures, the environmental situation in the region is deteriorating. In the Philippines, one in five species of animals is threatened, and 13 percent in Malaysia and Indonesia (see Figure 4).¹⁷ In Brunei Darussalam, Cambodia, Vietnam, and Thailand, almost one in ten species is threatened.

Box 4: ASEAN's single visa program and visa requirements

Facilitating the movement of people within ASEAN has long been seen as an important factor of integration. To date, while great progress has been achieved in facilitating the movement of ASEAN nationals within the region, the community lags behind when it comes to non-ASEAN citizens.

In 2006, the ten ministers of foreign affairs of ASEAN signed the Framework Agreement on Visa Exemption. Visa exemption for ASEAN nationals is an important step for the T&T sector, as intra-ASEAN tourism accounts for half of all international tourist arrivals in the region. Under this scheme, member countries “shall exempt citizens of any other Member States holding valid national passports from visa requirement for a period of stay of up to 14 days,” provided the purpose of the stay is to visit.¹ The goal is that, by 2015, all member countries will have signed a visa exemption agreement with all their fellow members. As of May 2012, all ASEAN members except Myanmar and Cambodia have implemented this measure. Cambodia still requests visitors to obtain a visa-on-arrival (VOA), while Myanmar is to implement a similar VOA scheme as of June 2012.²

As for non-ASEAN nationals, the idea of a single visa has been on the table for a while. Under the common visa program, non-ASEAN nationals would be granted free movement within ASEAN for a limited period of time. The model for ASEAN is the Schengen Area, a common visa program adopted by 26 European countries. Such a program

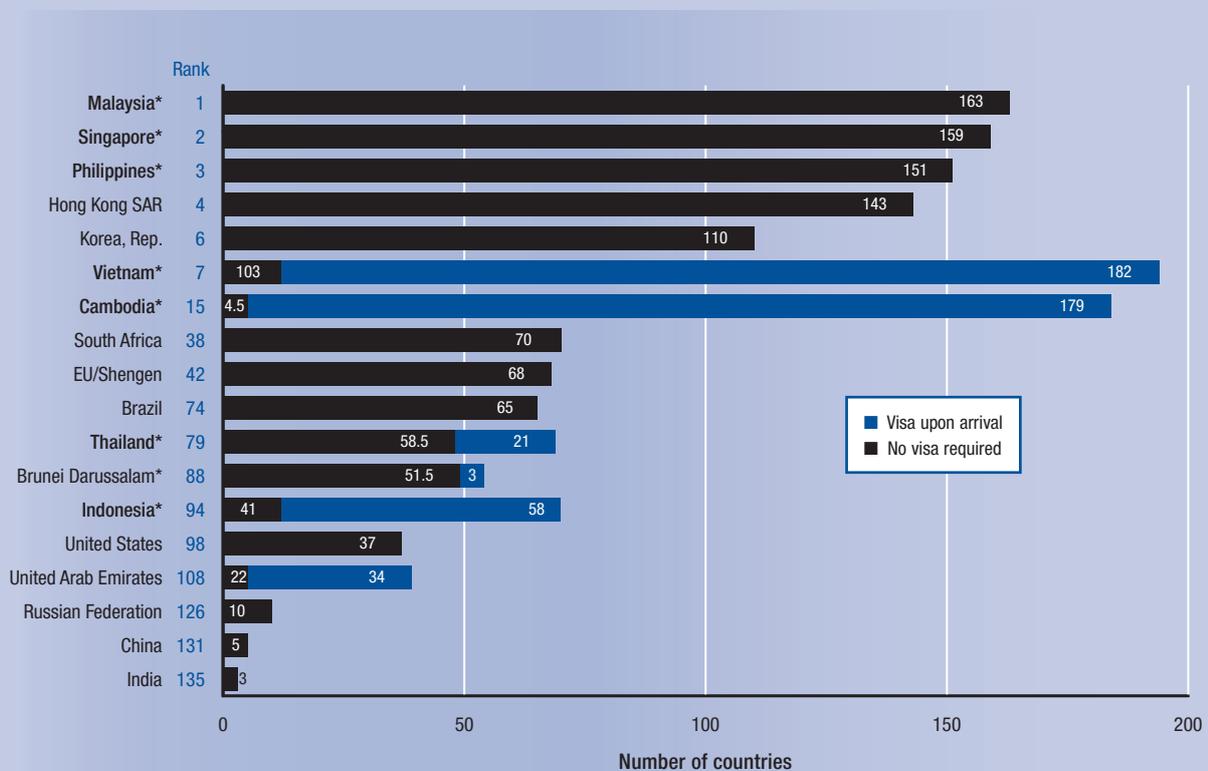
would provide obvious benefits for promoting ASEAN as a destination.

In the mid 2000s, the ambition was still to adopt the single visa program by 2015. But the idea was later dismissed, and the project was not included in the Tourism Strategic Plan 2011-2015.³ The plan mentions this inability to agree, invoking the “barriers of technology, political issues, concerns of sovereignty and security and the different visa systems in the Member States.”⁴ Elsewhere, the loss of revenues generated by visa fees is also cited as a reason.⁵ Against this background, two less ambitious initiatives are being pursued, namely the intra-ASEAN visas and the adoption of an e-visa with simplified and harmonized procedures, both within the 2015 deadline.

While significant, the benefits of a common visa scheme should not be overstated—at least, this should not be seen as the only way to facilitate travel. Individually, countries can do much to make traveling across borders easier, including simplifying application procedures, improving processing times, reducing fees, and extending visa exemption lists.

Indeed, for a very large proportion of travelers to a number of ASEAN countries, visa is already not an issue. Remarkably enough, Malaysia (1st), Singapore (2nd), and the Philippines (3rd) top the visa requirement index computed by UNTWO (see Figure 4.A).⁶ Nationals from 163 nations can

Figure 4.A: Visa Index and visa requirements for selected countries



Source: World Economic Forum, 2011a.

Note: See text for details.

* Denotes ASEAN member country

(Cont'd.)

Box 4: ASEAN's single visa program and visa requirements (cont'd.)

enter Malaysia visa free.⁷ Vietnam (7th) and Cambodia (15th) also rank very high among the 139 economies covered. By contrast, Thailand (79th), Brunei Darussalam (88th), and Indonesia (94th) rank much lower. Yet, even their visa regimes are less restrictive than those in place in Russia (126th), China (131st), and India (135th), which grants visa-free travel to the nationals of only three countries worldwide.

It is important to note that the visa requirement index does not assess the ease of the application process for obtaining a visa prior to departure, so that travelers may experience the situation in two countries with the same index score very differently.

Notes

1 ASEAN Secretariat 2006.

2 "Myanmar offers visa-on-arrival." TTR Weekly. April 30th, 2012.

3 ASEAN 2011. See also Box 2.

4 ASEAN 2011, p.21.

5 "ASEAN working on common visa procedure." Jakarta Post. November 16th, 2012.

6 The visa requirement index score for an economy is based on the visa requirements imposed on the nationals of all countries and territories. In compiling the data, economies whose nationals do not require a visa are assigned one point, and those countries whose citizens can obtain a visa upon arrival are assigned half a point. Those countries whose nationals need a visa prior to departure get zero points. The sum of points produces the country score. The maximum theoretical score is 227 (i.e., the number of countries and territories represented at the United Nations).

7 Malaysia ranks sixth in the overall ranking. The ranking is led by the Cook Islands, where the nationals of a record 195 countries and territories can travel visa-free. The Seychelles, Dominica, and Samoa follow. All these small islands are not covered by the TTCI.

The disappearance of species is largely the result of destruction or degradation of their natural habitats.

The region also underperforms on another measure of environmental performance, fine particles, which pose serious public health hazards in the short run and environmental risks in the long run.¹⁸ Despite encouraging trends, their concentration remains high in half of the ASEAN countries. In Indonesia (68 micrograms per cubic meter), Vietnam (50), Thailand (53), Brunei Darussalam (48), and Cambodia, the concentration remains two to three times higher than the maximum annual average of daily concentration of 20 micrograms set by the European Union. By contrast, the Philippines (17), Malaysia (19), and Singapore (23) present lower levels.

If not addressed promptly and decisively, environmental degradation and pollution will have severe consequences for the attractiveness of ASEAN as a T&T destination. Box 5 presents the findings of a study that aims to assess the economic value of natural resources for T&T and the monetary cost of their destruction or degradation. Too many countries in ASEAN are still neglecting this aspect of their development, despite their repeated commitments at the regional level to developing tourism in a sustainable manner.¹⁹

Pillar 3: Safety and security

Safety and security conditions are well-understood determinants of the competitiveness of a country's T&T sector. Tourists are deterred from traveling to dangerous countries and regions, making it less attractive to develop the T&T sector in those places. This pillar takes into account security issues such as the costliness of common crime, violence, and potential terrorism, as well

as the extent to which police services can be relied upon to provide protection from crime. The pillar also takes into account an important measure of safety, namely, the incidence of road traffic accidents in the country.

ASEAN member countries paint a mixed picture in this pillar (see Table 3 and Appendix A). Singapore ranks 13th, followed by Brunei Darussalam (23rd). The other countries rank much lower, ranging from 68th for Thailand to 109th for the Philippines. However, as the scores in this pillar are generally higher than in many other pillars, a low rank does not necessarily mean that a country is unsafe. Low-ranked Philippines gets a score of 4.1 out of 7.

Overall, the region is safer than a number of destinations in the rest of developing Asia, and most places in Latin America and Africa. The intentional homicide rate, a rough proxy of the degree of violence prevailing in a country, is relatively low among ASEAN countries, ranging from 0.5 homicides per 100,000 population in Singapore to 10.2 in Myanmar. The population-weighted average rate for ASEAN is 5.9 homicides, compared with 25.0 in Central America, 21.0 in South America, 16.8 in Africa, and 3.4 in Europe.²⁰

Of course, the region is not immune to petty crime, especially in large cities, forcing visitors to exert caution and avoid specific places at certain times. This is exacerbated by the perceived unreliability of police services in a number of countries in the region, especially in Cambodia (115th, with a score of 3.2 on a 1-to-7 scale), the Philippines (105th, 3.4), Thailand (87th, 3.8), and Indonesia (80, 4.0).²¹ By contrast, Singapore ranks a close second behind Finland, with a score of 6.4.

Other forms of violence, including riots and terrorist attacks, may occur but are rare and almost never target

Box 5: Assessing the value of biodiversity for tourism

The long-time failure to include the value of the services provided by ecosystems and biodiversity in economic and other decision-making processes is believed to be one of the principal factors leading to the overuse and degradation of such services. The Economics of Ecosystems and Biodiversity (TEEB) study is a recent step towards filling this information gap. It aims to assess the economic, societal, and human value of biodiversity, promoting a better understanding of the true economic value of ecosystem services and offering practical economic tools that take proper account of this value. Because T&T is a biodiversity-dependent industry, it may be the sector that most readily recognizes and incorporates the findings of TEEB. Some of the tourism-related findings of the study include:

- Tourism is a key export for 83 percent of developing countries. For the world's 40 poorest countries, it is the second most important source of foreign exchange, after oil.
- Many tourism businesses are fully or partially dependent on biodiversity and ecosystem services.
- In 2004, the nature and ecotourism market grew three times faster than the tourism industry as a whole.

- Several biodiversity hotspots are experiencing rapid tourism growth: 23 hotspots have seen growth in tourist visits of over 100 percent in the last decade (see Box 7 Hotspots)
- Whale watching alone was estimated to generate US\$2.1 billion in 2008, with over 13 million people undertaking the activity in 119 countries.
- Revenues from diving tourism in the Caribbean (which account for almost 20 percent of total tourism receipts) are predicted to fall by up to US\$300 million per year because of coral reef loss.
- In the Maldives, each gray reef shark was valued at US\$3,300 per year for the tourism industry, in contrast to a one-time take of US\$32 for the fishing industry.
- In the United States in 2006, private spending on wildlife-related recreational activities (e.g., hunting, fishing, and observing wildlife) amounted to US\$122 billion, or just under 1 percent of GDP.

