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MANAGING OVERCROWDING IN TOURISM DESTINATIONS

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FOREWORD

The Travel & Tourism (T&T) sector is a cornerstone of our global economy—and thanks to a growing middle class, improved digital and physical connectivity, and generations of people with an insatiable appetite to explore the world, it is expanding rapidly. Of course, this growth is accompanied by challenges, many of which can be summed up with the term “overcrowding.” Overcrowding is by no means new—but it seems to be coming to a head in popular destinations across the globe.

As we set out to study overcrowding in tourism destinations, we had no illusions about the challenges we faced, including the following:

- **Overcrowding is a complex issue.** The problems associated with overcrowding can vary, from alienated local residents to overloaded infrastructure. The issues can affect both established and emerging destinations of all kinds. Countries, regions, cities, and individual sites, such as parks, beaches, and museums, may all be affected. The challenge is sometimes one of time, driven by high levels of seasonality or day visitors. Some destinations struggle to absorb crowds of domestic visitors, others face an influx of international visitors, and still others experience both. In short, the symptoms of overcrowding vary from place to place.
- **Diverse interests are involved.** Stakeholders include governments, comprised of elected officials and national, regional, and local agencies; tourism management and promotion agencies; commercial organizations, ranging from multinational corporations to locally owned small businesses; those employed in the sector; local residents; nonprofit and social sector organizations; and, finally, tourists themselves. Given the diversity of these stakeholders’ objectives and interests, not all solutions work for everyone.
- **Thorny questions of ethics and values are embedded.** “Value over volume” is a focus for many destinations. But is it reasonable to reduce visitor numbers to a more sustainable level if that action also makes the destination accessible only to the wealthy? What of the view, espoused by some, that travel is a basic right? These are difficult questions, and we cannot presume to answer them on anyone’s behalf. But neither can we ignore them.

Our research, including discussions with tourism leaders around the world, reinforced our conviction that these challenges are real. It also confirmed that the challenges associated with overcrowding cannot be solved with a “one size fits all” approach.

In this report, we aim to provide a toolkit—context, best practices, and tactics to consider—to help destination leaders and planners develop their own approach and build a path forward. Sites, cities, regions, and countries can reap the benefits of tourism while preserving the unique qualities that make them worth visiting in the first place. Regardless of the individual tactics, destinations must continually engage all stakeholders. Managing overcrowding is a journey, not an end point, and engaging the interested parties along the way matters just as much as the actual actions taken.

It is in this spirit of engagement that we have embarked upon this research. Recognizing that the solutions are complex, and that only collaboration between different interest groups will allow destinations to begin to address the challenges, we have strived to adopt a broad perspective. This report is not a private-sector wish list; some of the tactics described have drawn criticism from businesses and operators when taken in destinations to date. This report is also not a checklist of actions to be taken only by government; some of the tactics involve, for example, private-sector funding and product development. Indeed, companies must take responsibility for destination stewardship and engage with governments to facilitate and encourage sustainable tourism planning rather than waiting on the sideline for others to effect change.

This work is only the beginning; the research is a starting point for ongoing conversations. To solve this challenge, leaders must be willing to identify and address the barriers (including beliefs, norms, and structures) that are holding us back from effectively managing overcrowding. And they must look for ways to compromise: when overcrowding goes too far, the repercussions are difficult to reverse.



A handwritten signature in black ink that reads "Alex Dichter".

Alex Dichter
Senior Partner, McKinsey

A handwritten signature in black ink that reads "Gloria G." with a large flourish.

Gloria Guevara Manzo
President and CEO, World
Travel & Tourism Council

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EXECUTIVE SUMMARY

Travel & Tourism (T&T) is one of the world's fastest-growing sectors. In 2017, T&T will contribute nearly \$7.9 trillion to the global economy, or 10.2 percent of global gross domestic product (GDP).¹ But while some places capture a significant share of the T&T pie, others barely get a nibble. Moreover, some destinations are in danger of being loved to death. After all, it is hard to maintain a sense of wonder before Michelangelo's *Pieta* when elbow to elbow with strangers.

With the world getting richer—one billion more people will be in the global middle class by 2030²—and travel becoming ever more accessible, T&T will continue to grow. More places will likely be threatened by their own popularity in environmental, social, or aesthetic terms. Some governments are taking action. The number of visitors to Iceland nearly quadrupled from 2010 to 2016,³ leading the government to limit access to some fragile natural resources because of concerns about environmental damage.⁴ In 2016, the government of Thailand, citing the effects of too many people, banned public access to three popular islands: Koh Khai Naiin, Koh Khai Nok, and Koh Khai Nui.⁵ So it is fair to ask: Could overcrowding threaten more of the world's natural and cultural wonders?

The term “overcrowded” is imprecise, and the world's great attractions draw crowds for a reason. We would not want to dampen the expression of human curiosity that is the basis of tourism. Still, industry players—and travelers themselves—widely acknowledge the problem. To date, little has been done to systematically understand and address it. Why?

Overcrowding is not exactly alike in any two destinations. We focus on five types of problems associated with tourist overcrowding: alienated local residents, a degraded tourist experience, overloaded infrastructure, damage to nature, and threats to culture and heritage. Some places endure two or more of these problems at the same time, but once localities determine their most important issues, they can select the most suitable solutions.

Overcrowding is currently more a matter of sensibility than data. Not everyone will agree when popularity tips into overcrowding. To provide an empirical foundation for destinations and help local leaders assess their situation and identify vulnerabilities, we created a diagnostic based on simple, widely available indicators, including tourist arrivals, social media reviews, seasonality, and pollution.

Overcrowding is easier to prevent than to recover from. Good tourism management practices and stringent planning are key to the sustainable development of tourism. Our research and interviews with tourism experts highlighted the following four best practices—regardless of whether a destination is facing overcrowding:

- 1. Build a comprehensive fact base and update it regularly.** Countries, regions, cities, and sites must begin by gathering detailed data and developing their analytics capabilities to inform and refine tourism strategies.
- 2. Conduct rigorous, long-term planning to encourage sustainable growth.** Destinations need to shift their focus from promotion to broader planning and management challenges. Those with a clear, long-term strategy built upon a solid fact base are more likely to achieve sustainable growth and mitigate—or even prevent—overcrowding.
- 3. Involve all sections of society—commercial, public, and social.** The perfect data and strategy can only work if all stakeholders are engaged throughout the process. Tourism authorities should create committees and other formal mechanisms to work with stakeholders, including local communities, to discuss problems and devise solutions.
- 4. Find new sources of funding.** Once data, strategy, and stakeholders are aligned, destinations can explore a growing number of innovative approaches to finance investments in infrastructure and sustainability.

There is no easy fix to overcrowding. Once destinations have sorted out the fact base, strategy, stakeholders, and funding, they must then identify and execute practical actions, both for the long and the short term. Among the possibilities:

1. **Smooth visitors over time.** Many destinations suffer from imbalances of visitors during certain seasons, days of the week, and times of day, as well as during headline events. Destinations must develop tactics to “smooth” these imbalances so communities and businesses can continue to reap the benefits of tourism.
2. **Spread visitors across sites.** Spreading visitors geographically can help distribute tourists more evenly across residential and under-visited areas and thwart bottlenecks in overcrowded locations.
3. **Adjust pricing to balance supply and demand.** Pricing can be an effective way to better align demand with supply. But while increasing the costs of visiting a destination or site is likely to limit the number of visitors, it also raises considerations of elitism and the ability of domestic tourists to access their own heritage.
4. **Regulate accommodation supply.** Some destinations place direct controls on the supply of tourism accommodation—including beds in both hotels and short-term rentals.
5. **Limit access and activities.** When overcrowding reaches a critical stage, the tactics above may not be enough to mitigate or recover from it. As such, some destinations are limiting or even banning certain tourist activities.

The findings in this report build on our analysis of tourism data as well as research on specific destinations and dozens of interviews with tour operators, tourism authorities, hospitality providers, airlines, nongovernmental organizations (NGOs), academics, and think tanks.

Each destination needs to develop, implement, and monitor its own set of solutions, but it need not start from scratch. We hope this report provides the global tourism community with a starting point for this journey.



1.



Paris, France

THE UNEVEN ECONOMICS OF TOURISM

The good news is that tourism is growing, creating jobs and economic activity. The challenge is that this growth can put pressure on destinations.

Let's start with the good news. Travel & Tourism (T&T) is a substantial contributor to global prosperity. According to the World Travel and Tourism Council (WTTTC) *Travel & Tourism Global Economic Impact & Issues 2017* report, T&T will directly account for 3 percent (or \$2.4 trillion) of total global GDP in 2017, and this percentage could reach nearly 3.5 percent (or \$3.5 trillion) by 2027. "Direct spending" refers to expenditures such as hotel charges, ticket fees, and government spending on visitor services, such as support for museums.

In addition, there are the sector's indirect contributions, such as food purchases by hotels. And finally, there are knock-on or "induced" effects related to the economic contributions of those employed in the sector. Adding it all up, WTTTC estimates that T&T accounts for 10.2 percent of global GDP (\$7.9 trillion), and that this figure will rise to 11.4 percent (\$11.5 trillion) by 2027.

The T&T sector is also a major employer, accounting for 292 million jobs in 2016, or nearly 10 percent of global employment (Exhibit 1); by 2027, WTTTC estimates the sector's employment could rise to 380 million jobs. Last year, almost one in five of all new jobs created were linked to tourism. Given the sector's breadth and scale, it is neither possible nor desirable to shut it down or even to curtail it greatly. Dealing with its challenges therefore requires solutions that are nuanced and balanced so local economies can reap the benefits of tourism while minimizing the negative effects.

Exhibit 1: Tourism accounts for a significant share of global employment.