References

Marton-Lefèvre and Borges 2011.

tourists. However, the memory of the attacks against tourists in Bali persists. The first attack took place in 2002 and killed 202 people, mostly foreigners.²² The second attack occurred in 2005 and killed 25 people, again mostly tourists. However, in recent decades, only three other attacks resulted in tourist fatalities, one in Lao PDR in 2003 (10 deaths) and two in the Philippines (six deaths in total).

That being said, terrorism in ASEAN countries is an issue, and some 480 incidents were recorded in the region in 2010. Indeed, the results of the Forum's Executive Opinion Survey reveal that the threat of terrorism has some consequences for businesses from the region. ASEAN's lowest-ranked country, the Philippines, ranks 126th. However, the score of 4.4 (on a 1-to-7 scale) reveals that the situation is much better than in the three worst-performing countries, namely Colombia (score of 2.5), Pakistan (2.9), and Nepal (3.4).

Any manifestation of violence can potentially damage a country's image and have a major impact on tourism, as fear can lead tourists and travelers to cancel, postpone, or change their plans. Also, governments are often quick at issuing travel warnings in case of violence, unrest, or risk thereof.²³ These recommendations tend to be followed by individual travelers, tour operators, and travel agents. For instance, the protests in Thailand in early 2010, which culminated in violent confrontations in Bangkok in May, had a major, though short-lived, impact on tourism. It is important that ASEAN countries pursue efforts to improve safety and security within

their territories. Of course, this benefits not just the T&T sector, but the overall investment climate and, indeed, the entire society.

Pillar 4: Health and hygiene

A country's level of health and hygiene is also essential for T&T competitiveness. For example, access to improved drinking water and sanitation is important for the comfort and health of travelers. And, in the event that tourists do become ill, the country's health sector must be able to ensure they are properly cared for, as measured by the availability of physicians and hospital beds.

In this pillar, Singapore, once again ASEAN's best-performing country, ranks 55th in international comparison, but its score of 5.2 reveals that health and hygiene do not represent a serious shortcoming (see Table 3 and Appendix A).²⁴ By contrast, the situation is worrisome in Cambodia, which ranks a dismal 133rd. Its score of 1.5 means that the country gets nearly the lowest mark in each of the four indicators comprising this pillar. Indonesia (115th, with a score of 2.6) also displays troublesome results across the board, while the Philippines (97th, 3.8) and Vietnam (89th, 4.1) likewise present serious shortcomings. In these four countries, access to safe drinking water is not yet universal; it is a distant prospect in Cambodia, where nearly 40 percent of the population lacks access. The situation evokes even more concern with respect to access to improved sanitation: less than 30 percent of the population in

Cambodia has access to it, just over half in Indonesia, and only around 75 percent in the Philippines and Vietnam.

Poor health and hygiene standards, coupled with a hot and humid climate and the remoteness of certain places, results in a high prevalence of communicable diseases in vast swaths of the ASEAN territory. For example, up to 90 percent of Cambodia's population has been exposed to hepatitis. Dengue fever is on the rise, and ASEAN is the region most affected by this disease, alongside the Western Pacific region. The incidence of malaria remains high in Cambodia and Indonesia, and the disease remains endemic elsewhere, except in Singapore and Brunei Darussalam. Tuberculosis incidence is very high in Cambodia and the Philippines; it is elevated in Vietnam, Thailand, and Indonesia; and moderate in Malaysia, Brunei Darussalam, and Singapore.

Finally, health care infrastructure remains underdeveloped in several countries, and access to it is difficult, often owing to the region's geography, particularly in Indonesia and the Philippines, the world's two largest archipelagos. For every 10,000 people in Cambodia, there is only one hospital bed (the third lowest count in the sample) and 1.6 physicians, compared with 32 beds and 15 physicians in Singapore. Other countries are within this range on both measures, except Indonesia, which sets the low mark for physician density with 1.3 doctors per 10,000 population. Such poor results mean that traveling to areas outside the main tourist attractions raises some health concerns, especially in Cambodia and the Philippines.

Pillar 5: Prioritization of travel and tourism

The extent to which the government prioritizes the T&T sector also has a significant impact on a country's T&T competitiveness. By making clear that T&T is a priority sector, and by reflecting this in its budget, a government can channel needed funds to essential development projects. Signaling its intentions can also have positive spill-over effects, such as attracting private investment into the sector. Prioritization of the sector can be reflected in a variety of ways, such as government efforts to collect and make available T&T data on a timely basis and to commission high-quality destination-marketing campaigns.

As discussed in Box 3, ASEAN countries score relatively high on this pillar, despite the disappointing performance of a few member countries (see Table 3 and Appendix A). Singapore ranks second overall, followed by Cambodia (13th) and Indonesia (15th). The degree of prioritization is also high in Thailand (38th) and Malaysia (46th). However, the performances of the Philippines (70th), Vietnam (107th), and Brunei Darussalam (127th) are rather disappointing.

Government prioritization of T&T tends to be high across ASEAN. Singapore ranks 6th on this particular measure, achieving a nearly perfect score (6.6 out of 7). Thailand (16th, 6.3) and Malaysia (25th, 6.1) follow closely. Brunei Darussalam, the poorest-performing ASEAN country, scores a still relatively strong 5.2. The

fact that the country ranks only 79th reveals how much of a priority T&T is for most governments around the world. It is important to stress that this indicator gauges *intent* and not necessarily *success*.²⁵ The vision the government formulates is not necessarily followed up by concrete measures.

Tourism promotion has always been a cornerstone of ASEAN's T&T strategy. The effectiveness of tourism marketing campaigns is captured by an indicator derived from the Executive Opinion Survey. Singapore once again leads the group, placing 4th with a score of 6.1 out of 7. Malaysia (15th, 5.5) and Thailand (20th, 5.5) also stand out positively. Efforts are perceived as less successful in Cambodia (52nd, 4.8), Indonesia (58th, 4.6), Brunei Darussalam (61st, 4.6), and Vietnam (62nd, 4.5). The Philippines clearly lags behind at 99th position with a middling score of 3.8.

Performance is less compelling with regard to actual government spending on T&T. These expenditures comprise transfers or subsidies to provide T&T-related services such as culture (e.g., art museums), recreation (e.g., national parks), and clearance (e.g., immigration). They account for about 10 percent of total government expenditures in Singapore (8th), Cambodia (10th), and Indonesia (13th). The share drops to 3.6 percent in the Philippines (63rd) and 2.7 percent in Thailand (85th) and accounts for less than 2 percent of government expenditures in the other countries.²⁶

Pillars 6–7: Air and ground transportation and connectivity

Physical infrastructure plays a critical role in promoting economic development, inclusive growth, and regional integration, by improving a country's productivity, connectivity, accessibility, and attractiveness. Yet, infrastructure represents one of the biggest challenges faced by ASEAN countries, owing to years of under-investment and a lack of planning in the context of rapid economic growth.²⁷ The geography and geology of Southeast Asia make matters worse, as do the region's frequent natural disasters. This situation undermines ASEAN's integration efforts. Poor infrastructure is often cited as one of the chief reasons behind the stagnation of intra-ASEAN trade and the lack of progress in creating a regional production base. It also exacerbates regional disparities instead of reducing them, as investment tends to go to areas providing an adequate infrastructure basis and away from those exhibiting an infrastructure deficit.

Quality infrastructure benefits not only the T&T sector, but the entire economy and, indeed, society at large. The TCI focuses on those aspects most critical to the T&T sector, namely air transportation (Pillar 6) and ground transportation (Pillar 7), tourism-specific infrastructure (Pillar 8), and information and communications technologies (ICT) infrastructure (Pillar 9). Transportation is particularly essential, for it provides access to and from countries and facilitates movement within them, linking cities, sites, and other attractions.

With the exception of Singapore, the state of infrastructure in ASEAN varies from satisfactory to bleak. Table 3 and the comparative analysis across

Box 6: Air connectivity in ASEAN

Air connectivity is a necessary complement to other modes of transport in ASEAN, given the geography and size of the region, the state of ground transportation, and travelers' demand for efficient and rapid connections. A country's connectivity depends on the quality and density of its domestic and international networks. Pillar 6 of the TTCI includes a number of indicators assessing the quality of such networks, namely number of airlines operating in a country, number of departures, and domestic and international available seat-kilometers (ASKs).¹

ASEAN countries present a very mixed picture on these different measures.² Singapore, Malaysia, and Thailand are home to three of the largest hubs in Asia (i.e., Changi Airport, Kuala Lumpur, and Bangkok). These countries have the largest number of operating airlines, the most international ASKs, and the most departures per 100 population (after Brunei Darussalam). Indonesia, Vietnam, and the Philippines, on the other hand, post mediocre results in most indicators, while Cambodia is the region's worst performer, ranking near or below the 100th place in all indicators.

These measures do not give a complete picture of the state of intra-ASEAN connectivity, though. To complement the analysis, Table 6.A reports the number of non-stop routes originating from each ASEAN country's capital city, with a breakdown of destinations by country. Departures cities are sorted according to the total number of direct connections.

The top three are Bangkok, Singapore, and Kuala Lumpur. These three airports are also the only ones to offer direct connections to at least one destination in each ASEAN country. Singapore offers the best connectivity within ASEAN with 45 direct routes, followed by Kuala Lumpur (31) and Bangkok (18). Beyond ASEAN, Bangkok is by far the best connected capital, with 95 direct connections to destinations outside ASEAN, followed by Singapore (77) and Kuala Lumpur (63).

On the other hand, Vientiane, the capital of Lao PDR, which is not covered by the TTCI, is the least connected, offering only six connections to other ASEAN countries and just four connections to destinations outside ASEAN. Cambodia's connectivity is not much better. Phnom Penh has a total of 18 scheduled flights, eight of which are to ASEAN destinations.

Jakarta and Manila are at the heart of a dense domestic network with respectively 35 and 36 domestic connections. Such connectivity is made necessary by the geography of Indonesia and the Philippines, which together comprise over 24,000 islands. Their international connectivity is limited, though. Three ASEAN countries—Cambodia, Lao PDR, and Myanmar—cannot be reached directly from the two capitals.

Outside ASEAN, China and India are the best connected, owing to their proximity, size, rapid development, and close links with ASEAN countries. China is the only

Table 6.A: Direct routes from capital cities of ASEAN countries, regardless of frequency

Country of arrival city	Departure city									
	Bangkok, Thailand	Singapore	Kuala Lumpur, Malaysia	Manila, Philippines	Jakarta, Indonesia	Ho Chi Minh, Vietnam	Yangon, Myanmar	Bandar Seri Begawan, Brunei Darussalam	Phnom Penh, Cambodia	Vientiane, Lao PDR
Brunei Darussalam	1	1	1	1	1	—	—	—	—	—
Cambodia	2	2	2	—	—	2	1	—	2	1
Indonesia	4	16	14	1	35	1	—	2	—	—
Lao PDR	3	1	1	—	—	1	—	—	1	8
Malaysia	2	11	15	2	3	1	1	5	2	1
Myanmar	1	1	1	—	—	1	9	—	1	—
Philippines	2	4	2	36	1	1	—	1	—	—
Singapore	1	—	1	1	2	1	1	1	1	1
Thailand	23	6	6	1	2	1	2	1	2	2
Vietnam	2	3	3	2	1	19	2	—	1	1
Australia	4	6	6	4	3	2	—	1	—	—
China	17	20	12	6	6	5	3	2	4	1
India	9	11	8	—	—	—	2	—	—	—
Japan	4	4	2	4	1	4	—	—	—	—
Korea, Rep.	3	1	1	2	1	2	—	—	1	1
United Arab Emirates	3	2	2	2	2	—	—	1	—	—
United States	1	2	—	2	—	—	—	—	—	—
Others	54	31	32	11	8	11	2	4	3	2
Total non-stop routes	136	122	109	75	66	52	23	18	18	18
<i>of which to ASEAN</i>	18	45	31	8	10	9	7	10	8	6
<i>of which domestic</i>	23	—	15	36	35	19	9	—	2	8

Source: Authors' calculations based on IATA Software (accessed April 15, 2011).

Note: One route can be served by multiple flights. Departure cities are sorted according to number of (1) overall routes and (2) routes to ASEAN.

(Cont'd.)

Box 6: Air connectivity in ASEAN (cont'd.)

country with at least one direct flight from all ASEAN capitals, and often many more. In particular, Singapore and Bangkok offer direct connections to 20 and 17 Chinese cities, respectively. Seoul, one of Asia's biggest hubs, and Melbourne in Australia have direct routes from eight and seven ASEAN countries, respectively. India has direct connections from only four ASEAN capitals, but as many as 11 Indian cities are directly linked to Singapore. Japan is connected to six ASEAN countries, though with fewer destinations than India, as is Dubai in the United Arab Emirates. Doha in Qatar (not shown) is one flight away from Indonesia, Malaysia, Singapore, and Thailand.

With three major international nodes, each with at least one direct route to each ASEAN country, ASEAN offers the characteristic of a hub-and-spoke network, in which one of the three main nodes is used as an entry point to the region and a base for "country-hopping" within ASEAN. Singapore alone offers 45 direct routes to ASEAN destinations. Connectivity could be enhanced further by increasing the number and quality of the "spokes". In addition, connections between ASEAN countries and key export markets must be improved.

Connectivity cannot be decreed, and governments must work on creating a conducive and competitive environment and upgrading air transport infrastructure to add handling capacity. This will provide incentives for airlines, particularly

low-cost carriers, in order to open new destinations and make the network more dense. "Soft infrastructure" is also important, and there are ongoing regional efforts for open skies in ASEAN cities. In 2008, ASEAN countries adopted the ASEAN Multilateral Agreement on Air Services, which seeks to liberalize market access and control requirements for carriers in the region. Its scope was expanded to include other ASEAN cities in the 2010 ASEAN Multilateral Agreement on the Full Liberalization of Passenger Air Services. Ultimately, the objective of these initiatives is the creation of an ASEAN Single Aviation Market by 2015.³

Notes

- 1 ASKs represents total passenger carrying capacity multiplied by the total distance of all routes originating from a country during a week.
- 2 See the ASEAN scorecard in Appendix A for detailed results.
- 3 See ASEAN Secretariat 2011 for a review of ASEAN's ongoing initiatives and objectives for 2015.

selected regions reveal that infrastructure represents the weakest aspect of ASEAN's performance in the TTCI. Infrastructure is underdeveloped or in a dire condition, especially in Cambodia, but also in the Philippines, Indonesia, and Vietnam, where even basic infrastructure, such as sanitation, sewage, and electricity, is sometimes lacking. The situation is more satisfactory in Thailand and Malaysia, but much room for improvement remains in large parts of their territories.

ASEAN leadership is aware of the situation, and multiple initiatives are being carried out to address these shortcomings and related "soft infrastructure" bottlenecks (e.g., immigration, customs clearance, and standards and regulations). These initiatives are part of broader efforts at development and integration and are not geared towards the T&T sector in particular. The ASEAN Tourism Strategic Plan 2011-2015 acknowledges, however, infrastructure's vital role for the sector, and one of the Strategic Plan's directions is to enhance and accelerate travel facilitation and ASEAN connectivity (see Box 2).

Implementation of such plans requires a massive investment, estimated to be about US\$596 billion over the period 2006–2015, or roughly \$60 billion a year.²⁸ A third of that amount is required just for maintenance. ASEAN will need to resort to both traditional and more innovative financing instruments, such as public-private partnerships, grants and loans from development banks and co-operation agencies, and debt issuance.²⁹

Air transport

Pillar 6 represents both the quantity of air transport, as measured by available seat kilometers (reflecting passenger carrying capacity and extent of routes), number of departures, airport density, and number of operating airlines, as well as the quality of air transport infrastructure for both domestic and international flights. Air transport infrastructure is critical for tourism. It is estimated that 51 percent of international travellers arrived by air transport in 2010, compared with 41 percent by road and the rest by train or over water (UNWTO 2011a).

The picture ASEAN presents in this pillar is very mixed (see Table 3 and Appendix A). Singapore ranks a high 14th, while Thailand (23rd), Malaysia (34th), and Brunei Darussalam (41st) do relatively well. Despite mediocre infrastructure, Indonesia ranks a satisfactory 58th, owing to good connectivity. However, the performance of the Philippines (80th) and Vietnam (85th) leaves much to be desired, while Cambodia (113th) sets the low mark for ASEAN in six of the seven indicators comprising the pillar. Box 6 takes a closer look at air connectivity within ASEAN, demonstrating how the region could further benefit from its hub-and-spoke network.

Ground transport

Pillar 7 assesses the extensiveness and quality of a country's ground transport infrastructure. This takes into account the quality of roads, railroads, and ports, as well as the extent to which the national transport network as

a whole offers efficient, accessible transportation to key business centers and tourist attractions.

The state of ground transport infrastructure in ASEAN is dire, with all countries but Singapore presenting shortcomings (see Table 3 and Appendix A). The challenge is probably greatest for road and rail transport, given the size and geography of the region. Singapore leads ASEAN by a wide margin, ranking second overall in this pillar, behind only Hong Kong SAR. Although infrastructure is easier to deploy in such a small economy, Singapore's score of 6.6 out of 7 is nevertheless impressive. The rest of ASEAN again splits into distinct groups. Malaysia (36th) is a distant second with its score of 4.6, but does relatively well across the board except for road density (72nd). Thailand (56th) features in the top half of all measures, but there is much room for improvement.

The assessment is less favorable for Vietnam (77th), Indonesia (82nd), Cambodia (103rd), and the Philippines (114th). None of these appears in the top 50 on the individual indicators composing the pillar, except the Philippines' 47th rank for road density. The Philippines ranks as low as 131st for the quality of its seaport and road infrastructure. The assessment of Brunei Darussalam (49th) is mixed. It ranks 33rd in road quality but a low 118th in the extensiveness and effectiveness of its ground transport network.³⁰

Several projects at the national and regional levels target ground transportation. In particular, the ASEAN Highway Network, launched in 1999, consists of 23 main routes totaling 38,400 kilometers across the entire ASEAN region. The network already exists but is in dire need of upgrade. The objective is to convert all the routes to class 1 standard (i.e., freeways) by 2015. This project is part of the Asian Highway project, initiated in 1959 by several countries in South and Southeast Asia. It aims to create a 141,000-kilometer network of highways to link these regions to Europe. Meanwhile, the Singapore-Kunming Railway Link is expected to link major cities over 7,000 kilometers in eight countries, namely Singapore, Malaysia, Thailand, Cambodia, Vietnam, Lao PDR, Myanmar, and China. Some sections still need to be built. By ASEAN's own admission, both projects are experiencing significant delays.³¹

Pillar 8: Tourism infrastructure

The tourism-specific infrastructure pillar includes as indicators the number of hotel rooms per hundred population, the presence of major car rental companies in the country, and the number of automated teller machines (ATMs) per million population, used as a proxy for the financial infrastructure available to tourists and travelers.

For several ASEAN countries, this pillar constitutes an area of relative weakness. Cambodia (131st) is in the bottom 10 for this category. Indonesia (116th) and Vietnam (110th) rank only a few places higher, and well below the 100th place. Brunei (91st) and the Philippines (98th) fare marginally better. Malaysia (74th) also features in the bottom half of the ranking, one of its worst pillar performances. Only Singapore (33rd) and Thailand (40th)

feature in the top half in this category. The contrast between countries is particularly stark in terms of hotel infrastructure. Singapore boasts 83 hotel rooms per 10,000 population (37th), 40 times higher than in the Philippines (132nd).

Another gauge of a country's state of tourism infrastructure is the number of major car rental companies operating there, with a maximum score of seven if all seven companies are present. Of the 139 countries, 22 received the maximum score, none of them in ASEAN, where Thailand leads with six of the seven companies present there (23rd). The Philippines and Singapore follow with five and four companies, respectively. On the bottom end, only two companies operate in Vietnam, Indonesia, and Brunei Darussalam.

The number of ATMs accepting Visa cards, used to approximate financial infrastructure development, is generally limited in ASEAN, except in Singapore—again—which has almost 900 ATMs per million population (7th). In Cambodia (115th), ATM density is 23 per million, meaning there are about 320 ATMs in the entire country.³²

Governments are not expected to take the leading role in investing and developing tourism infrastructure in their countries. Instead, they should seek to create an enabling environment that will spur such investment.

Pillar 9: ICT infrastructure

Given the increasing importance of the online environment for planning itineraries and purchasing travel and accommodations, the TCI measures the extent of ICT use. The pillar includes internet and fixed and mobile telephony penetration rates, as well as the extent to which businesses use the Internet. Like other types of infrastructure, ICT has benefits that extend well beyond the T&T sector.

Singapore sets the benchmark within ASEAN in terms of infrastructure, and ICT is no exception (see Table 3 and Appendix A). It ranks 20th in this pillar with a score of 5.2 out of 7. The gap is wide with the rest of the region. Brunei Darussalam is a distant second with a score of 3.9 (47th overall), closely followed by Malaysia (52nd). A third group is comprised of Vietnam (67th) and Thailand (81st). Indonesia (96th) and the Philippines (98th) are found much lower, while Cambodia (123rd) is among the world's least connected countries.

As elsewhere, growth in mobile telephony penetration has been exponential. There are now more mobile telephone subscriptions than inhabitants in six of the eight ASEAN countries under review.³³ It will soon be the case in Indonesia, which boasts 92 subscriptions for every 100 population. In Cambodia, the rate drops to 58, a low figure by international standards.³⁴ Mobile telephony is transforming economies and societies, but a country cannot rely exclusively on that technology to achieve quality connectivity. High cost, slow speeds, and technical limitations remain significant obstacles to widespread adoption of mobile Internet in most countries. This technology cannot yet be seen as a perfect substitute for fixed (i.e., wired) Internet, especially for business use.

While mobile telephony has become almost ubiquitous, the Internet has not, although it is used more and more by businesses. The Forum's survey of business executives reveals that companies make extensive use of it in most ASEAN countries, although Cambodia and the Philippines lag slightly behind. However, the firms being surveyed are large ones. Many businesses in the T&T sector are small or micro enterprises (e.g., hospitality services and travel agencies), which may face a different situation. For this reason, Internet usage among the population at large must also be taken into account. Within ASEAN, Internet uptake beyond businesses remains limited, with less than 50 percent of the population using this technology in all countries except Singapore (71 percent) and Malaysia (56 percent). At 1.3 percent, Cambodia's penetration rate is among the lowest in the world.

Internet access at broadband speed is even scarcer. The penetration rate, measured as the number of broadband Internet subscriptions per 100 population, is about 25 percent in Singapore but drops to 6 percent in Malaysia and 5 percent or below in other ASEAN countries. It is the privilege of a very few in Cambodia and Indonesia, with less than one broadband connection for every 100 people.

Poor digital connectivity prevents businesses, individuals, and governments from reaping the benefits of ICT, such as new business opportunities, enhanced productivity, improved access to basic services, and better governance. In addition, the digital divide—the wide and persisting disparities in ICT use—within and across ASEAN countries exacerbates the differences in investment attractiveness. As all sectors do, T&T has much to gain from improved ICT connectivity.

ASEAN's ICT Master Plan 2015, adopted in 2011, proposes specific measures to improve digital connectivity and to bridge the digital divide. These include creation of an ASEAN broadband corridor and of an ASEAN Internet exchange network.

Pillar 10: Price competitiveness

Price competitiveness in the T&T sector is an important element to take into account, as lower costs increase the attractiveness of some countries for many travelers. This category includes purchasing power parity (PPP), which measures the difference in general price levels across countries; the average cost of fuel and hotel accommodation; airfare ticket taxes and airport charges, which can make flight tickets much more expensive; and taxation, which may be passed through to travelers.³⁵

ASEAN achieves a remarkable and consistent group performance in this pillar (see Table 3 and Appendix A). It is where member countries (except Singapore) earned some of their best marks. Brunei Darussalam ranks first overall (based on partial data), Malaysia 3rd, Indonesia 4th, Thailand 15th, Vietnam 16th, the Philippines 20th, Singapore 29th, and Cambodia 31st. These results suggest that ASEAN is indeed an affordable destination by international standards, which for some travel categories confers a major competitive advantage on the region.