Share of employment in tourism (2016), percent

	Direct	Indirect or induced	
Caribbean	4.2	9.2	13.4
Oceania	4.9	8.3	13.2
North America	4.6	6.4	11.0
Europe	3.7	6.0	9.7
Southeast Asia	3.6	6.1	9.7
Global	3.6	6.0	9.6
North Africa	4.0	5.0	9.0
Northeast Asia	2.9	5.8	8.7
South Asia	5.0	3.3	8.3
Latin America	2.9	4.9	7.8
Middle East	3.1	4.5	7.6
Sub-Saharan Africa	2.4	3.6	6.0
Central Asia	1.9	3.2	5.1

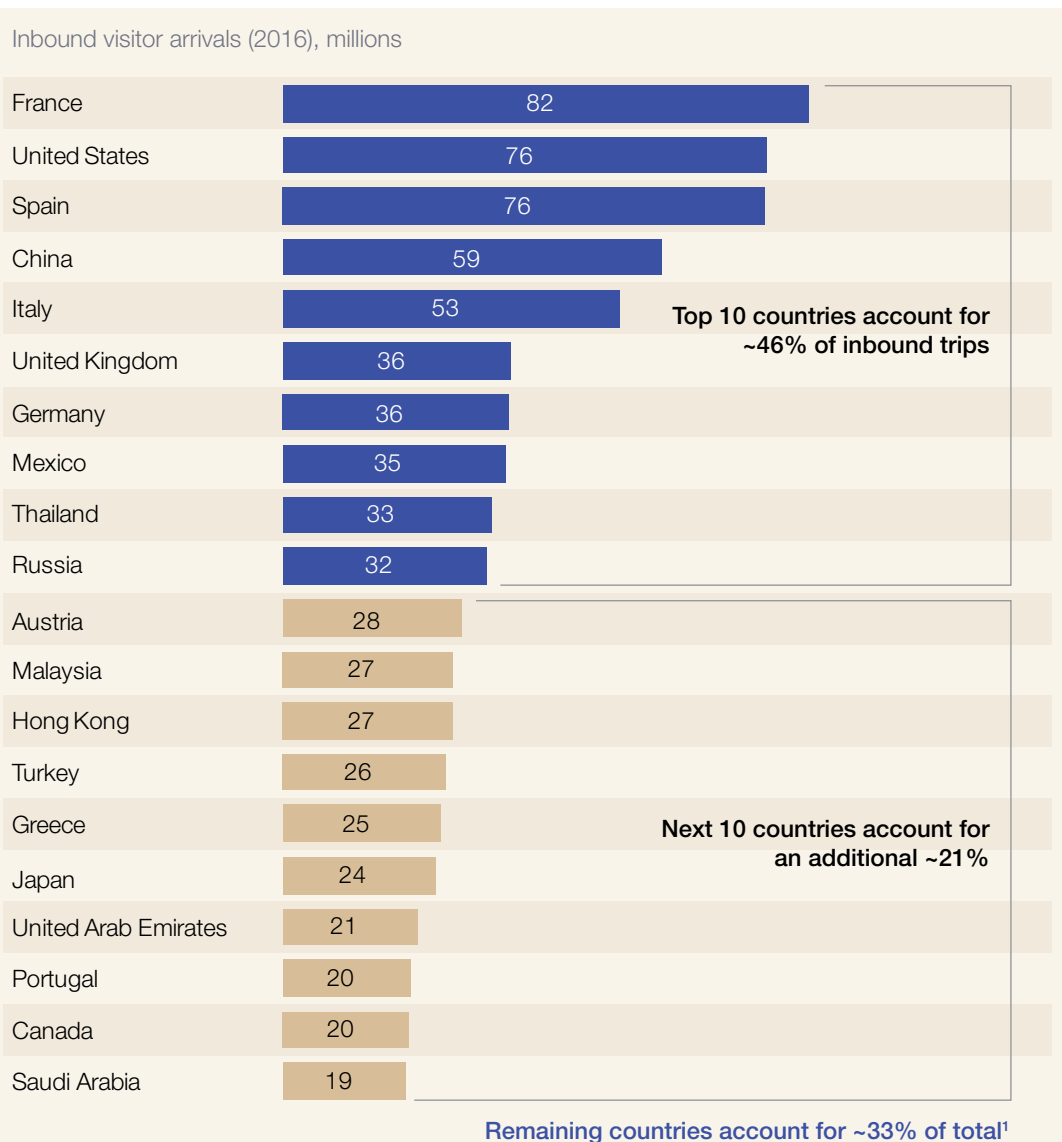
SOURCE: WTTTC *Travel & Tourism Economic Impact 2017* Region League Table Summary

Domestic tourism accounts for 72 percent of the total contribution of tourism to GDP, but the number of domestic arrivals is difficult to track.⁶ International tourist arrivals, however, are counted systematically; on that basis, we believe this indicator is a helpful, if imperfect, way to get a sense of how tourism is developing. According to the UN World Tourism Organization (UNWTO), international tourist arrivals will grow 3.3 percent a year from 2010 to 2030 to more than 1.8 billion arrivals⁷—much faster than projected population growth.⁸

A lopsided picture

If travelers spread out evenly across the planet, this influx would be relatively easy to absorb. Of course, that is not the case. France, the most visited country in the world, drew 82 million international arrivals in 2016; neighboring Germany got less than half that and Portugal a quarter.⁹ Looking more broadly, the top ten countries (by number of international leisure and business arrivals) accounted for 46 percent of inbound visitors, and the next ten countries another 21 percent (Exhibit 2).

Exhibit 2: The top 20 countries account for almost two-thirds of all arrivals.



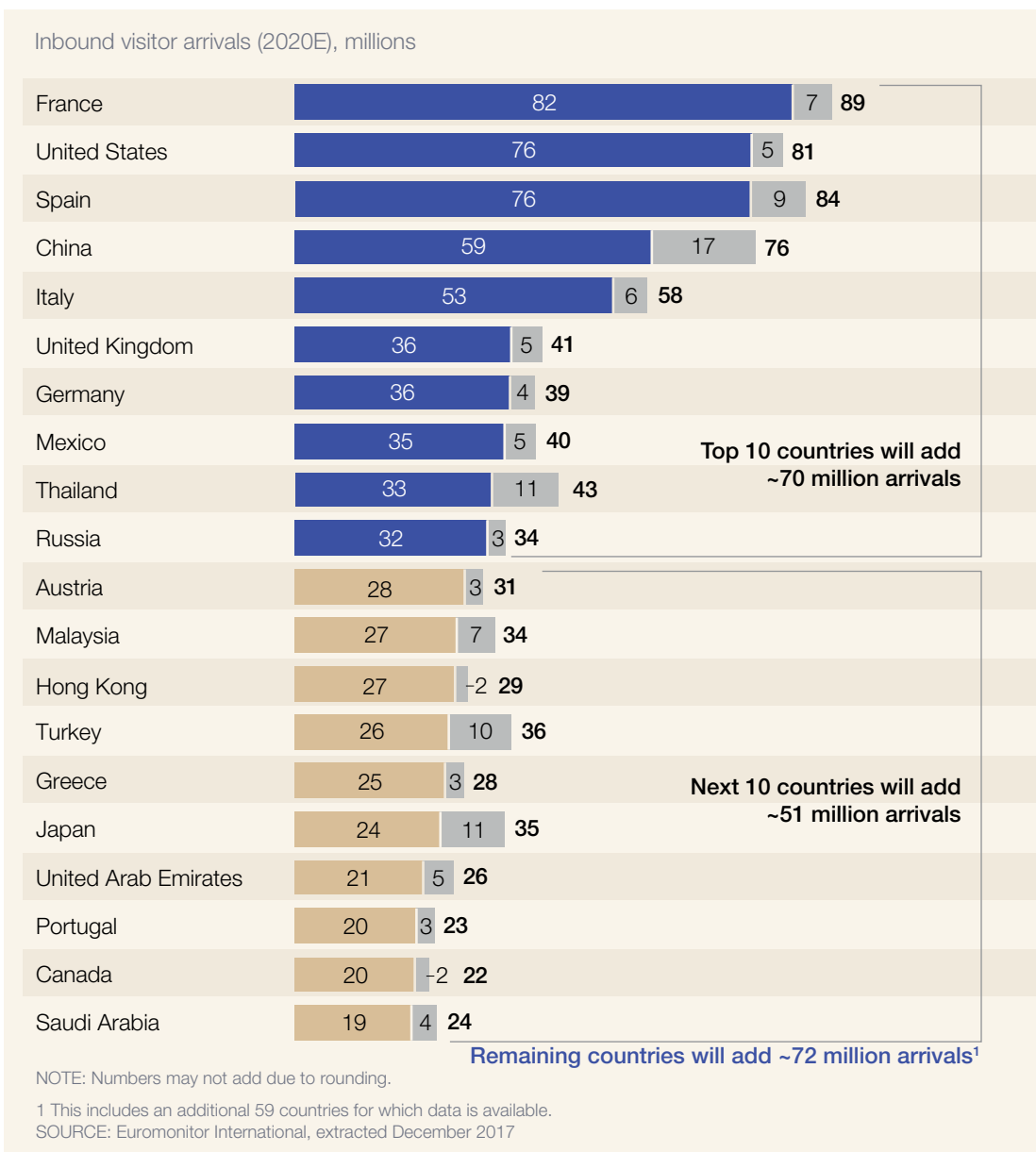
¹ This includes an additional 59 countries for which data is available.
SOURCE: Euromonitor International, extracted December 2017

This concentration of international travelers in a handful of countries is likely to continue. By 2020, Euromonitor projects the top 20 countries will add an additional 121 million arrivals, while the remaining 59 countries for which we have data will add around 72 million arrivals combined (Exhibit 3).

Tourism is also uneven within countries. Paris welcomes triple the number of visitors per capita as the Champagne region.¹⁰ New Zealand’s Canterbury region, home to Mount Cook and Lake Tekapo, receives nearly double the visitors per capita as Auckland.¹¹ The same dynamic can be observed at sites within a destination: Chicago’s Lincoln Park Zoo attracted 3.6 million visitors in 2016, while just four miles away the National Museum of Puerto Rican Arts brought in fewer than 25,000.¹²

Time can create imbalances, as visitors do not disperse evenly across the year. During China’s “Golden Week” in October, more than 700 million locals hit the road.¹³ If visitors want to see New

Exhibit 3: By 2020, the top 20 most popular destinations will add more visitors than the rest of the world combined.



England's glorious autumn foliage, they have about a three-week window to do so. Not only can seasonality be a burden on the destination, it's also no fun for many travelers, who find that long queues and jostling people mean that their experiences do not match their expectations.

The dynamics of growth

Each of the four major reasons for the growth of global tourism—affluence, demographic shifts, convenience, and awareness—has the potential to contribute to overcrowding in its own way.