For instance, among 139 countries, the average price for first-class hotel accommodation is among the cheapest in Indonesia (\$71, 6th cheapest), Thailand (\$77, 8th), Malaysia (\$80, 11th), and the Philippines (\$88, 15th).³⁶ It is \$117 in Cambodia (47th) and \$126 in Vietnam (57th). The price in Singapore (\$138, 78th) is about the same as in the United States, Japan, Hong Kong, Australia, and the United Kingdom, where the average price ranges from \$131 to \$139, and half the price in the two most expensive places, namely Ukraine and Nigeria.

The factors determining price levels are plentiful, including the level of development, economic structure, government policies, monetary policy, and all sorts of internal and external shocks of different nature. Analysis of all these factors is clearly beyond the scope of the present study. However, a number of measures by the government can have a significant impact, direct or indirect, on price levels, including in areas relevant to the T&T sector. For instance, when a government enforces fair competition and applies the rules and principles of the Multilateral Trade System, it helps prevent excessive price distortions and maximizes the chances that price levels reflect the true value of products and services. These measures are particularly relevant in the T&T sector, which is sometimes heavily regulated to favor domestic and state companies over foreign and private ones, or considered an easy source of foreign exchange and therefore subjected to all kinds of taxes. Overregulation and protectionism can have a severe adverse impact on the availability, price, and quality of products and services offered.

Pillar 11: Human resources

Quality human resources in an economy ensure that the tourism industry has access to the collaborators it needs to grow. This pillar of the TCI takes into account health, education, and training levels in each economy, and is made up of two specific subpillars. The *education and training* subpillar measures educational attainment rates (primary and secondary) and the overall quality of the educational system, as assessed by the business community. Besides the formal educational system, it also takes into account private sector involvement in upgrading human resources, including the availability of specialized training services and the extent of staff training by companies in the country. The *availability of qualified labor* subpillar takes into account the extent to which regulations impede hiring and firing and make it easy or difficult to hire foreign labor. The health of the workforce is also included here, as measured by life expectancy and costliness of HIV/AIDS to businesses.

Singapore ranks 2nd overall in this pillar, behind Hong Kong, and leads ASEAN by a wide margin (see Table 3 and Appendix A). Malaysia (37th), Brunei Darussalam (47th), and Indonesia (51st) form a group far behind. Ranked slightly lower, Vietnam (72nd), Thailand (74th), and the Philippines (86th) are in the bottom half of the ranking, while Cambodia is ranked lowest at 109th place.

One encouraging fact is that the eight ASEAN countries under review are close to achieving universal

enrollment in primary school, including in Cambodia, where enrollment is almost 90 percent. The situation is less impressive for secondary school. Enrollment is universal in Singapore, which boasts a gross enrolment rate of 103.0 percent, and in Brunei Darussalam (98.2 percent), while the Philippines, Thailand, and Indonesia boast rates between 75 percent and 82 percent.³⁷ Vietnam and Malaysia are close to 70 percent, while in Cambodia enrollment is just above 40 percent, which corresponds to the 120th position, near the bottom.

Quality of education matters as much as quantity, and ASEAN achieves mixed results in this dimension. Singapore ranks an impressive first out of all countries for the quality of its educational system. A distant second within ASEAN, Malaysia ranks 23rd, trailed by Brunei Darussalam (31st) and Indonesia (40th). Vietnam (61st), Thailand (66th), and the Philippines (69th) are close to each other. Cambodia trails its peers, ranking 82nd. Although all countries bar Cambodia rank in the top half of the pillar, they get low to average marks, with the notable exception of Singapore (6.1 out of 7).

Like the rest of the economy, the T&T sector has much to gain from an improved educational system. ASEAN countries span the entire development ladder. T&T offers the possibility for those countries at an early stage of development—especially Cambodia but also Indonesia, the Philippines, and Vietnam—to move up the value chain. But for that to happen, the sector needs talent. Basic or mediocre education is not enough. Language, computer, and management skills are important for succeeding in the sector, as well as more specific knowledge such as biology and history.

Human resources represent a key aspect of ASEAN's strategy to develop the T&T sector, in particular mobility and training. Among the Strategic Plan's overarching goals is to increase the quality of services and human resources in the region by: (1) developing a set of ASEAN tourism standards and a certification process; (2) implementing a mutual recognition agreement for tourism professionals; and (3) increasing knowledge and skill development.³⁸ Ultimately, the objective of this strategy is to "increase opportunities for residents of ASEAN to fully participate in the tourism economy." This can happen only if countries invest in education and training.

Pillar 12: Affinity for travel and tourism

This pillar measures the affinity for T&T, that is, the extent to which a country and society are open to tourism and foreign visitors. Such affinity is assessed through the population's attitude toward foreign travelers; the extent to which business executives recommend leisure travel in their countries to foreign counterparts; and tourism openness.

The performance of ASEAN countries in this pillar is mixed, owing to very different degrees of tourism openness (see Table 3 and Appendix A). With a score of 5.7 out of 7, Singapore ranks 12th in this pillar, followed by Malaysia (17th, 5.4), Cambodia (21st, 5.3), and Thailand (24th, 5.3). Clustered around a mediocre score of 4.5 are the Philippines (65th), Brunei Darussalam

(78th), and Vietnam (87th). At 121st, Indonesia is ASEAN's worst performer in this area, with a score of 4.2.

Tourism openness measures tourism expenditures and receipts as a percentage of GDP. It gives a sense of both the significance of tourism for a country (tourism receipts) and the interest of its residents in travel abroad (tourism expenditures), taking into account the size of its economy. The more tourists received and the more residents traveling abroad, the more "tourism-ready" a society is. Based on that measure, Singapore is the most open of ASEAN countries, with combined tourism expenditures and receipts equivalent to 13.7 percent of its GDP (15th), followed by Cambodia (11.8 percent, 16th) and Malaysia (11.5 percent, 18th). Tourism openness is minimal in Indonesia, with receipts and expenditures representing just 2.1 percent of GDP (115th).

The possibility of traveling abroad is influenced by purchasing power, that is, by income level. Indeed, tourism *expenditures* account for two-thirds of the openness of Singapore and Brunei Darussalam, the two richest ASEAN countries. In other countries, it is mostly tourism *receipts* that drive openness, including in Cambodia, where tourism receipts represent 10 percent of GDP, compared with just 1 percent for expenditures.

The attitude of the population towards visitors is very welcoming across ASEAN, and indeed in a vast majority of countries around the world (see Figure 5). The average score across the 139 economies covered by the TTCI is 6.1 out of 7. This explains why Indonesia, despite its high score of 5.9, ranks a low 113th overall. Thailand (8th) and Singapore (9th) both get a score of 6.7, not far from top-scoring New Zealand (6.9).

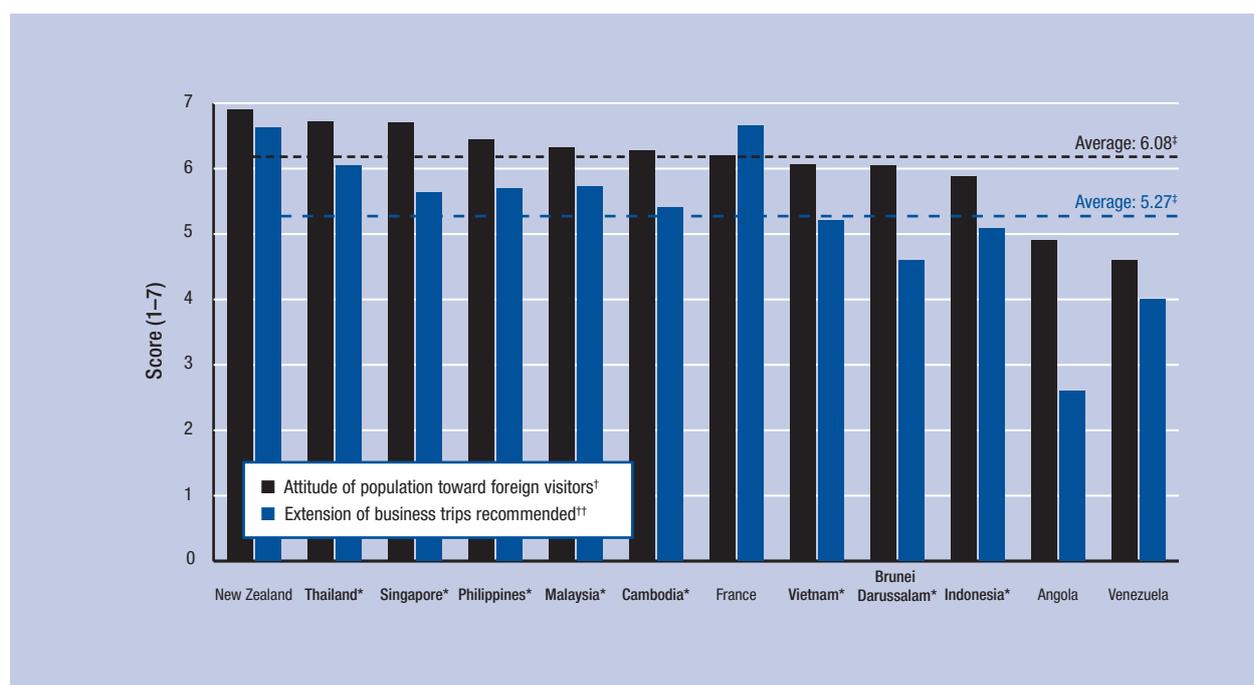
Another way to gauge the local population's affinity for T&T is to ask businesspeople whether they recommend that their important foreign business contacts extend their stay for leisure following a business trip. This gives a sense of a country's attractiveness as it is perceived by its own business community. Results are more mixed in that indicator (see Figure 5). All ASEAN members obtain a score above 5 (out of 7), with the exception of Brunei Darussalam (4.6). In fact, most countries in the world score above 5, although there are a handful where people are unlikely to recommend an extension, Angola being the most extreme example.

The government has little control over such intangibles as the sentiments of the population, which are influenced by myriad cultural, historical, and socio-economic factors. But the government can communicate to the local population about the importance and benefits of T&T for development, in complement to marketing efforts to promote the country abroad. Ultimately, however, the best way to avoid resentment and negative attitudes is for the government to develop tourism sustainably. Indeed, the Strategic Plan states the quality of life of residents is one essential objective of ASEAN's T&T strategy.

Pillar 13: Natural resources

Countries that are able to offer travelers access to natural assets clearly have a competitive advantage. This

Figure 5: Attitude towards tourism in ASEAN and selected countries



Source: World Economic Forum, Executive Opinion Survey 2010 and 2011. See Browne and Geiger 2011 for details.

* Denotes ASEAN member country.

[†] How welcome are foreign visitors in your country? (1 = very unwelcome; 7 = very welcome). Countries are sorted by scores on this measure.

^{††} 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)

[‡] Average score for 139 economies

pillar of the TTCI includes a number of environmental attractiveness measures, including the number of UNESCO natural World Heritage sites, the quality of the natural environment, the richness of fauna in the country as measured by the total known species of animals, and the percent of a nation's area that is protected.

With the exception of Singapore (94th), ASEAN countries all feature in the top half of the ranking in this pillar, led by Brazil, Tanzania, and the United States (see Table 3 and Appendix A). Indonesia ranks 17th, followed by Thailand (21st) and Malaysia (22nd). Brunei Darussalam is 38th, while Vietnam (51st), Cambodia (53rd), and the Philippines (70th) close the march. As a group, the region does well and compares favorably with a number of regions around the world (see Box 3).

The results of the TTCI and other evidence attest to ASEAN's extraordinary natural heritage. The region is home to 12 of the world's 211 UNESCO natural World Heritage sites, 23 of the 580 UNESCO biosphere reserves, and two of the world's 34 biodiversity hotspots (see Box 7). Moreover, Indonesia, Malaysia, and the Philippines are among the 17 so-called Megadiversity Countries, which together contain more than two-thirds of the world's biodiversity.³⁹ Indonesia is home to some 2605 known species of mammal, birds, and amphibians, the fourth highest total in the world after Brazil (3172 species), Colombia, and Peru. Thailand (17th), Vietnam (22nd), and Malaysia (23rd) have about half that number, but still are among the world's most diverse places.⁴⁰

At the same time—and as already highlighted—several measures of pollution and environmental quality betray the relative fragility of the region's exceptional natural heritage and the strain put on it (see Pillar 3). Moreover, only small fractions of the territory of Indonesia (6.4 percent of total land), Vietnam (4.9 percent), Singapore (3.5 percent), and the Philippines (3.3 percent) have been declared protected. By contrast, protected areas account for some 28 percent of Brunei Darussalam's land (9th highest ratio) and for 22 percent of the land in Cambodia (19th), 17 percent in Thailand (30th), and 15 percent in Malaysia (41st). Provided that protection is strictly enforced, protected areas are safe havens for biodiversity and a signal of government commitment to developing economic activities, including the tourism industry, sustainably.