Affluence

The growing middle class in many countries means that more people have money to travel. Visa, the credit card company, projects that by 2025, more than 280 million households will be traveling internationally each year.¹⁴ India and China alone will create more than 900 million new members of the global middle and upper classes between 2015 and 2025.¹⁵ Many travelers from these countries prefer to take shorter trips; in the Maldives, for example, Chinese visitors stay an average of three to four days, less than the overall visitor average of six days.¹⁶ Thus the travel patterns of these visitors tend to take the form of a “bucket list” approach focused on the most accessible and renowned sites.

Demographic shifts

The millennial generation—defined as those born between the early 1980s and the end of the 1990s—are beginning to enter their peak earning years and are using this income to travel differently than previous generations. Millennials are already traveling in significant numbers, and these numbers are likely to grow.¹⁷ One report found that 72 percent of US millennials plan to take more trips next year, compared with 59 percent of Gen Xers and 40 percent of baby boomers.¹⁸ The same report found that millennials are more likely than previous generations to use social media and technology. On the one hand, this could lead to them choosing to have nontraditional travel experiences, which they say they value,¹⁹ and thus lead them away from the most-popular destinations. On the other hand, it may nudge them toward already-crowded sites, given their ability to quickly check and navigate reviews.



In addition, given longer life expectancies, more people will be able to travel for more years.²⁰ Visa projects that the number of trips made by travelers aged 65 and up will double from 2015 to 2025, to 180 million.²¹

Convenience

The use of online travel research and booking tools, paired with continued supply growth, such as home-sharing services, is opening new opportunities and destinations. Almost two-thirds of leisure travelers use online resources.²² At the same time, travel is becoming more affordable; in the United States, for example, domestic air fares fell 44 percent (in inflation-adjusted terms) from 1980 to 2016.²³ Globally, the number of annual air passenger journeys is projected to grow 3.7 percent per year through 2035.²⁴

Awareness

Rating and review sites, social media, destination rankings, and other channels are creating and reinforcing interest in travel, particularly to top destinations and the most popular sites. Online reviews (similar to visitor counts) tend to be concentrated on the most famous attractions; in Stockholm, for example, the top five attractions account for 42 percent of TripAdvisor reviews. The median across the 68 cities in our diagnostic was 30 percent. In addition, for endangered destinations such as the Great Barrier Reef, awareness of the threat can lead more people to visit “while they still can,” which can exacerbate the problem.



The T&T sector is booming. But the effects, both positive and negative, are unevenly distributed, with several of the world’s prized cities and destinations feeling particular strain under the weight of tourist footfall. Leaders and citizens in these destinations can tell they are overcrowded or on the verge of it—but many destinations are struggling with how to quantify the symptoms.



2.



Marrakech, Morocco



DIAGNOSING THE PROBLEM: FIVE CHALLENGES ASSOCIATED WITH OVERCROWDING

As almost any traveler can attest, the world has many destinations whose appeal, or even essence, is being undermined by overcrowding. A cursory look at social-media sites associated with tourism reveals a deep undercurrent of dissatisfaction. The tourism sector's trade press has noticed the problem, and so have local and international media. Addressing overcrowding requires going deeper to define the problem and understanding the dynamics at play.

On the basis of our research, and after extensive interviews with sector leaders, we have identified five major problems associated with tourist overcrowding: alienated local residents, degraded tourist experiences, overloaded infrastructure, damage to nature, and threats to culture and heritage.

1. Alienated local residents
2. Degraded tourist experience
3. Overloaded infrastructure
4. Damage to nature
5. Threats to culture and heritage

Alienated local residents

Local residents voice a number of concerns about tourism, including rising rents, noise, displacement of local retail, and changing neighborhood character. Local economies also may not retain 100 percent of tourist spending; the leakage of these economic benefits can further fuel resident disgruntlement. In Hawaii, more than half of residents surveyed said that the state is being run for the benefit of tourists at the expense of residents.²⁵ In Barcelona, one of the first cities to elect a mayor who ran on a platform of managing overcrowding,²⁶ residents complain of rising rents and rowdy tourists taking over the city center.²⁷

In Venice, tourists are actually displacing locals. In just 30 years, the city's population was cut in half, to 55,000,²⁸ and locals continue moving to the mainland to escape the tourist influx—a phenomenon known as the “Ven-exodus.”²⁹ On a given day, tourists outnumber residents.³⁰ Local resentment has sometimes boiled over; in 2016, locals held protests against the massive cruise ships that dwarfed the historic Doge's Palace.³¹

Degraded tourist experience

In many places, the tourist experience itself is deteriorating due to queues, crowding, or simply annoyance. The Eiffel Tower is well known for its lengthy wait. (An online ticket booking system has been introduced to help alleviate the situation.) One has only to see the crowds jammed against the velvet rope in front of the *Mona Lisa* to wonder if this is really the ideal way to view an artistic masterpiece.

Overloaded infrastructure

Given that the infrastructure used by tourists is shared with essential nontourism activities, such as commerce, hygiene, and commuting, visitors add to the wear and tear and create challenges in terms of energy consumption and waste management. In the Philippines, issues with roads, bridges, and airports limit tourism growth; at the same time, the presence of tourists contributes to power failures and water shortages.³² India's beautiful city of Jaisalmer has seen tourism grow sharply—which has been good for the local economy, but the sewage system has not been able to keep up, and leaks threaten the integrity of the classical sandstone.³³ Litter left behind by thoughtless visitors scars the vista of the nearby Thar Desert.³⁴



Damage to nature

Visitors also add wear and tear to the natural environment of a destination in the form of pollution, overuse of natural resources such as water and forests, poor waste management, and harm to wildlife, including endangered species. For example, nearly 80 percent of the reefs in Thailand's popular Koh Khai islands have been damaged by humans. In May 2016, the government closed the three islands to visitors indefinitely amid fears that the high visitation numbers had brought the ecosystem to the brink of permanent destruction.³⁵

Threats to culture and heritage

Finally, overcrowding can threaten a destination's spiritual and physical integrity. The overwhelming majority of visitors act respectfully, but the mere existence of crowds can make security more difficult. Misbehavior by a few is scarring some of the world's great monuments, including the Great Wall and Cambodia's Angkor Wat, which have been marred by graffiti. In other cases, rapid tourism growth overtaxes local systems. In 2011, the Peruvian government established a limit of 2,500 visitors per day at Machu Picchu,³⁶ in part because of UNESCO concerns about landslides, erosion, and pollution.³⁷ But the Inca city is still attracting more than half a million people a year, exceeding the government's limit.³⁸ A new master plan, launched in 2015, aims to improve crowd control through facility improvements, use of certified guards, time limits, and set routes.³⁹



Where to begin: Creating a diagnostic

Our discussions with global T&T leaders have revealed that destination leaders know they are overcrowded or at risk of being so—but most lack the tools to identify the specific challenges they face and mitigate those challenges. In this section we describe a diagnostic that we have developed to help destinations (beginning with cities) understand where they stand.

The current measurement landscape

A number of databases and indices were built to assist tourism destinations in measuring and improving their sustainability. Developed by the European Commission, the European Tourism Indicator System (ETIS) helps destinations measure their performance on 43 core indicators, including destination management, economic value, social and cultural impact, and environmental impact. The nonprofit Green Destinations maintains a database of 100 sustainability indicators linked to its Green Destinations Standard.⁴⁰ The private-sector Global Destination Sustainability Index (GDS-Index), which is focused on business travel and events, seeks to identify best practices and support sustainability strategies.⁴¹

These efforts are helpful, but nothing quite delivers what tourism leaders told us they wanted: a rapid, easy-to-use diagnostic based on credible, widely available data. So we set out to build a simple system that can help destinations understand their specific situations and early warning signs. We believe destinations can use the data they already have to better understand their circumstances and take appropriate action.

Developing the diagnostic

To develop the diagnostic, we took four steps.

First, using the databases mentioned above and other similar sources, we developed a list of metrics that can be used to quantify tourism, focusing on those that could indicate overcrowding. Wherever possible, we looked only at metrics directly linked to tourism (such as arrival seasonality) rather than those in which tourism only contributes a small part (such as traffic congestion). This list included both traditional metrics and publicly available databases as well as more unconventional analyses using online data sources such as travel review sites.

Second, we checked the availability of these metrics across regions, destination types, and time periods to ensure they are regularly updated to allow for comparisons over time. These filters left us with nine core metrics: two related to the importance of tourism to a destination and seven addressing the main challenges caused by overcrowding (Exhibit 4).

Third, we collected this information for destinations around the world. When data were available from multiple sources, we compared collection and calculation methodology and chose one to ensure consistency. We focused the initial effort specifically on 68 cities.⁴² Our goal was to develop a set of benchmarks for one destination type; we chose cities because city-level data is more widely available than data for individual sites.

Finally, we analyzed the data and established benchmarks. We broke down the 68 cities into quintiles, or clusters of 20 percent, that indicate a city's relative risk of experiencing a given overcrowding problem.

- 1. Top quintile:** Among the top 20 percent of the sample in terms of overcrowding risk (highest risk).
- 2. Second quintile:** Among the top 40 percent of the sample in terms of overcrowding risk.
- 3. Third quintile:** Among the top 60 percent of the sample in terms of overcrowding risk.
- 4. Fourth quintile:** Among the bottom 40 percent of the sample in terms of overcrowding risk.
- 5. Fifth quintile:** Among the bottom 20 percent of the sample in terms of overcrowding risk (lowest risk).