A much more subjective measure of environmental quality consists in business executives' opinions of the quality of their country's natural environment.⁴¹ Brunei (20th out of 139) and Singapore (21st) earn a score of 5.5 out of 7. Malaysia ranks fairly high (42nd, 4.9). The other ASEAN countries rank in the bottom half of the ranking: Thailand (76th, 4.2), Cambodia (85th, 4.0), the Philippines (93rd, 3.8), and Indonesia (100th, 3.7). Much lower, and of particular concern, is Vietnam (132nd, 3.0).

Natural wealth greatly contributes to ASEAN's T&T attractiveness. It is one of the most compelling selling points of national and regional marketing campaigns. But nature is not only an attraction for tourists. Its exploitation contributes to the region's rapid economic

Box 7: ASEAN's biodiversity hotspots and UNESCO World Heritage sites

BIODIVERSITY HOTSPOTS

Most of ASEAN territory lies within a “biodiversity hotspot”, a sign of the region’s extraordinary natural richness. Conservation International, a non-governmental organization, has identified 34 biodiversity hotspots around the world based on quantitative criteria.¹ To qualify as a hotspot, a region must (1) contain at least 1,500 species of vascular plants (more than 0.5 percent of the world’s total) as endemics; and (2) have lost at least 70 percent of its original habitat. The 34 hotspots once covered about 16 percent of the Earth’s land surface, but this share has shrunk to 2.3 percent as a result of habitat loss. Still, they contain as endemics 29 percent of the world’s freshwater fish species, 50 percent of plant species, and 42 percent of terrestrial vertebrate species. Two hotspots lie partly or entirely within ASEAN:

- **Indo-Burma Hotspot:** This hotspot of 2,373,000 square kilometers encompasses eastern Bangladesh, north-eastern India, nearly all of Myanmar, all of Lao PDR, Cambodia, and Vietnam, the vast majority of Thailand, and a small part of Malaysia. It also covers coastal lowlands of southern China, Hainan Island (China), parts of Yunnan (China), and the Andaman Islands (India). Conservation International reckons that Indo-Burma is one of the most threatened biodiversity hotspots, because of the rate of resource exploitation and habitat loss. Only about 5 percent of natural habitats remain in relatively pristine condition, with another 10-25 percent of the land in damaged, but ecologically functional, condition. The need for agricultural products has contributed to widespread forest destruction; tree plantations have replaced large areas of lowland forest, while coffee, tea, vegetable crops, and sugarcane plantations threaten montane and hill forests. Other threats to forests include logging, mining for gems and ore, firewood collection, and charcoal production.
- **Philippines Hotspot:** This hotspot comprises the entire Philippines and its 297,179 square kilometers. The hotspot contains over 6,000 endemic plant species. It is also one of the most endangered areas in the world. Historically logged for timber products, today its forests

are also being cleared for farming and developments to accommodate the nation’s growing population. Other imminent threats include mining and land conversion. In 1997, regions where mining activities took place covered one-quarter of the country and included more than half of the remaining primary forest. The country’s development objectives still need to be harmonized with biodiversity conservation goals.

UNESCO NATURAL WORLD HERITAGE SITES

As of May 2012, the ASEAN region is home to 12 UNESCO Natural World Heritage sites, the third highest number behind Australia (16 sites) and the United States (15), and on a par with China.² The sites are listed below by country:

- **Indonesia (4 sites):** Komodo National Park (date of inscription: 1991), Lorentz National Park (1999), Tropical Rainforest Heritage of Sumatra (2004, on the List of World Heritage Sites in Danger since 2011), and Ujung Kulon National Park (1991).
- **Malaysia (2):** Gunung Mulu National Park (2000) and Kinabalu Park (2000).
- **Philippines (2):** Puerto-Princesa Subterranean River National Park (1999) and Tubbataha Reefs Natural Park (1993).
- **Thailand (2):** Dong Phrayayen-Khao Yai Forest Complex (2005) and Thungyai-Huai Kha Khaeng Wildlife Sanctuaries (1991).
- **Vietnam (2):** Ha Long Bay (2000) and Phong Nha-Ke Bang National Park (2003).

Notes

- 1 All figures cited here are from Conservation International’s website, www.conservation.org (accessed April 29, 2012).
- 2 The information is from the UNESCO World Heritage Centre website, whc.unesco.org (accessed May 13, 2012). Figures include mixed natural-cultural sites. The United States and Australia each added one Site to the list since the TCI was calculated in November 2010.

development. Hundreds of millions of people depend on natural resources for their living. This inevitably creates competition among users. The government therefore faces the extraordinary challenge of balancing the socio-economic interests of different stakeholders while meeting the sustainability imperative. Developing the T&T sector itself is a tough balancing act. There might be friction between different types of tourism (e.g., eco-tourism and mass tourism). The very popularity of a site, if not well managed, can lead to its degradation or destruction. Sustainable tourism promises that nature is better protected and maintained, the tourist experience is enhanced, and the local economy benefits as a result.

Indeed, all strategic directions and actions outlined in the Strategic Plan are guided by principles of responsible and sustainable tourism, recognizing the

significant role that tourism plays not only in natural conservation, but also in poverty reduction, climate change, gender and minority issues, education, and cultural preservation. Beyond the T&T sector, ASEAN countries have time and again pledged to cooperate to protect the environment, including in the seminal Singapore Declaration of 1992, in which they committed to sustainable development – with mixed results so far.

Pillar 14: Cultural resources

Cultural resources are a critical driver of T&T competitiveness. This pillar includes the number of UNESCO cultural World Heritage sites, sports stadium seat capacity, and the number of international fairs and exhibitions in the country, as well as a measure of its

creative industries exports, which provides an indication of cultural richness.

In this pillar, ASEAN countries split into two groups (see Table 3 and Appendix A). The first is made up of Singapore (30th), Thailand (32nd), Malaysia (33rd), Vietnam (36th), and Indonesia (39th). The second group comprises the Philippines (76th), Brunei Darussalam (91st), and Cambodia (111th).

The richness of ASEAN countries' cultural heritage is beyond doubt. Yet, it seems that these countries are not particularly successful at showcasing it. There are only 19 UNESCO cultural World Heritage Sites in the entire ASEAN region; five of these are located in Vietnam, three each in Indonesia and Thailand, two each in Cambodia and Lao PDR, and one in Malaysia. The Philippines also is home to three sites, including the Rice Terraces of the Philippine Cordilleras, which, since 2001, is the only property in the region to be on the List of World Heritage in Danger.

These 19 sites account for only 2.5 percent of the 753 cultural and mixed cultural-natural heritage sites listed worldwide. Italy alone has 44 sites (5.8 percent), followed by Spain (40), France (34), and China (33). By comparison, natural heritage sites in ASEAN countries account for 5.7 percent of all natural heritage sites on the World Heritage List (see above). But even this share remains low, given the region's extraordinary biodiversity.

ASEAN is also better represented on the List of Intangible Cultural Heritage, which includes 267 heritage elements worldwide.⁴² This UNESCO initiative aims to draw attention to the importance of safeguarding intangible heritage, which has been identified as an essential component and a repository of cultural diversity and creative expression. China again tops the list with 36 inscriptions to the List, followed by Japan with 20 inscriptions. Indonesia (6 inscriptions), Vietnam (6), the Philippines (2), Cambodia (2), and Malaysia (1) combine for a total of 17 inscriptions (6.4 percent).

Seeking the inscription of a site on a UNESCO World Heritage List is as much a marketing strategy as a commitment to its conservation. While no formal data have been collected, a site's inscription on the List often coincides with a boost in visitation rates.⁴³ The weak representation of ASEAN countries therefore appears as a missed opportunity. Things could change. In its Strategic Plan, ASEAN calls for the development of "experiential regional products, and creative marketing and investment strategies." One measure to achieve this objective is to create "regional corridors, circuits, clusters and packages for [tangible and intangible] cultural and natural heritage tourism." With a view to this goal, ASEAN intends "to work closely with UNESCO [...] to develop sound relationships for ongoing heritage tourism product development."

Another finding from the analysis of this pillar seems to confirm the status of Singapore, Thailand, and Malaysia as major business hubs in the region. When considering the most popular destinations for international exhibitions and fairs, the United States leads with an average of 628 recurring events between 2007 and 2009, followed by Germany and Spain.⁴⁴ But

Singapore does remarkably well, especially given its small size. It ranks 23rd out of 139, with an average of 129 recurring events, almost twice Hong Kong's figure. Thailand ranks 30th with 106 events and Malaysia is 32nd with 100 events, on par with India. The excellent connectivity (see Box 6) and good infrastructure of these countries contribute to making them popular venues for large-scale events. Indonesia (43rd, 41 events), the Philippines (47th, 35 events), and Vietnam (52nd, 30 events) rank lower, while Cambodia (99th) and Brunei (104th) hosted just three annual events each.

CONCLUSION

The travel and tourism sector has long been considered a key driver of economic development and integration leading towards realization of the ASEAN Economic Community, one of the three pillars of the ASEAN Community. Member countries, individually and collectively, have made great efforts to promote and develop the T&T sector. This study attempts to measure the success of these efforts through the lens of the TTCI, which assesses the factors that make the T&T sector attractive for development in a country—or in a region, for that matter.

Mirroring the profound political, cultural, and economic diversity that characterizes ASEAN, its member countries spread across the TTCI rankings. We can classify them into four groups. Singapore is in a league of its own, leading ASEAN in all but two areas of the Index. Second, Malaysia and Thailand do well, despite a few weaknesses. The third group consists of Vietnam, Indonesia, and Brunei Darussalam, which all display very wide performance swings. Finally, both the Philippines and Cambodia present serious shortcomings in most dimensions. The analysis reveals a similarly contrasted picture in terms of tourism outcomes, which TTCI contributes to explaining.

Despite this diversity, there exist common strengths and weaknesses throughout the region. Most ASEAN countries are blessed with extraordinary natural and cultural heritages, which obviously provide fertile ground for T&T development. It must be noted that these countries could do more to showcase and preserve their heritage. The competitiveness of the sector, however, does not necessarily hinge on natural and cultural heritage—Singapore and Cambodia being two extreme examples.

Government prioritization of T&T is another strength shared by most ASEAN countries. Concrete actions, however, do not always follow. A third area of strength is the region's affordability. Visiting the region is relatively cheap by international standards. Undoubtedly, price competitiveness is an asset, given the present economic context.

On the other hand, inadequate infrastructure in vast swaths of the region remains a significant obstacle to the development of not only the T&T sector but the private sector in general. This deficit hinders physical connectivity, exacerbates disparities, and ultimately hampers the creation of the ASEAN Economic Community. A related issue is the poor public health

situation. It is truly alarming in some parts of the region, where inadequate sanitary infrastructure and poor hygiene result in poor health outcomes. Unhealthy conditions are not just an inconvenience for tourists, but a major development issue requiring urgent attention.

Environmental stewardship, or lack thereof, represents another area of relative weakness.

Conservation efforts must be commensurate with the region's extraordinary natural heritage and the tourism attractiveness it derives from that heritage. Governments in the region face the daunting challenge of balancing the socio-economic interests of different stakeholders while meeting the sustainability imperative. Their success has been partial and, despite their commitment, evidence shows that the natural environment is under great strain and, indeed, deteriorating in many places.

The ASEAN Tourism Strategic Plan 2011-2015 provides a roadmap to 2015 to address most of the bottlenecks and leverage the strengths, identified in this *Report*. Provided they get implemented, these measures will not only unleash the potential of the T&T sector, but also boost the region's competitiveness, help its poorer countries to move up the value chain, produce enormous socio-economic benefits, and contribute to realizing ASEAN's grand vision.

NOTES

- 1 WTTC 2012. Estimates include both direct and indirect contributions. Throughout the study, we refer to the "T&T sector" and to the "tourism industry" and "travel industry," which belong to that sector.
- 2 Due to limited data availability, Lao PDR and Myanmar, the other two ASEAN members, are not covered by the TTCl and are therefore excluded from the present analysis.
- 3 Depending on the classifications, Southeast Asia includes ASEAN countries and Timor-Leste. However, in this study, the term is used to refer to ASEAN countries only.
- 4 GDP and employment figures come from WTTC 2012 and are for 2011. Timor-Leste is excluded.
- 5 For a more detailed description of the different pillars, see World Economic Forum 2011a, pp. 4-ff.
- 6 For details on the Forum's Executive Opinion Survey, see Browne and Geiger 2011.
- 7 Due to insufficient data, Lao PDR and Myanmar are not covered by the TTCl and are therefore excluded from this analysis. In addition, this study focuses exclusively on ASEAN countries, and a review of the entire rankings is beyond its scope. The interested reader will find a detailed analysis in World Economic Forum 2011a.
- 8 The International Monetary Fund uses three main criteria to classify the world into advanced and emerging economies: (1) per capita income level; (2) export diversification; and (3) degree of integration into the global financial system. Note, however, that these are not the only factors considered by the IMF in deciding the classification. See www.imf.org/external/pubs/ft/weo/faq.htm.
- 9 We consider loosely correlated a relation with an R2 coefficient of less than 0.2.
- 10 Cultural heritage is positively correlated with income (R2 of 0.46), maybe because richer countries have more resources to showcase such heritage.
- 11 Note that among the five indicators composing the *price competitiveness* pillar, the hotel price index is not available for Brunei Darussalam. Thus, this first-place ranking is the result of a partial assessment.
- 12 Those are the very same strengths that contributed to making Singapore one of the world's most competitive economies. Singapore ranks second out of 142 economies in the World Economic Forum's *Global Competitiveness Index 2011-2012*.
- 13 The scores of country groupings reported here correspond to the arithmetic mean of individual members' scores.
- 14 ASEAN Secretariat 2008.
- 15 Such is the case of the *institutions* pillar of the Global Competitiveness Index and of the *political and regulatory environment* pillar of the Networked Readiness Index.
- 16 The median rank of ASEAN countries on the three tourism-related variables is 49, whereas it is 80 on the other six variables of this pillar related to the general business environment.
- 17 This variable measures the total number of Critically Endangered, Endangered, and Vulnerable species as a percent of total known species of mammals, birds, and amphibians. Data are from the International Union for Conservation of Nature's *Red List of Threatened Species 2010*.
- 18 Fine particles, or particulate matter, are suspended particulates less than 10 microns in diameter that can penetrate deep into the respiratory tract and cause significant health damage. They also have climate effects. Data in this paragraph are for 2009 and come from the World Bank, World Development Indicators 2012 Online Database (accessed April 28, 2012).
- 19 The ASEAN Tourism Strategic Plan 2011-2015 states that all strategic directions and actions are to be guided by responsible and sustainable tourism principles. *Ensuring sustainability* is also one of the pillars of the ASEAN Socio-Cultural Community.

- 20 Author's calculations based on data for 2010 or most recent year available from the United Nations Office on Drugs and Crime's Homicide Statistics available at www.unodc.org/unodc/en/data-and-analysis/homicide.html (accessed April 28, 2012) and on population data from the United Nations Population Division's *World Population Prospects – The 2010 Revision* available at esa.un.org/unpd/wpp/Excel-Data/population.htm (accessed April 28, 2012).
- 21 The results are derived from the following Executive Opinion Survey question: To what extent can police services be relied upon to enforce law and order in your country? [1 = cannot be relied on at all; 7 = can always be relied on].
- 22 All figures in this paragraph are from START 2011.
- 23 For instance, in January 2012, the United States Department of State issued a travel warning for the Philippines due to the risk of terrorist activity in certain parts of the country, which is the only ASEAN country affected by such a measure as of April 28, 2012.
- 24 The only area where Singapore lags behind other advanced economies is physician density, which, at 13 per 10,000 population, is significantly lower than in Europe, Korea, and Taiwan.
- 25 For instance, with a score of 6.8, Rwanda ranks first on this measure and Mauritius second. Yet, Mauritius attracts 50 percent more tourists than Rwanda, despite being ten times smaller.
- 26 Of course, these results must be interpreted with caution and in light of each country's priorities.
- 27 See, for example, Bhattacharyay 2009 for a review of the benefits of infrastructure development and the situation in ASEAN.
- 28 See Bhattacharyay 2009 for references.
- 29 With a view toward these plans, the ASEAN Infrastructure Fund was launched in May 2012. The AIF has initial equity of US\$485 million and is expected to reach US\$13 billion in lending commitments by 2020.
- 30 The assessment for Brunei Darussalam is based on incomplete data as the country does not have any railroad.
- 31 See ASEAN Secretariat 2010.
- 32 Figures are for 2010.
- 33 This, however, does not mean that everybody has a telephone, as the statistic includes pre-paid subscriptions, some of which might not be in use any longer, and users with multiple subscriptions.
- 34 Given the rapid growth in ICT penetration, we cite here the estimates for 2010 by the International Telecommunication Union estimates. Figures used in the computation of the TTCI are for 2009, thus explaining the discrepancies (see Appendix A).
- 35 Note that the PPP ratio does not measure the purchasing power of an individual in the country, as that measure depends on wages. The TTCI assesses price competitiveness only from the perspective of the international visitor.
- 36 Average price for 2008. See Appendix B for details.
- 37 Gross enrollment rates for 2009 or most recent year available. Because gross rate is calculated as the ratio of total enrollment, *regardless of age*, to the population of the age group that officially corresponds to the secondary education level, it can exceed 100 percent.
- 38 ASEAN Secretariat 2010.
- 39 Both *biodiversity hotspot* and *Megadiversity Country* are concepts coined by Conservation International. See www.conservation.org (accessed May 13, 2012).
- 40 Figures for 2010. See Appendix B for details.
- 41 The question reads as follows: How would you assess the quality of the natural environment in your country? [1 = extremely poor; 7 = among the world's most pristine]
- 42 In the TTCI, we sum the number of cultural heritage sites and the number of intangible cultural elements to produce indicator 14.01. See Appendix B for details..
- 43 Pedersen 2002.

- 44 This variable measures the average number of international fairs and exhibitions held annually in each country between 2007 and 2009. 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 that rotate among a minimum of three countries.

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Appendix A: ASEAN scorecard

To complement the analysis, the next double page presents a detailed scorecard for the eight ASEAN countries covered by the Travel & Tourism Competitiveness Index 2011. The table reports the rank and score of each country in the main components and the 75 individual indicators of the Index. The components are organised such as to mirror the structure of the Index. For each component, the title and units of measurement appear in the leftmost column. For comparison purposes, the name and score of the best-performing country are reported in the right-most columns. In presence of multiple best performers, their number is reported in parenthesis. For more information about the indicators, Appendix B provides a list of all indicators with short descriptions and sources.

(Cont'd.)

Component/indicator	Singapore		Malaysia		Thailand		Brunei Darussalam		Indonesia		Vietnam		Philippines		Cambodia		Best performer	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Country	Score
TRAVEL & TOURISM COMPETITIVENESS INDEX 2011	10	5.2	35	4.6	41	4.5	67	4.1	74	4.0	80	3.9	94	3.7	109	3.4	Switzerland	5.7
Subindex A: T&T Regulatory Framework, 1-7 (best)	6	5.7	60	4.7	77	4.5	96	4.2	94	4.2	88	4.3	98	4.2	110	3.9	Switzerland	6.0
Policy rules and regulations, 1-7 (best)	1	6.0	21	5.1	76	4.4	120	3.7	88	4.2	67	4.4	70	4.4	132	3.4	Singapore	6.0
1.01 Prevalence of foreign ownership, 1-7 (best)	2	6.3	56	4.9	60	4.8	85	4.5	54	4.9	114	4.1	104	4.4	91	4.5	Slovak Republic	6.3
1.02 Property rights, 1-7 (best)	3	6.3	41	5.1	89	3.9	52	4.7	84	4.0	81	4.1	99	3.7	110	3.5	Switzerland	6.4
1.03 Business impact of rules on FDI, 1-7 (best)	1	6.5	31	5.2	39	5.1	70	4.7	49	5.0	29	5.3	98	4.3	37	5.1	Singapore	6.5
1.04 Visa requirements index, 0-163.0 (best)	2	159.0	1	163.0	79	58.5	88	51.5	94	41.0	7	103.0	3	151.0	15	94.5	Malaysia	163.0
1.05 Openness of bilateral Air Service Agreements, index	30	13.0	53	10.7	62	9.9	14	16.7	32	12.9	91	8.0	29	13.1	89	8.1	El Salvador	33.7
1.06 Transparency of government policymaking, 1-7 (best)	1	6.3	37	4.8	63	4.3	88	4.1	91	4.1	73	4.3	123	3.6	125	3.6	Singapore	6.3
1.07 Time required to start a business, days	3	3	69	17	102	32	134	105	119	47	118	44	111	38	132	85	New Zealand	1.0
1.08 Cost to start a business, % of GNI per capita	7	0.7	87	17.5	50	5.6	76	13.5	98	22.3	71	12.1	101	28.7	129	128.3	Multiple (2)	0.0
1.09 GATS commitments in T&T services, index 0-100 (best)	58	59.0	63	54.6	85	48.5	115	—	43	66.7	46	66.2	52	62.3	39	69.1	Namibia	97.1
Environmental sustainability, 1-7 (best)	41	4.9	64	4.6	97	4.2	136	3.6	127	3.9	115	4.1	94	4.2	82	4.3	Sweden	6.3
2.01 Stringency of environmental regulation, 1-7 (best)	14	5.7	39	4.8	63	3.9	47	4.5	75	3.7	134	2.7	105	3.3	106	3.3	Germany	6.6
2.02 Enforcement of environmental regulation, 1-7 (best)	13	5.7	31	4.6	63	3.7	39	4.3	66	3.6	103	3.0	117	2.8	96	3.1	Germany	6.4
2.03 Sustainability of T&T industry development, 1-7 (best)	4	6.1	18	5.3	39	5.0	24	5.1	50	4.7	63	4.6	103	3.7	60	4.6	Rwanda	6.3
2.04 Carbon dioxide emissions, metric tons per capita	121	11.8	96	7.3	72	4.1	131	19.7	52	1.8	41	1.3	31	0.8	18	0.3	Burundi	0.0
2.05 Particulate matter concentration, PM10 (micrograms per m3)	81	40.9	38	22.9	110	70.9	96	54.0	118	82.9	98	55.3	37	22.8	88	45.7	Venezuela	10.5
2.06 Threatened species, %	93	6.2	130	12.9	111	7.7	120	9.4	129	12.8	115	8.7	135	18.5	116	8.9	Luxembourg	0.0
2.07 Environmental treaty ratification, count out of 25	117	15	81	18	108	16	133	11	81	18	108	16	30	21	94	17	Multiple (9)	24.0
Safety and security, 1-7 (best)	13	6.1	83	4.5	94	4.4	23	5.7	72	4.7	68	4.8	109	4.1	79	4.6	Finland	6.5
3.01 Business costs of terrorism, 1-7 (best)	102	5.1	103	5.1	120	4.7	23	6.4	101	5.1	109	5.0	126	4.4	107	5.0	Uruguay	6.8
3.02 Reliability of police services, 1-7 (best)	2	6.4	50	4.6	87	3.8	36	5.1	80	4.0	41	4.9	105	3.4	115	3.2	Finland	6.6
3.03 Business costs of crime and violence, 1-7 (best)	17	6.0	93	4.4	82	4.6	18	6.0	75	4.7	88	4.5	104	4.0	95	4.4	Syria	6.6
3.04 Road traffic accidents, deaths per 100,000 pop.	3	4.8	94	23.6	81	19.6	52	13.8	70	16.2	68	16.1	84	20.0	33	12.1	Malta	3.4
Health and hygiene, 1-7 (best)	55	5.2	75	4.5	80	4.4	70	4.7	115	2.6	89	4.1	97	3.8	133	1.5	Multiple (2)	7.0
4.01 Physician per 100 pop.	69	1.5	96	0.7	108	0.3	86	1.1	119	0.1	100	0.6	84	1.2	113	0.2	Greece	5.4
4.02 Access to improved sanitation, % of pop.	1	100.0	46	96.0	46	96.0	66	90.0	103	52.0	86	75.0	85	76.0	121	29.0	Multiple (36)	100.0
4.03 Access to improved drinking water, % of pop.	1	100.0	1	100.0	51	98.0	39	99.9	107	80.0	68	94.0	80	91.0	124	61.0	Multiple (38)	100.0
4.04 Hospital beds per 10,000 pop.	57	32.0	89	18.0	76	22	72	26	122	6	67	28	127	5	137	1	Japan	139.0
Prioritization of Travel & Tourism, 1-7 (best)	2	6.4	46	4.8	38	4.9	127	3.3	15	5.7	107	4.0	70	4.5	13	5.8	Mauritius	6.4
5.01 Government prioritization of the T&T industry, 1-7 (best)	6	6.6	25	6.1	16	6.3	79	5.2	71	5.3	57	5.6	70	5.3	34	5.9	Rwanda	6.8
5.02 T&T government expenditure, % of total	8	10.2	113	1.7	85	2.7	132	0.7	13	9.0	118	1.4	63	3.6	10	9.3	Dominican Republic	21.3
5.03 Effectiveness of marketing to attract tourists, 1-7 (best)	4	6.1	15	5.5	20	5.5	61	4.6	58	4.6	62	4.5	99	3.8	52	4.8	United Arab Emirates	6.5
5.04 Comprehensiveness of annual T&T data, index 0-68 (best)	58	52	58	52	111	39	125	28	28	60	128	25	55	55	58	52	Multiple (11)	68.0
5.05 Timeliness of providing T&T data, index 0-18 (best)	12	16.5	46	15.5	12	16.5	123	—	12	16.5	89	12.0	66	14.5	12	16.5	Multiple (6)	18.0
Subindex B: T&T Business environment and infrastructure, 1-7 (best)	4	5.4	40	4.4	43	4.3	50	4.1	86	3.3	89	3.3	95	3.2	118	2.7	Switzerland	5.6
Air transport infrastructure, 1-7 (best)	14	5.0	34	4.2	23	4.5	41	4.0	58	3.3	85	2.7	80	2.8	113	2.3	Canada	6.7
6.01 Quality of air transport infrastructure, 1-7 (best)	2	6.9	29	5.9	28	5.9	60	4.9	69	4.6	88	4.2	112	3.6	83	4.3	Hong Kong SAR	6.9
6.02 Domestic available seat kilometers, millions	103	—	14	320.8	19	209.4	103	—	9	833.1	22	188.4	21	197.6	71	1.6	United States	965.2
6.03 International available seat-kilometers, millions	11	1,908.6	21	973.8	12	1,819.3	87	62.1	29	617.8	43	305.1	30	591.1	93	48.0	United States	110.7
6.04 Departures per 1,000 pop.	19	19.3	43	6.5	78	1.9	11	32.8	81	1.5	95	0.9	97	0.8	112	0.3	Luxembourg	92.6
6.05 Airports per mio pop.	93	0.4	36	1.3	91	0.4	18	2.5	102	0.3	113	0.2	87	0.5	125	0.1	Iceland	28.4
6.06 Number of operating airlines	27	55.5	25	59.0	14	89.0	129	5.0	37	45.0	42	41.0	52	36.0	86	17.5	United States	188.0
6.07 International air transport network, 1-7 (best)	1	6.8	28	5.8	22	5.9	64	4.9	76	4.6	101	4.1	83	4.3	96	4.2	Singapore	6.8
Ground transport infrastructure, 1-7 (best)	2	6.6	36	4.6	56	4.1	49	4.2	82	3.2	77	3.3	114	2.8	103	3.0	Hong Kong SAR	6.7
7.01 Quality of roads, 1-7 (best)	1	6.6	21	5.7	36	5.1	33	5.3	84	3.5	117	2.7	114	2.8	73	3.8	Singapore	6.6