40 For more information on the Green Destinations Standard, visit greendestinations.org.

41 For more information on the Global Destination Sustainability Index, visit gds-index.com.

42 See the appendix for a full list of the 68 cities used to develop the diagnostic benchmarks.

Exhibit 4: Leaders can begin with nine metrics to understand potential risks

	Metric	Definition	Description and source
Overall context	Importance of tourism	Tourism share of GDP and employment (%)	Average contribution of direct tourism to GDP (as percent of total) and employment (as percent of total) in 2016, reflecting economic importance of tourism <i>Source: World Travel & Tourism Council analysis</i>
	Arrivals growth	Growth in tourist arrivals (% CAGR)	Average annual growth rate in international and domestic arrivals from 2011 to 2016; given data availability, includes only overnight arrivals in paid accommodation <i>Source: Oxford Economics</i>
Alienated local residents	Density of tourism	Number of visitors per square kilometer (#)	Calculated as 2016 arrivals divided by the number of square kilometers in the area encompassing TripAdvisor's top 20 attractions for the destination <i>Source: Oxford Economics, McKinsey analysis, TripAdvisor.com</i>
	Tourism intensity	Number of visitors per resident (#)	Calculated as 2016 arrivals divided by the population in the destination (using the same definition of each destination as arrivals data) <i>Source: Oxford Economics</i>
Degraded tourist experience	Negative TripAdvisor reviews	Share of "poor" or "terrible" reviews among top attractions (%)	Data captured from TripAdvisor's top 10 attractions in the destination as of July 2017, measuring the magnitude of negative sentiment in visitors' experiences <i>Source: TripAdvisor.com</i>
Over-loaded infrastructure	Arrival seasonality	Difference in arriving-flight seats between high and low month (ratio)	Calculated as value from month in 2016 with highest number of arriving-flight seats divided by value from month in 2016 with lowest number of arriving seats, representing degree of seasonality (used instead of hotel occupancy given more data availability) <i>Source: Diio</i>
	Attraction concentration	Share of reviews limited to top 5 attractions (%)	Data captured from TripAdvisor as of July 2017 and calculated as reviews of top 5 attractions divided by reviews of all attractions to indicate concentration <i>Source: TripAdvisor.com</i>
Damage to nature	Air pollution	Annual mean PM10 particulate concentration (micrograms per cubic meter) ¹	Data captured by the World Health Organization on annual mean concentration of PM10 in cities for most recent year with official reporting (typically 2012–14 but varies by destination) <i>Source: World Health Organization Global Urban Ambient Air Pollution Database (updated 2016)</i>
Threats to culture and heritage	Historic site prevalence	Share of top 20 TripAdvisor attractions that are historic sites (%)	Data captured from TripAdvisor as of July 2017 on the top 20 attractions for the destination, analyzed to identify historical sites (eg, historic buildings, religious centers) and indicate potential risk to spiritual and physical integrity <i>Source: TripAdvisor.com</i>

¹ PM10 is particulate matter pollution consisting of small particles (less than 10 microns in diameter) floating in the air, coming from motor vehicles, fireplaces, industrial sources, etc.

The quintile with the highest risk of experiencing a given overcrowding problem is shown in the exhibits throughout this section in dark blue; the 20 percent with the lowest risk are shown in dark gray. A showing in the top quintile does not necessarily mean a city is currently experiencing a degraded tourist experience—but that it’s *at risk* of that problem. The benchmark parameters for each quintile are described in Exhibit 5.

Exhibit 5: Benchmarks for cities to assess overcrowding risk

	Top quintile (highest risk)	Second quintile	Third quintile	Fourth quintile	Fifth quintile (lowest risk)
Tourism share of GDP and employment	>8.5%	6.1–8.5%	4.5–6.0%	3.2–4.4%	<3.2%
Growth in tourist arrivals	>7.7%	6.2–7.7%	4.0–6.1%	2.0–3.9%	<2.0%
Number of visitors per square kilometer	>930,000	475,001–930,000	200,001–475,000	75,000–200,000	<75,000
Number of visitors per resident	>5.3	2.8–5.3	1.8–2.7	1.0–1.7	<1.0
Share of “poor” or “terrible” reviews among top attractions	>2.8%	2.0–2.8%	1.5–1.9%	1.1–1.4%	<1.1%
Difference in arriving-flight seats between high and low month	>1.36	1.29–1.36	1.19–1.28	1.14–1.18	<1.13
Share of reviews limited to top 5 attractions	>36%	33–36%	29–32%	22–28%	<22%
Annual mean PM10 concentration	>74.9	43.1–74.9	26.8–43.0	16.6–26.7	<16.5
Share of top 20 TripAdvisor attractions that are historic sites	>45%	31–45%	21–30%	7–20%	<7%

Note: More detailed definitions and methodology explained in Exhibit 4.

Testing our findings

To test the relevance of this diagnostic system, we applied it to four very different cities: Barcelona, Spain; Buenos Aires, Argentina; Chongqing, China; and New York City, United States. For consistency, we used the same data that were collected to develop benchmarks, but in applying the diagnostic, we encourage destinations to use the most precise data they have, which are often from local sources and research. We found that the results of the diagnostic broadly reflected our understanding of local conditions, derived either directly or through conversations with tourism leaders. On that basis, we believe the diagnostic offers a solid, evidence-based starting point for cities to identify the likely overcrowding risks. Thus, it helps cities select the right actions.

Notes on diagnostic methodology

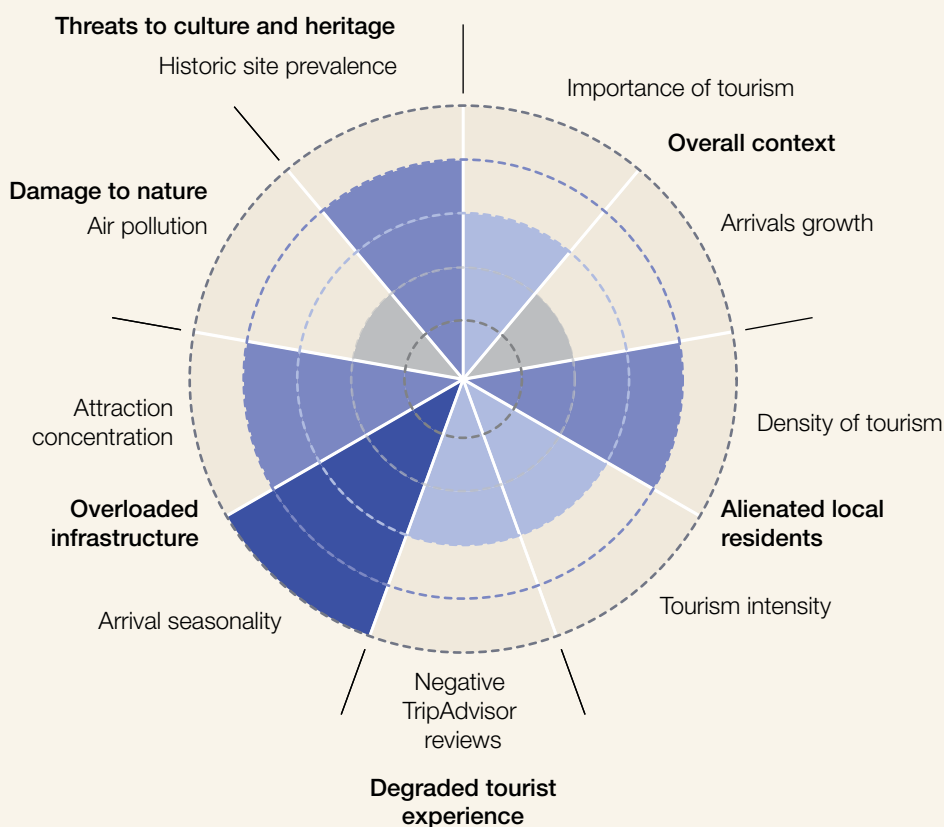
We made trade-offs to keep the diagnostic simple and based on widely available data. These indicators should therefore be supplemented with additional data and context once leaders establish a starting point; specific suggestions for building out a fact base are addressed in Chapter 3. The most important considerations include the following:

- The importance of tourism to a local economy also depends heavily on the percentage of tourism spending that stays in the local economy; destinations must consider that balance as well.
- A destination's capacity for tourism growth depends on its baseline. Double-digit growth rates in tourist arrivals may be sustainable for those starting with a low tourist base, while relatively slow growth could strain destinations that are already overcrowded. Changes in the growth rate—both up and down—can also happen on a much faster timeline than the five years considered here. Destinations must therefore closely monitor growth metrics.
- Arrivals data do not always distinguish between business and leisure travelers. This distinction is important, however, in finding appropriate solutions. The data also exclude day visitors because of differences in methodology, but destinations that have high levels of domestic and cruise tourism need to account for day visitors to understand the full scope of overcrowding.
- Given the lack of broad availability, we did not include a metric for accommodation type, but understanding the growth of home-sharing options, for example, is critical for destinations to understand their situation.
- The sustainable number of visitors per square kilometer or per capita will differ from one destination to another. A more precise picture should be established through regular surveys of residents.
- Online, forum-based sources provide a data source that directly taps visitor sentiments—although this information must be viewed in context. Certain types of tourists, such as international visitors, may be more likely to post reviews than others, and people may be more likely to review when the experience is either very positive or very negative. In addition, not all attractions are listed on travel review sites. As such, visitor surveys should also be conducted regularly.
- We found no consistent sources for tourism-related pollution or energy consumption at the country or city level. The World Health Organization (WHO) measures air pollution, but the metric is not specific to tourism; nor does WHO cover topics such as biodiversity, habitat loss, waste generation, and water consumption. The databases described in this section, such as Green Destinations, offer much more depth in this regard.
- Just because a historic site is popular does not necessarily mean it is under threat, but it may indicate a degree of risk. It is worth considering other sources, such as the World Monuments Fund annual “Watch” list.¹

1 For more information, visit wmf.org/2018watch.

Exhibit 6: Example diagnostic results for Barcelona

- First quintile (relatively more risk of overcrowding)
- Second quintile ----- Third quintile ----- Fourth quintile
- Fifth quintile (relatively less risk of overcrowding)

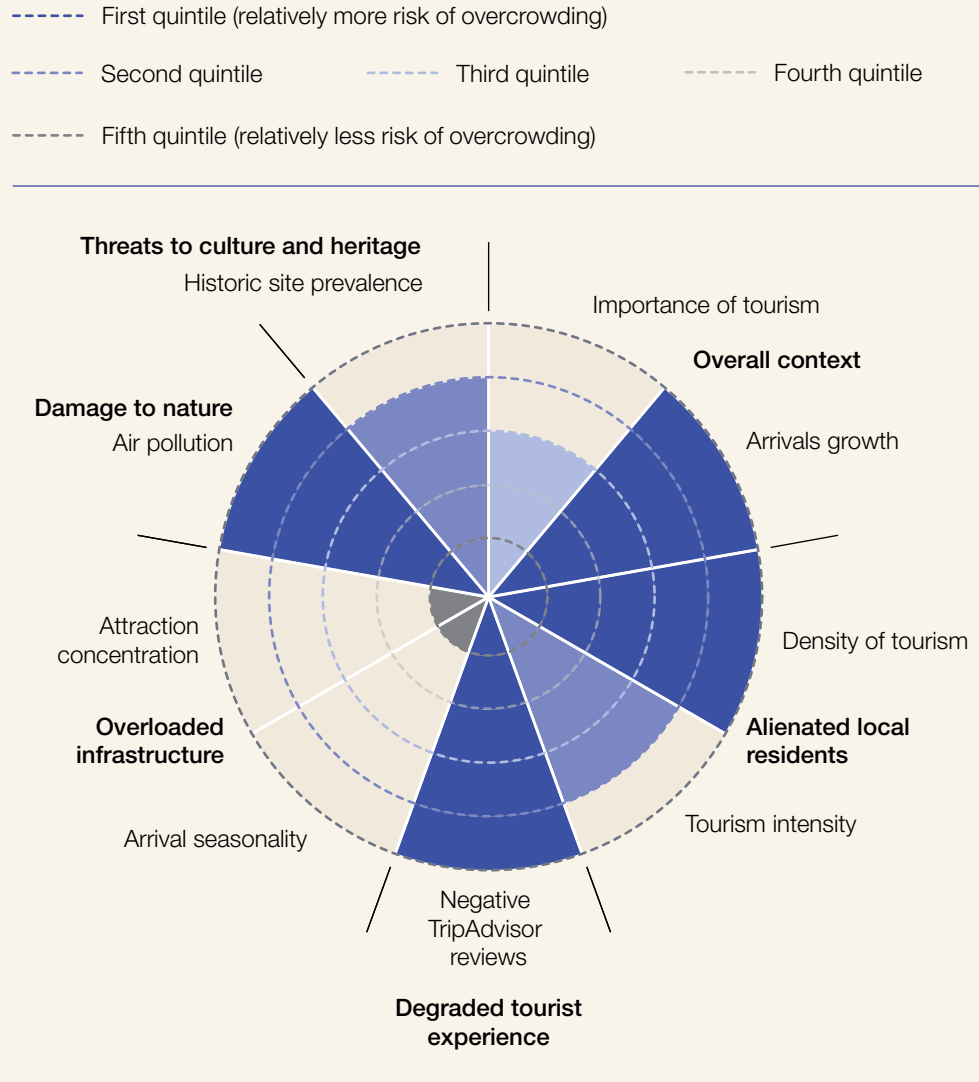


Barcelona: Barcelona is already the focus of much attention because of its high-profile struggles with overcrowding—and indeed, the diagnostic results indicate risk across nearly all of the challenges associated with overcrowding (Exhibit 6).

Barcelona's situation also highlights the importance of using this diagnostic as a starting point as opposed to an end point. Home-sharing is a significant factor in Barcelona's lodging landscape, with more than 1.2 million visitors staying in Airbnb rentals in the city in 2016.⁴³ Only by analyzing a detailed breakdown of accommodation types, including hotels, licensed rentals, and unlicensed rentals, can leaders determine the risks to residents and infrastructure. One caveat: day visitors, such as the cruise-ship stopovers, are not captured in these data; doing so will be important to identify appropriate tactics.

We suspect other destinations that have been identified as hot spots for overcrowding—such as Dubrovnik and Venice—could display a similarly risky profile, although the specific challenges are likely to vary.

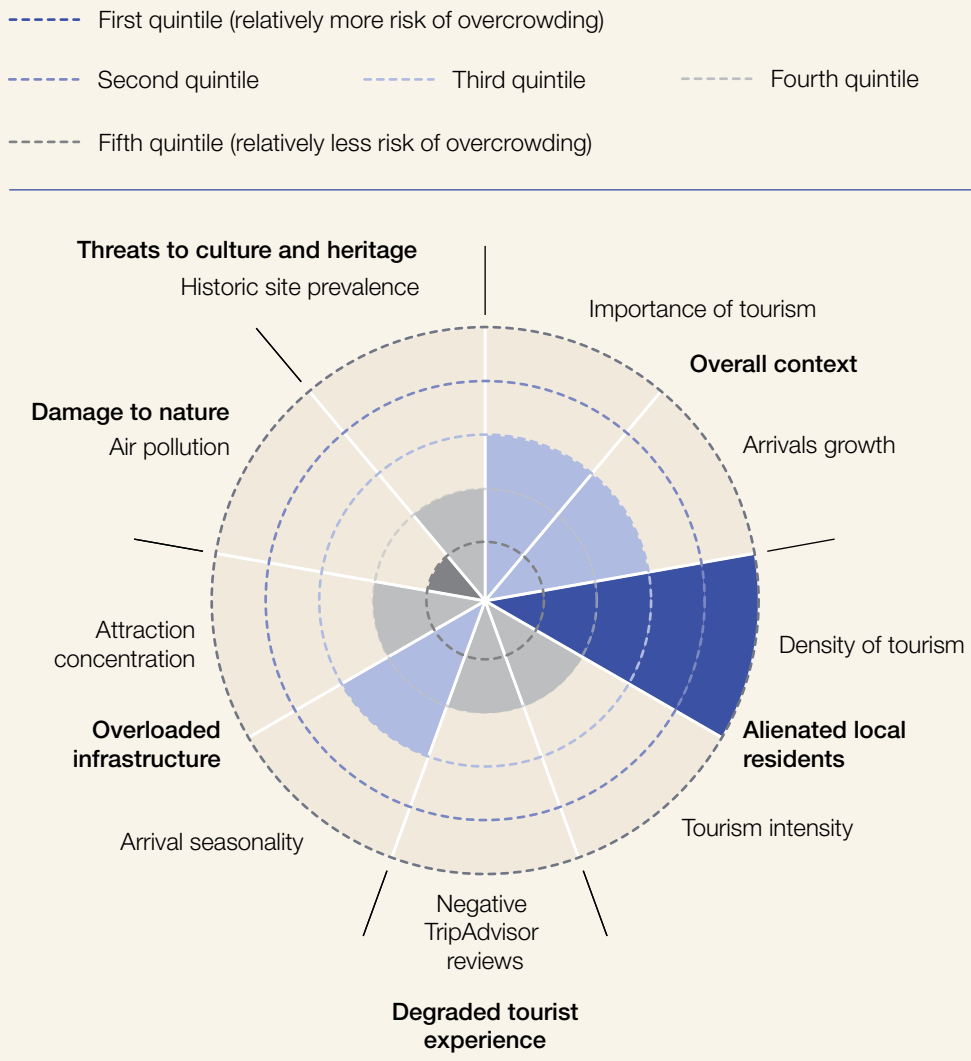
Exhibit 7: Example diagnostic results for Chongqing



Chongqing: Visitor arrivals to this major southwest Chinese city grew nearly 12 percent a year from 2011 to 2016—fifth highest among the 68 cities—primarily driven by domestic visitors. The diagnostic indicates a risk that tourism will contribute to crowding in an already bustling city with a particular impact on local residents, tourist experience, and nature (Exhibit 7).

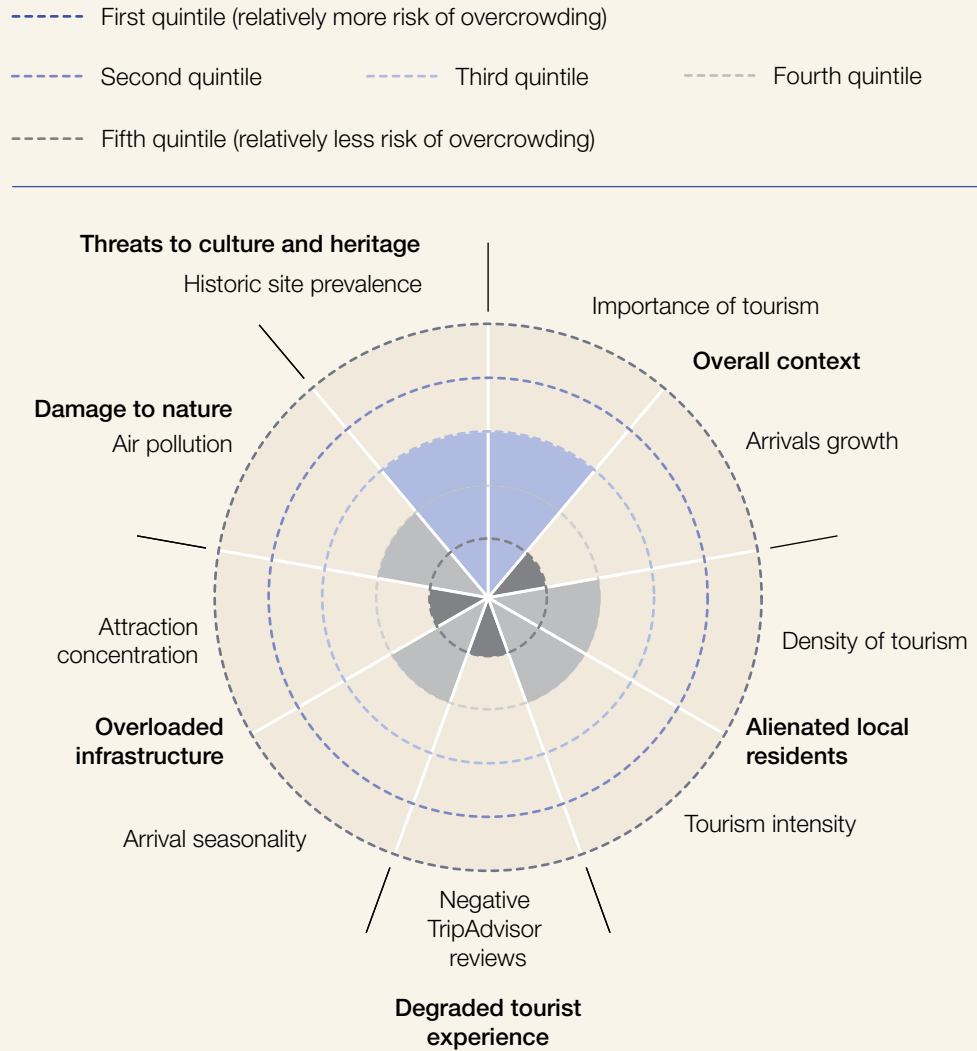
While Chongqing is not discussed in trade media as often as hot spots like Barcelona, the diagnostic indicates that Chongqing and other emerging-market cities seeing brisk growth in arrivals are at risk of tourism-related overcrowding in the near future.