Component/Indicator	Singapore		Malaysia		Thailand		Brunei Darussalam		Indonesia		Vietnam		Philippines		Cambodia		Best performer	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Country	Score
7.02 Quality of railroad infrastructure, 1-7 (best)	6	5.8	20	4.7	57	3.0	n/a	n/a	56	3.0	59	2.9	97	1.7	99	1.6	Switzerland	6.8
7.03 Quality of port infrastructure, 1-7 (best)	2	6.8	19	5.6	43	5.0	58	4.5	96	3.6	97	3.6	131	2.8	82	3.0	Hong Kong SAR	6.8
7.04 Quality of ground transport network, 1-7 (best)	4	6.6	29	5.3	41	5.0	118	3.8	88	4.3	69	4.5	131	3.4	109	4.0	Switzerland	6.8
7.05 Road density, km per 100 km2 of land	4	471.7	72	28.2	63	35.2	49	63.0	84	20.0	56	48.6	47	67.0	80	22.0	Malta	704.7
Tourism infrastructure, 1-7 (best)	33	5.1	74	3.6	40	4.9	91	2.8	116	2.0	110	2.1	98	2.6	131	1.4	Multiple (3)	7.0
8.01 Hotel rooms per 100 pop.	37	0.8	48	0.6	53	0.6	43	0.7	93	0.1	89	0.2	132	0.0	80	0.3	Cyprus	4.8
8.02 Presence of major car rental companies, count out of 7	80	4	95	3	40	6	112	2	112	2	112	2	64	5	133	—	Multiple (39)	7.0
8.03 ATMs accepting Visa cards per milio pop.	7	895.8	53	349.7	31	548.2	83	165.1	97	77.5	93	106.2	102	46.7	115	23.2	Korea, Rep.	975.8
ICT infrastructure, 1-7 (best)	20	5.2	52	3.7	81	2.9	47	3.9	96	2.5	67	3.2	98	2.5	123	1.9	Sweden	6.0
9.01 Extent of business Internet use, 1-7 (best)	18	6.0	35	5.4	56	5.1	59	5.0	61	5.0	43	5.3	93	4.5	88	4.5	Sweden	6.6
9.02 Internet users per 100 pop.	26	68.3	39	55.9	83	25.8	14	78.8	109	8.7	81	26.6	106	9.0	137	0.5	Iceland	93.5
9.03 Telephone lines per 100 pop.	26	40.7	75	17.6	91	10.6	67	20.2	82	14.8	68	19.8	102	7.4	136	0.4	Taiwan, China	63.2
9.04 Broadband Internet subscribers per 100 pop.	20	24.7	59	6.1	89	1.5	66	5.0	99	0.7	74	3.6	85	1.9	107	0.2	Denmark	37.9
9.05 Mobile telephone subscribers per 100 pop.	14	145.2	50	109.7	65	97.3	57	103.3	99	69.2	47	111.5	62	100.3	121	42.3	United Arab Emirates	232.1
Price competitiveness in the T&T industry, 1-7 (best)	29	5.1	3	5.6	15	5.2	1	5.8	4	5.6	16	5.2	20	5.2	31	5.1	Brunei Darussalam	5.8
10.01 Ticket taxes and airport charges, index 0-100 (highest=best)	9	95.0	15	93.0	48	82.7	5	95.7	16	92.5	25	88.5	20	90.9	62	80.7	Swaziland	100.0
10.02 Purchasing power parity conversion factor	98	0.72	41	0.50	36	0.49	59	0.53	68	0.56	4	0.36	37	0.49	3	0.35	Gambia, The	0.3
10.03 Extent and effect of taxation, 1-7 (best)	3	5.6	28	4.1	53	3.7	15	4.5	17	4.4	58	3.7	77	3.5	61	3.7	Bahrain	6.1
10.04 Fuel price levels, US cents per liter	64	107	14	53	46	87	11	38	19	60	37	80	53	91	55	94	Venezuela	a 2
10.05 Hotel price index, US\$	78	138.5	11	80.1	8	77.4	n/a	n/a	6	70.8	57	126.1	15	87.5	47	116.9	Gambia, The	34.2
Subindex C: T&T Human, cultural, and natural resources, 1-7 (best)	23	4.6	18	4.7	21	4.6	63	3.9	40	4.4	46	4.1	75	3.7	81	3.7	United States	5.5
Human resources, 1-7 (best)	2	6.1	37	5.2	74	4.8	47	5.1	51	5.0	72	4.9	86	4.7	109	4.3	Switzerland	6.2
11.01 Primary education enrollment, %	43	96.8	47	96.1	94	90.1	74	92.9	52	95.7	69	94.0	80	91.7	103	88.6	Costa Rica	100.0
11.02 Secondary education enrollment, %	18	103.0	100	68.2	95	75.6	34	98.2	97	74.4	102	66.9	83	82.5	120	40.4	Australia	149.3
11.03 Quality of the educational system, 1-7 (best)	1	6.1	23	4.9	66	3.7	31	4.5	40	4.3	61	3.8	69	3.7	82	3.4	Singapore	6.1
11.04 Availability of research and training services, 1-7 (best)	19	5.3	25	5.0	69	4.1	115	3.2	52	4.4	104	3.4	77	4.0	111	3.3	Switzerland	6.5
11.05 Extent of staff training, 1-7 (best)	4	5.5	13	5.0	62	4.1	60	4.1	36	4.4	58	4.1	46	4.3	92	3.7	Sweden	5.7
11.06 Hiring and firing practices, 1-7 (best)	2	5.9	50	4.2	31	4.5	37	4.4	38	4.4	34	4.5	116	3.2	45	4.2	Hong Kong SAR	6.0
11.07 Ease of hiring foreign labor, 1-7 (best)	8	5.1	77	4.0	85	3.9	98	3.7	35	4.5	60	4.2	117	3.5	40	4.5	United Arab Emirates	5.9
11.08 HIV prevalence, % of adult population	20	0.1	88	0.5	114	1.3	1	0.0	56	0.2	79	0.4	1	n/a	88	0.5	Montenegro	0.0
11.09 Business impact of HIV/AIDS, 1-7 (best)	47	5.8	93	4.8	106	4.4	77	5.2	95	4.7	84	5.0	83	5.0	114	3.9	Norway	6.7
11.10 Life expectancy, years	7	81	64	73	87	70	38	76	100	67	64	73	87	70	111	62	Japan	83.0
Affinity for Travel & Tourism, 1-7 (best)	12	5.7	17	5.4	24	5.3	78	4.5	121	4.2	87	4.5	65	4.6	21	5.3	Lebanon	6.8
12.01 Tourism expenditures and receipts, % of GDP	15	13.7	18	11.5	35	7.6	44	7.0	115	2.1	77	4.5	102	3.0	16	11.8	Lebanon	31.2
12.02 Attitude of population toward foreign visitors, 1-7 (best)	9	6.7	58	6.3	8	6.7	99	6.0	113	5.9	97	6.1	40	6.4	65	6.3	New Zealand	6.9
12.03 Extension of business trips recommended, 1-7 (best)	46	5.6	38	5.7	17	6.0	114	4.6	93	5.1	83	5.2	40	5.7	70	5.4	France	6.7
Natural resources, 1-7 (best)	96	2.6	22	4.5	21	4.6	38	4.0	17	4.7	51	3.6	70	3.3	53	3.5	Brazil	6.4
13.01 Number of World Heritage natural sites	75	—	24	2.0	24	2.0	75	—	10	4.0	24	2.0	24	2.0	75	—	Australia	15.0
13.02 Protected areas, % of total area	109	3.5	41	14.5	30	16.9	9	28.4	85	6.4	98	4.9	112	3.3	19	22.2	Venezuela	50.2
13.03 Quality of the natural environment, 1-7 (best)	21	5.5	42	4.9	76	4.2	20	5.5	100	3.7	132	3.0	93	3.8	85	4.0	Sweden	6.8
13.04 Total known species	80	454	23	1,253	17	1,370	62	595	4	2,605	22	1,261	40	861	50	717	Brazil	172
Cultural resources, 1-7 (best)	30	3.9	33	3.8	32	3.9	91	1.8	39	3.5	36	3.6	76	2.2	111	1.6	Sweden	6.6
14.01 Number of World Heritage cultural sites	122	—	89	2	73	3	122	—	29	8	25	9	53	5	62	4	China	63.0
14.02 Sports stadiums per million pop.	73	31,150.1	66	34,420.6	106	9,689.5	31	75,058.7	114	6,468.4	121	4,399.6	123	3,359.2	122	3,377.2	Ireland	108.0
14.03 Number of international fairs and exhibitions	23	129.0	32	100.0	30	106.0	104	3.0	43	41.0	52	29.7	47	35.3	99	3.3	United States	627.7
14.04 Creative industries exports, % of world total	20	1.2	26	0.9	19	1.2	128	—	29	0.7	28	0.8	47	0.1	100	0.0	China	20.8

Appendix B: List of indicators with short descriptions and sources

This Appendix presents a short description and a list of sources for each indicator as well as a brief methodological note. The interested reader will find a detailed statistical compendium for all the 139 economies in *The Travel & Tourism Competitiveness Report 2011* available at www.weforum.org/ttcr. Additional information included in the full *Report* includes the year of each individual data point and detailed methodological notes for all indicators.