Exhibit 8: Example diagnostic results for New York City



New York City: In New York City, tourism is important but far from dominant; the city’s share of GDP and employment from direct tourism matches the sample median of just over 5 percent. The diagnostic displays a less-pronounced risk profile but also reveals signs of risk of alienated local residents (Exhibit 8). To get ahead of the problem, the city might consider exploring this challenge—for example, through resident surveys—and devising tactics to address it. In addition, the above-average growth in tourist arrivals serves as a reminder that leaders must constantly monitor conditions over time.

Exhibit 9: Example diagnostic results for Buenos Aires



Buenos Aires: With no results exceeding the third quintile, Buenos Aires displays a relatively low level of overall risk of tourism overcrowding; in no category does it feature in the top 40 percent of risk (Exhibit 9). Applying the principles of good tourism management (see Chapter 3) is likely more important than immediate, tactical action to reduce overcrowding.



This diagnostic does not measure the precise severity of overcrowding, nor does it attempt to judge which cities are doing best or worst. It does allow destinations to use benchmarks from other destinations to understand their situation and take action.

We intend to expand this diagnostic. The benchmarks will improve as the sample size grows (and expands beyond cities to include countries and individual attractions) and as new indicators become more widely available.

3.



Ephesus, Turkey



BEST PRACTICES IN TOURISM MANAGEMENT

Many destinations have experimented with tactics to mitigate overcrowding, including capping the number of visitors to certain sites or at certain times and establishing reservation systems. However, in many cases such tactics are taken outside the context of a broader understanding or management plan. And in some, measures may be implemented suddenly and without consideration of their wider implications. Success in overcoming the challenges of overcrowding, and indeed tourism development in general, lies in good planning and management. Our research has identified four best practices that are foundational to the successful growth and management of tourism destinations:

1. Build a comprehensive fact base and update it regularly
2. Establish a sustainable growth strategy through rigorous, long-term planning
3. Involve all sections of society – commercial, public, and social
4. Find new sources of funding

Site-level resources for tourism management best practices

The tourism management practices described in this chapter are also applicable at the site level, but the variety of sites is so great as to be beyond the scope of this report. Two resources for site-level solutions are the UNESCO World Heritage Sustainable Tourism Toolkit, whc.unesco.org/sustainabletourismtoolkit/, and National Trust's *Doing busy well* handbook, <http://intoorg.org/wp-content/uploads/2017/08/Doing-busy-well-handbook.pdf>. An additional resource with numerous case examples is the German Federal Ministry for Economic Cooperation and Development's *Tourism planning in development cooperation: A handbook*, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), 2014, <https://iucn.oscar.ncsu.edu/mediawiki/images/5/5b/Giz2014-en-tourism-handbook.pdf>.

Regardless of a destination's current situation, implementing these four best practices could improve destinations' ability to alleviate overcrowding—and potentially, in the long term, prevent it. While most of the tactics are focused on cities and countries, many of these lessons could also be applied at the site level as well.

Build a comprehensive fact base and update it regularly

Key takeaway: Countries, regions, cities, and sites must begin by gathering detailed data and developing their analytics capabilities to inform and refine tourism strategies.

Destinations must establish data systems that go beyond compiling the standard metrics from airports, hotels, and home-sharing providers. As a starting point, there are many organizing frameworks and metrics lists to reference (see Chapter 2 for examples). In most cases, destinations will supplement these approaches with additional data on travelers and residents.

For example, developing a deeper fact base on the different traveler segments (business, leisure, day-trippers, and so on) can help leaders understand and meet the needs of each. If managing growth is becoming a problem, the priority is to pinpoint when and how it happens. In Abu Dhabi, the government has set up a data decision center that tracks real-time, tourism-related data from companies and government agencies. In addition to tracking standard metrics (for example, occupancy rates, average room rates, number of international arrivals per country), the system raises a red flag when certain scenarios occur—for example, when arrivals from key markets increase at a higher rate than projected or when occupancy rates in particular districts fall below a targeted threshold. The government can use this information to coordinate with sector leaders and adjust real-time marketing strategies and offers to manage demand.

The best data offer insights that can help destinations understand overall tourism trends, the types of tourists they attract, and competitors. These factors can inform their international marketing strategies, media design, event planning, and investments and be used to implement campaign measurement (such as A/B testing, which compares two versions of a website or advertisement to determine which performs better) and other services.

Developing a robust fact base also involves understanding what residents need and want from tourism. Surveys are an effective way to build this knowledge, especially when conducted regularly, as they track how attitudes are changing and whether certain initiatives are working. Many places, such as Bruges, Charleston, Guam, Hawaii, and New Zealand, have done just that.⁴⁴ The research for Bruges was led by Visit Flanders, the tourism board for Flanders and Brussels. The survey of 1,200 residents found that seven out of ten respondents want to be involved in tourism policies and planning. The response was especially strong from those working in the tourism sector, younger residents (aged 18–34), and those living in the city's historical center. The findings—including actions to give residents more of a voice in planning decisions—are being incorporated into Bruges' tourism strategy.⁴⁵

Since late 2015, New Zealand's biannual *Mood of the Nation* survey has asked a representative sample of 500 residents about their perceptions of international tourism. While more than 90 percent of New Zealanders support tourism, the percentage who worry that “international visitors put too much pressure” on the country increased from 18 percent in December 2016 to 35 percent in March 2017.⁴⁶ Top concerns include road accidents, traffic congestion, stress on infrastructure, and litter. The fact base from the survey can help tourism authorities and private-sector stakeholders address problems before they worsen.

To develop and apply a robust fact base on both tourists and residents in a cost-efficient way, destination leaders should consider the following three approaches: articulate high-value use cases, encourage the exchange of information, and build capabilities.

Articulate high-value use cases

Before collecting data, destinations should clarify the questions they want the data to answer and the decisions it will inform. Possible questions include the following: What tourist segments does this destination attract? What is the competition, and how does this competition change at different times of year? What resources are visitors using? What is the optimal marketing mix to reach likely travelers?

Building a fact base is a journey that requires destinations to become “agile” — that is, capable of making incremental improvements through continuous iterations. There will be a long list of use cases that could be developed, multiple data sources that could be integrated, and decisions that could be enriched through intelligence. Destinations should focus on delivering value while maintaining delivery flexibility.

Encourage the exchange of information

Hotels, home-sharing platforms, airlines, maritime carriers, infrastructure providers, and tour operators all amass data for their own purposes, but they do not consistently share it, even with tourism authorities. As a result, no one takes full advantage of the available information.

However, players at each link in the value chain can benefit from collaboration and data sharing. For example, meeting, incentive, conference, and exhibition (MICE) providers are interested in expected occupancy rates and customer profiles, while airlines would benefit from using information on expected occupancy in their revenue-management systems. Because they engage with the entire value chain, tourism authorities are in the best position to capture relevant indicators from each party and, when appropriate, share aggregated statistics. They could also take the lead on establishing data-sharing agreements that respect confidentiality and information-security concerns.



Kaokoland, Namibia

Build analytics capabilities

Destinations will need both talent and technical capabilities to take full advantage of the data. While it may be tempting to outsource the analytics work to accelerate progress, building in-house talent is valuable, and establishing even a relatively small group can result in meaningful insights.⁴⁷

Establish a sustainable growth strategy through rigorous, long-term planning

Key takeaway: Destinations need to shift their focus from promotion to broader planning and management challenges. Those with a clear, long-term strategy built upon a solid fact base are more likely to achieve sustainable growth and mitigate—or even prevent—overcrowding.

More destinations should be working on sustainable tourism strategies than are currently doing so. Only one-third of all natural UNESCO World Heritage Sites, for example, have extensive tourism planning in place.⁴⁸ One promising trend is the shift in name and focus from destination marketing organizations to destination management organizations (DMOs) that bring stakeholders together to lead strategy development.

In many developing countries, the need for economic growth is the top priority, and the primary goal is to increase tourism. Other destinations choose to be selective about the tourists they attract, focusing more on the value of tourism rather than the number of visitors. These tourism authorities want to attract “good tourists,” defined as those who respect the destination and contribute to the local economy. While this sounds simple in principle, it isn’t. Who are those “good tourists?” Where are they from? Why did they come? How and where do they spend their money? How can we get more of them? A sound tourism strategy is built on finding the answers to these questions.

An essential element of a sustainable tourism strategy is to put the local community first. For example, Jamaica developed a strategy in 2015 to shift from being a “sun, sea, and sand” destination to a “community tourism” destination that offers visitors opportunities to interact with the country’s culture and heritage and promotes agriculture, culture, and local businesses. The Ministry of Tourism and Entertainment brought together government, businesses, nonprofit entities, and the public to identify issues and opportunities facing communities. The result of this effort is a detailed implementation plan, known as the Community Tourism Vision, that focuses



47 For more on building an analytics team, see Helen Mayhew, Tamim Saleh, and Simon Williams, “Making data analytics work for you—instead of the other way around,” *McKinsey Quarterly*, October 2016, McKinsey.com.

48 To explore protected areas around the globe, visit tourismdashboard.org/explore-the-data/protected-areas/.

on developing small and midsize tourist businesses, particularly those that highlight the country's unique cultural elements.⁴⁹ One example is the Walkerswood Jerk Country Tour, which began in 2005. Tourists can learn about Jamaican cuisine through a visit to a spice garden and factory where they can sample the goods. The tour company employs more than 80 full-time staff, and local farmers supply produce.⁵⁰

Six elements of a tourism strategy

To identify these objectives and build a sustainable growth strategy, destinations will need to consider six elements: vision and aspiration, segment strategy, product strategy, infrastructure and other enablers, marketing and communication strategy, and organization and performance management. Each element includes a complex set of questions, and each requires input from a variety of stakeholders. This exercise can be useful for a wide variety of destinations and even individual attractions.

Vision and aspiration

To set the course for their strategic journey, destinations must ask and answer the following questions:

- What is the vision for the destination?⁵¹
- What is the carrying capacity, including environmental factors?
- What is the target number of annual visitors?
- What are the target tourism revenues, GDP impact, and job creation impact?

Definition of “carrying capacity”

UNWTO defines carrying capacity as “the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic, and sociocultural environment and an unacceptable decrease in the quality of visitors’ satisfaction.” Related sources include Harry Coccossis, Anna Collovini, and Alexandra Mexa, *Defining, measuring and evaluating carry capacity in European countries*, University of the Aegean, Department of Environmental Studies, 2002, ec.europa.eu and also Harry Coccossis and Alexandra Mexa, *The challenge of tourism carrying capacity assessment: Theory and practice*: Routledge, 2004.

Some destinations, particularly those in the earlier stages of development, will benefit most from shorter timelines that can be reassessed and built upon in two or three years. These targets must be specific, measurable, and represent an ambitious but not an impossible goal. Regardless of the targets and timelines set, tourism authorities must ensure all stakeholders—including residents—are engaged in developing these targets.

Segment strategy

Once the vision and aspirations are set, destinations can begin defining their visitor segmentation strategy by asking the following questions:

- What is the target mix of source markets for visitors (including domestic)?
- What is the target profile mix in terms of leisure, business, and other kinds of travelers?
- For each segment, how much are visitors expected to spend and how long are they expected to stay?

51 The United States Agency for International Development (USAID) produced a tool kit that may be helpful to destinations in guiding development of their vision and goals. See David Brown, Jennifer Stange, and Solimar International, *Tourism destination management: Achieving sustainable and competitive results*, USAID, 2011, pp. 38–45, usaid.gov.

While some destinations will have robust data on their segments and current mix of source markets, which will allow more accurate forecasting, others will need to start with less information. In either case, it is critical to put together data to guide future decision-making about where to invest and what sort of infrastructure and regulations will serve the goals of the strategy. Destinations should track these indicators and adjust their strategy as needed.

Product strategy

Next, tourism leaders should ask the following questions about their product strategy:

- What differentiated and unique products—tours, activities, sites, attractions, and other amenities—are required to meet the needs of target segments?
- Which anchor events will draw visitors throughout the year?
- Who will pay for these products and events?

Infrastructure and other enablers

From hotels to transport to airports, destination leaders must ask several questions about their infrastructure capacity and objectives, including the following:

- What broad infrastructure plans and initiatives must consider tourism?
- What land-use planning and zoning efforts must be undertaken?
- How many hotel rooms (or alternative lodgings) are required by segment, both now and in the future?
- What changes must be made in terms of airport capacity and route prioritization?
- What regulatory changes are required to achieve these infrastructure levels?

This step requires tourism authority leaders and other stakeholders to think beyond the tourism sector and adopt an integrated perspective that considers tourism businesses and visitors as just two of many users of shared assets. This step also provides an opportunity for discussion on how the strategy will address the home-sharing economy, smart transport systems, and other travel innovations.⁵²

Marketing and communication strategy

Now that tourism authorities have a solid fact base and know what they want to achieve, they can turn to the following questions on marketing and communication:

- What is the budget required to support both the promotion of the destination (internationally and domestically) and events?
- What are the most productive channels to focus on?
- How can the marketing and communication strategy maximize the shared value among stakeholders in the sector and across segments?

Organization and performance management

Finally, leaders must consider how to implement the strategy and measure success. The following questions can get them started:

- What will be the private-sector role versus the government role in funding?
- Which industry committees must be set up to enable the sector?
- How will progress toward targets be monitored and evaluated?

52 For more on how smart transport and other innovations are changing the playing field, see Eric Hannon, Colin McKerracher, Itamar Orlandi, and Surya Ramkumar, *An integrated perspective on the future of mobility*, October 2016, McKinsey.com.

Resources to help build and implement a sustainable tourism strategy

The Global Sustainable Tourism Council (GSTC), a United States–based nonprofit whose membership includes government agencies, travel providers, and NGOs, is the standard-setting body for sustainable tourism development. The United Nations–backed organization has developed three sets of standards: one for hotels, one for tour operators, and one for destinations. The criteria align with the UN’s Sustainable Development Goals and were informed by rigorous stakeholder consultation in compliance with procedures established by the International Social and Environmental Accreditation and Labelling (ISEAL) Alliance, a global association for sustainability standards.⁵³ As with other industry sustainability standard-setting bodies (for example, the Marine Stewardship Council for seafood and the Forest Stewardship Council for forestry products), accredited certification bodies certify hotels, tour operators, and destinations to the GSTC criteria. GSTC supports destinations in implementing the criteria through trainings and assessments.

As important as the right components of a strategy is the process for developing the strategy. The US National Park Service, which faces seasonal overcrowding at many of its popular parks, such as Yellowstone and Yosemite, has created a detailed approach that can serve as an example for others. This process is used to develop visitor-use management plans with the stated goal of providing a “high-quality visitor experience, while protecting natural and cultural resources.”⁵⁴



Involve all sections of society—commercial, public, and social

Key takeaway: The perfect data and strategy can only work if all stakeholders are engaged throughout the process. Tourism authorities should create committees and other formal mechanisms to work with stakeholders, including local communities, to discuss problems and devise solutions.

Two principles are crucial to get all sections of society involved.⁵⁵ First, there needs to be political support and clarity of vision from the top down. Successful tourism development requires collaboration among many different agencies. To create a cultural heritage site in a national forest, for example, agencies related to forest conservation, wildlife, heritage, infrastructure, and local government must all be involved. Top-level leadership can also take the form of an external party; for example, the threat from the United Nations to place Venice on UNESCO's list of endangered heritage sites heightened the pressure to solve the issues of overcrowding in the city's lagoons.⁵⁶

Second, there must be constructive participation among other stakeholders in society, including private-sector businesses, NGOs, the public, and tourists. It is important to note that the private sector in this instance does not only refer to large corporations; one of the characteristics (and benefits) of tourism is the participation of many small businesses, such as guesthouses and restaurants.

For an example of how these two principles can be converted into policies, look no further than Iceland. In 2011, the parliament defined core objectives for the tourism sector, naming “sustainability and responsibility for Iceland's culture and natural surroundings” as a priority.⁵⁷ With this clear direction from the top, all government entities came together to ensure consistency of outlook and application, for example, when evaluating proposals for new developments.

In 2015, the Ministry of Industries and Innovation and the Icelandic Travel Industry Association developed the “Road map for tourism,” a more detailed strategy.⁵⁸ The process included creating a detailed stakeholder map and holding more than 50 meetings with stakeholders across the country. Out of this effort, Iceland set up a Tourism Task Force with four members from the private sector, four cabinet ministers, and two members from local government on the board.⁵⁹ The task force is responsible for building a foundation for sustainable development of the tourism sector over the next five years.

Other destinations could benefit from a similar, committee-based approach. Such committees could not only be engaged in long-term strategy and planning but also meet regularly—on a quarterly basis or more—to resolve pressing problems. As a practical starting point, we offer the following committee types, each of which we have observed to be effective in practice, and the kinds of topics they might consider.

Lodging and tour operators committee

Members might include hotel owners and operators, local representatives from home-sharing platforms, cruise line operators, and tour operators. The committee may work to do the following:

- Develop comprehensive tourism packages for different customer segments.
- Work with different sectors to coordinate actions ahead of key events and peak seasons.
- Share data and insights on trends and customer preferences to refine tourism goals and inform promotions.

Events and MICE committee

Members might include event organizers, venues, promoters, destination management companies, airlines, and hotels. The committee may work to do the following:

- Create a comprehensive events calendar.
- Develop promotions and packages to attract international events visitors.

55 For an overview of the core roles of various stakeholders in tourism management, and case studies from destinations in Asia-Pacific, see *Managing growth and sustainable tourism governance in Asia and the Pacific*, The World Tourism Organization, August 2017, e-unwto.org.

- Work together on logistics and transportation requirements during MICE events.
- Consult regularly to ensure venues can meet capacity requirements.

Marketing committee

Members might include marketing leaders from agencies, the media, and a wide range of tourism businesses. The committee may work to do the following:

- Ensure regular sharing of intelligence on topics such as customer insights, new customer segments, and visitor feedback.
- Coordinate marketing efforts to ensure messaging is consistent.
- Educate tourists about the issues of sustainability and overcrowding to influence changes in visitor behavior.

District development committee

This committee might consist of municipal leaders, real estate developers, and environmental agencies. The committee may work to do the following:

- Create master plans for each district.
- Work together to ensure individual developments are consistent with the master plan.
- Provide updates and monitor timelines for upcoming developments and plans.
- Share insights on tourism trends to inform district development.
- Develop initiatives to increase private-sector investment.

Destination stewardship committee

Modeled on the Destination Stewardship Center's concept of Geotourism Stewardship Councils,⁶⁰ this committee ensures that there is a private-sector perspective and that different local viewpoints are represented. Members might consist of community and environmental leaders, including individual citizens, with knowledge of history, natural habitats, cultural traditions, and community impact. The committee may work to do the following:

- Coordinate efforts to conduct resident surveys and other methods measuring population sentiment.
- Bring a diverse perspective on community interests.
- Ensure overall tourism strategy remains in-line with community interests.



Find new sources of funding

Key takeaway: Once data, strategy, and stakeholders are aligned, destinations can explore a growing number of innovative approaches to finance investments in infrastructure and sustainability.

Tourist taxes take many forms, including “bed taxes” on accommodation, border taxes, departure taxes, “day visitor” taxes (in destinations such as Barcelona that have a high volume of day-trippers), and differential property taxes for tourism-related businesses.⁶¹ With the exception of the property tax, these levies are shouldered by the tourists themselves. Regardless of who pays, tourist taxes are most effective when the revenue is applied to local community needs and the tourism sector.