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] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

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] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

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] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.04 Visa requirements

Number of countries whose citizens are exempt from obtaining a visa (= 1) or able to obtain one upon arrival (= 0.5) out of all UN countries | 2010

1.05 Openness of bilateral Air Service Agreements

Index measuring the average openness of Air Service Agreements | 2005

Source: World Trade Organization

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] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.07 Time required to start a business

Number of days required to start a business | 2010

Source: The World Bank, *Doing Business 2010*

1.08 Cost to start a business

Cost to start a business as a percentage of GNI per capita | 2010

Source: The World Bank, *Doing Business 2010*

1.09 GATS commitments restrictiveness index of T&T services

GATS commitments restrictiveness index of T&T services | 2006–09

Source: World Trade Organization

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] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

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] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

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] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

2.04 Carbon dioxide emissions

Carbon dioxide emissions per capita in metric tons | 2007

Source: The World Bank, *World Development Indicators 2010*

2.05 Particulate matter concentration

Urban population-weighted PM₁₀ micrograms per cubic meter | 2006

Source: The World Bank, *World Development Indicators 2010*

2.06 Threatened species

Threatened species as a percentage of total species (mammals, birds, amphibians) | 2010

Source: The International Union for Conservation of Nature (IUCN), Red List of Threatened Species 2010

2.07 Environmental treaty ratification

Total number of ratified environmental treaties | 2010

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 terrorism
To what extent does the threat of terrorism impose costs on businesses in your country? [1 = significant costs; 7 = no costs] | 2009–10 weighted average
Source: World Economic Forum, Executive Opinion Survey 2009, 2010
- 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 on at all; 7 = can always be relied on] | 2009–10 weighted average
Source: World Economic Forum, Executive Opinion Survey 2009, 2010
- 3.03 Business costs of crime and violence
To what extent does the incidence of crime and violence impose costs on businesses in your country? [1 = significant costs, 7 = no costs] | 2009–10 weighted average
Source: World Economic Forum, Executive Opinion Survey 2009, 2010
- 3.04 Road traffic accidents
Estimated deaths due to road traffic accidents per 100,000 population | 2007
Source: World Health Organization, *World Health Statistics 2010*

Pillar 4: Health and hygiene

- 4.01 Physician density
Physician density per 1,000 people | 2007
Source: World Health Organization, *World Health Statistics 2010*; The World Bank, *World Development Indicators 2010*; national sources
- 4.02 Access to improved sanitation
Access to adequate sanitation as a percentage of total population | 2008
Source: World Health Organization, *World Health Statistics 2010*
- 4.03 Access to improved drinking water
Access to safe drinking water as a percentage of total population | 2008
Source: World Health Organization, *World Health Statistics 2010*
- 4.04 Hospital beds
Hospital beds per 10,000 population | 2007
Source: World Health Organization, *World Health Statistics 2010*; national sources

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] | 2009–10 weighted average
Source: World Economic Forum, Executive Opinion Survey 2009, 2010
- 5.02 T&T government expenditure
T&T government expenditure as a percentage of total budget | 2009
Source: World Travel & Tourism Council, Tourism Satellite Accounting Research 2010

- 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] | 2009–10 weighted average
Source: World Economic Forum, Executive Opinion Survey 2009, 2010
- 5.04 Comprehensiveness of annual T&T data
Comprehensiveness of annual T&T data | 2005–08
Source: United Nations World Tourism Organization
- 5.05 Timeliness of providing monthly/quarterly T&T data
Timeliness of providing monthly/quarterly T&T data | October 2009–September 2010
Source: United Nations World Tourism Organization

Pillar 6: Air transport infrastructures

- 6.01 Quality of air transport infrastructure
How would you assess passenger air transport infrastructure in your country? [1 = extremely underdeveloped; 7 = extensive and efficient by international standards] | 2009–10 weighted average
Source: World Economic Forum, Executive Opinion Survey 2009, 2010
- 6.02 Available seat kilometers, domestic
Scheduled available domestic seat kilometers per week originating in country (in millions) | January and July 2010 average
Source: International Air Transport Association, SRS Analyser; national sources
- 6.03 Available seat kilometers, international
Scheduled available international seat kilometers per week originating in country (in millions) | January and July 2010 average
Source: International Air Transport Association, SRS Analyser; national sources
- 6.04 Departures per 1,000 population
Number of departures per 1,000 population | 2008
- 6.05 Airport density
Number of airports per million population | 2010
Source: International Air Transport Association, SRS Analyser; national sources
- 6.06 Number of operating airlines
Number of airlines with scheduled flights originating in country | 2010
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] | 2009–10 weighted average
Source: World Economic Forum, Executive Opinion Survey 2009, 2010

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] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

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] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

7.03 Quality of port infrastructure

How would you assess port facilities in your country?* [1 = extremely underdeveloped; 7 = well developed and efficient by international standards]

* Landlocked countries: How accessible are port facilities? [1 = extremely inaccessible; 7 = extremely accessible] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

7.04 Quality of ground transport network

To what extent does your country's national ground transport network (buses, trains, taxis, etc.) offer efficient, accessible transportation to key business centers and tourist attractions within your country? [1 = not at all; 7 = extremely well] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

7.05 Road density

Kilometers of road per 100 square kilometers of land | 2007

Source: The World Bank, *World Development Indicators 2010*

Pillar 8: Tourism infrastructure

8.01 Hotel rooms

Number of hotel rooms per 100 population | 2009

Source: United Nations World Tourism Organization

8.02 Presence of major car rental companies

Index of presence of major car rental companies | 2010

Source: Individual rental car websites

8.03 ATMs accepting Visa cards

Number of automated teller machines (ATMs) accepting Visa credit cards per million population | 2010

Source: Visa

Pillar 9: ICT infrastructure

9.01 Extent of business Internet use

To what extent do companies within your country use the Internet in their business activities (e.g., buying and selling goods, interacting with customers and suppliers)? [1 = not at all; 7 = extensively] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

9.02 Internet users

Internet users per 100 population | 2009

Source: International Telecommunications Union, *World Telecommunication Indicators 2010*

9.03 Telephone lines

Telephone lines per 100 population | 2009

Source: International Telecommunications Union, *World Telecommunication Indicators 2010*

9.04 Broadband Internet subscribers

Broadband Internet subscribers per 100 population | 2009

Source: International Telecommunications Union, *World Telecommunication Indicators 2010*

9.05 Mobile telephone subscribers

Mobile telephone subscribers per 100 population | 2009

Source: International Telecommunications Union, *World Telecommunication Indicators 2010*

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] | 2010

Source: International Air Transport Association, SRS Analyser

10.02 Purchasing power parity

Ratio of purchasing power parity (PPP) conversion factor to official exchange rate | 2009

Source: The World Bank, *World Development Indicators 2010*; International Monetary Fund, *International Financial Statistics* (November 2010), Federal Reserve of New York and author's calculations

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] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

10.04 Fuel price levels

Retail diesel fuel prices (US cents per liter) | 2008

Source: The World Bank, *World Development Indicators 2010*

10.05 Hotel price index

Average room rates calculated for first-class branded hotels for calendar year, in US dollars | 2009

Source: Deloitte

Pillar 11: Human resources

11.01 Primary education enrollment

Net primary education enrollment rate | 2008

Source: UNESCO, Institute for Statistics (2010); national sources

11.02 Secondary education enrollment

Gross secondary education enrollment rate | 2009

Source: UNESCO, Institute for Statistics (2010); national sources

11.03 Quality of the educational system
[How well does the educational system in your country meet the needs of a competitive economy? \[1 = not well at all; 7 = very well\] | 2009–10 weighted average](#)
Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.04 Local availability of specialized research and training services
[In your country, to what extent are high-quality, specialized training services available? \[1 = not available; 7 = widely available\] | 2009–10 weighted average](#)
Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.05 Extent of staff training
[To what extent do companies in your country invest in training and employee development? \[1 = hardly at all; 7 = to a great extent\] | 2009–10 weighted average](#)
Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.06 Hiring and firing practices
[How would you characterize the hiring and firing of workers in your country? \[1 = impeded by regulations; 7 = flexibly determined by employers\] | 2009–10 weighted average](#)
Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.07 Ease of hiring foreign labor
[To what extent does labor regulation in your country limit the ability to hire foreign labor? \[1 = very much limits hiring foreign labor; 7 = does not limit hiring foreign labor at all\] | 2009–10 weighted average](#)
Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.08 HIV prevalence
[HIV prevalence as a percentage of adults aged 15–49 years | 2009](#)
Source: UNAIDS, *2010 Report on the Global AIDS Epidemic*;

11.09 Business impact of HIV/AIDS
[How serious an impact do you consider the HIV/AIDS will have on your company in the next five years \(e.g., death, disability, medical and funeral expenses, productivity and absenteeism, recruitment and training expenses, revenues\)? \[1 = a serious impact; 7 = no impact at all\] | 2009–10 weighted average](#)
Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.10 Life expectancy
[Life expectancy at birth \(years\) | 2008](#)
Source: World Health Organization, *World Health Statistics 2010*, national sources

Pillar 12: Affinity for Travel & Tourism

12.01 Tourism openness
[Tourism expenditure and receipts as a percentage of GDP | 2009](#)
Source: United Nations World Tourism Organization

12.02 Attitude of population toward foreign visitors
[How welcome are foreign visitors in your country? \[1 = very unwelcome; 7 = very welcome\] | 2009–10 weighted average](#)
Source: World Economic Forum, Executive Opinion Survey 2009, 2010

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? \[1 = very unlikely; 7 = very likely\] | 2009–10 weighted average](#)
Source: World Economic Forum, Executive Opinion Survey 2009, 2010

Pillar 13: Natural resources

13.01 Number of World Heritage natural sites
[Number of World Heritage natural sites in the country | 2010](#)
Source: UNESCO, World Heritage Centre (November 2010)

13.02 Protected areas
[Protected areas as a percentage of total land area | 2010](#)
Source: The International Union for Conservation of Nature (IUCN) and UNEP World Conservation Monitoring Centre *World Database on Protected Areas*

13.03 Quality of the natural environment
[How would you assess the quality of the natural environment in your country? \[1 = extremely poor; 7 = among the world's most pristine\] | 2009–10 weighted average](#)
Source: World Economic Forum, Executive Opinion Survey 2009, 2010

13.04 Total known species
[Total known species \(mammals, birds, amphibians\) in the country | 2010](#)
Source: The International Union for Conservation of Nature (IUCN), Red List of Threatened Species 2010

Pillar 14: Cultural resources

14.01 Number of World Heritage cultural sites
[Number of World Heritage cultural sites and Oral & Intangible Heritage | 2010](#)
Source: UNESCO, World Heritage Centre; UNESCO, Intangible Cultural Heritage (November 2010)

14.02 Sports stadiums
[Sports stadium capacity per million population | 2010](#)
Source: Booz & Company

14.03 Number of international fairs and exhibitions
[Number of international fairs and exhibitions held in the country annually | 2007–09 average](#)
Source: International Congress and Convention Association



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