For example, in 2012, Iceland established the Tourist Site Protection Fund, which generates revenue in part from the accommodation tax and in part from direct government funding. The proceeds are directed toward “developing, maintaining, and protecting nature and man-made structures” and “carrying out construction related to traveler safety and nature conservation.”⁶² (Recent changes will focus the fund on municipality-managed or privately owned sites, with larger publicly run sites financed by a separate infrastructure fund.) These measures have broad public support; in October 2016, 87 percent of those surveyed approved of the government raising fees or levying tourist-related taxes.⁶³

In Botswana, the Tourism Industry Training Fund levy generates one pula (about 10 US cents) per occupied bed per night; the funds are used to run training courses for local hospitality sector staff.⁶⁴ A US \$30 levy, still under development in late 2017, will be assessed at the border and applied to conservation and development.⁶⁵

In New Zealand, local governments typically pay for local infrastructure, which can be a problem in areas with lots of visitors but few taxpayers. New Zealand’s Tourism Infrastructure Fund provides up to NZ \$25 million (about US \$17 million) per year to support infrastructure development in such districts.⁶⁶ Four major tourism entities — Air New Zealand, Auckland Airport, Christchurch International Airport, and Tourism Holdings Limited — have proposed establishing a NZ \$130 million (about US \$89 million) annual tourism infrastructure fund, half of which would be financed through a 2 percent national bed levy and a NZ \$5 (about US \$3) increase to the border levy, with the remaining half financed through the government.⁶⁷

Destinations are also experimenting with a range of non-tax-based financing options that increase the breadth of income sources, including those from the private sector. Among the options: public-private partnerships (PPPs), crowdfunding, and tourism business improvement districts (TBIDs). Major infrastructure projects, such as airports, are usually covered by existing plans such as PPPs. Therefore, innovation in financing is particularly important for smaller-scale, local infrastructure that visitors need, such as public toilets, parking lots, and slip roads.

Cofunding models and unlocking existing government assets are the two main types of innovative funding.

Cofunding models

There are four major types of cofunding.

Public-private partnerships (PPPs)

In the Middle East, there are many tourism projects on the drawing board, including Saudi Arabia’s plan to turn more than 100 miles of Red Sea coastline into a luxury beach resort,⁶⁸ as well as developments in the mountain regions of the United Arab Emirates and Oman. To deliver the required infrastructure, stakeholders are exploring new kinds of PPPs in which the government provides access to land as well as a partial development of critical infrastructure in exchange for an equity stake; the idea is to generate high long-term returns that can be reinvested.

61 The WTTC asks five questions when studying tourism-related taxes: is the tax “equitable, efficient, simple, a fair means of generating revenue, and an effective stimulus to growth”? For more information, see www.wttc.org/research/policy-research/taxes/.

Matching grants

Cofunding grant programs allocate public funds on a matching basis (often dollar for dollar) to town councils, government agencies, NGOs, and private-sector players. In this model, the government contributes funding or expertise to projects that align with the national tourism strategy. Projects typically need to demonstrate a return on investment for both the government and the other sponsoring parties to solidify the long-term success of such matching programs. For example, Australia's Tourism Demand Driver Infrastructure Fund (TDDI) has three mandates: to increase tourism demand, to improve tourism infrastructure quality, and to increase tourist spending. The TDDI program plans to disburse AU \$43 million (nearly US \$33 million) to state and territory governments over approximately four years for environmental, transport, and other infrastructure projects.⁶⁹

Crowdfunding

Local, mixed-use infrastructure in particular can benefit from crowdsourcing platforms, not only to boost public funding but also to spur community engagement (provided it is used primarily for public space investments). In the United States, the platform InfraShares helps communities and city officials raise funds for infrastructure projects by offering citizens the opportunity to invest in them.⁷⁰

On a larger scale, the city of Rotterdam harnessed crowdfunding for its "I Make Rotterdam" pedestrian bridge, which was designed to connect areas that had previously been difficult to reach by foot or bicycle.⁷¹ The bridge was built with wooden planks stamped with donors' names or messages, and once the crowdfunding proved successful, it received a municipal grant.⁷²

Tourism business improvement districts (TBIDs)

In this model, tourism-related businesses within a given district contribute toward a fund for tourism development managed by a nonprofit organization and set up as a PPP. Contributions are usually calculated as a percentage of revenue but they can also include bed taxes, property taxes, or levies based on sales or footfall. These funds are dedicated to tourism development.

The key challenge that deters growth of TBIDs is convincing local tourism businesses to join, as the benefits of TBIDs only start to become material with scale; thus, there must be a critical mass of supporting businesses for significant funding. In 2014, for example, the Loch Ness and Inverness region in northern Scotland launched a TBID to raise funds to promote tourism development.⁷³ The objectives include ensuring a sustainable stream of funding and driving local initiatives, with the funds raised being used exclusively in the Loch Ness and Inverness district.⁷⁴

Unlocking existing government assets

Capital recycling through selling, leasing, and sale-and-leaseback of public assets can be an effective way to free up funds from asset-heavy balance sheets. For example, in 2014 the Australian government set up the Asset Recycling Initiative (ARI), which incentivizes states and territories to sell assets and reinvest the proceeds into infrastructure projects. Successful proposals must demonstrate a clear net benefit, enhance long-term economic productivity, and increase private-sector involvement in financing infrastructure investments.⁷⁵




Solid tourism management practices are an enabling factor for successfully and efficiently addressing overcrowding. Specifically, destinations would be well advised to ensure their tourism fact base is robust, their strategy is clear, their stakeholders are engaged, and their funding mechanisms are set. These four foundational best practices will help ensure that any tactics to mitigate or prevent overcrowding are more likely to succeed.

4.



Great Wall of China



MATCHING SOLUTIONS TO PROBLEMS: TACTICS FOR ADDRESSING OVERCROWDING

There is no single answer to overcrowding; what works at one destination may not work at another. The path forward depends on the unique mix of challenges facing a destination. Is the biggest concern preserving residents' quality of life? Improving the tourist experience? Protecting sites? All of the above? How severe is the risk? Who can help to solve the problem?

Some destinations have made more progress than others in testing or implementing tactics to mitigate overcrowding; other destinations can adapt these strategies to their own situation. Our research has identified the following five tactics:

1. Smooth visitors over time
2. Spread visitors across sites
3. Adjust pricing to balance supply and demand
4. Regulate accommodation supply
5. Limit access and activities

Each tactic offers a range of specific actions of both the stick and the carrot variety—rules, regulations, taxes, and fees to shape tourism can be complemented with attraction development, promotion, marketing, and creative use of technology. By adopting the right mix of tactics, destinations can address overcrowding.

Smooth visitors over time

Many destinations suffer from imbalanced influxes of visitors from one season, day of the week, or time of day to another. It is particularly important for destinations facing a degraded tourist experience, overloaded infrastructure, threats to nature, or threats to culture and heritage to develop tactics to “smooth” these imbalances. While in some instances it makes sense simply to limit the number of visitors, for example, through a daily cap, we increasingly also see destinations establishing reservations and ticketing systems, using real-time data to nudge visitor behavior, and changing promotion strategies.

Establish arrival limits

Restricting tourism is a tricky business, and it is likely to provoke opposition from those who may lose income—or fail to see growth—as a result. Perhaps surprisingly, many of the private-sector leaders who spoke with us agreed that some destinations are hitting their limits. What they want is to operate within clear, consistently enforced regulations.

Several destinations have implemented arrival limits and quotas to protect their natural and cultural assets. Ecuador’s Galápagos Islands, a veritable time capsule of plant and animal species and a UNESCO World Heritage Site, were placed on UNESCO’s “in danger” list in 2007.⁷⁶ The number of visitors to the islands had grown from 40,000 in 1990 to more than 145,000 in 2006, and the resident population had doubled in approximately the same period.⁷⁷ Among other initiatives, the Ecuadorian government established regulations over the arrival and movement of visitors around the islands. In 2012, the government established a visit limit of 15 days and 14 nights per cruise ship, during which the ship may not visit the same site twice (with the exception of the Charles Darwin Research Station).⁷⁸

Dubrovnik, Croatia, has also seen massive growth in tourist arrivals. In 2016 alone, the city’s walled old town, which is home to just over 1,000 people, welcomed one million tourists, 800,000 of whom were cruise-ship passengers. The city’s World Heritage Site status is at risk as a result, and the local community is restive.⁷⁹ UNESCO has recommended that Dubrovnik allow a maximum of 8,000 visitors at a time—and the mayor has pledged to cut that maximum in half, to 4,000.⁸⁰ Enforcement mechanisms, which currently include visitor tracking via surveillance video cameras, will expand in 2018 to limits on cruise ship arrivals during peak times and day-trip facilitation by tour operators.⁸¹

Indeed, cruise ships are a particularly common source of concern for port cities. In 2014, public protests over cruise ships in Venice’s Giudecca Canal led to restrictions on the size and number of such ships. Although these restrictions were overturned, the cruise lines have taken voluntary actions; the Venice Port Authority is expecting 11.4 percent fewer passengers in 2017 than in 2016. The city government, tourism operators, and residents are still seeking a long-term approach that balances the contributions of cruise ships with their drawbacks.⁸²



Deploy reservations and ticketing systems

Theme parks and similar tourist attractions have long used sophisticated reservations and ticketing systems. Other destinations are beginning to follow their lead. For example, the Milford Track—a 33-mile hiking trail that winds through New Zealand’s mountains, rainforests, and wetlands—limits the number of full-trail hikers to 90 per day during peak season. In off-peak months, experienced hikers may tackle the trail independently without a reservation.⁸³

An increasing number of US parks are establishing or considering reservations systems to combat overcrowding as well. The California State Parks system, for example, now requires reservations for its campsites.⁸⁴ A number of US national parks, such as Zion in Utah, are now considering implementing reservations systems for the first time.⁸⁵

Use technology to nudge visitors in real time

Destinations are also using technology to help smooth out congestion in real time. In some cases, this tactic is used to even out peak and non-peak arrivals and to spread visitors to less-popular destinations. In others, visitors themselves can tap into real-time data to avoid crowds.

For example, Amsterdam is experimenting with displaying wait times at top visitor attractions on its website.⁸⁶ The city has also created an app that sends push notifications to users warning them of long queues and suggesting alternatives. Visitors can even download an artificial intelligence–powered service that suggests off-the-beaten-path destinations based on their social-media profiles.⁸⁷ On a preventive basis, Amsterdam is developing dashboards to forecast overcrowding in specific locations. The traffic department and other agencies are exploring how to track people through movement detection cameras and mobile-phone data. Combined with data analytics, this information can help the city optimize maintenance and cleaning schedules and determine infrastructure needs.⁸⁸

Venice is planning to install technology that counts people in high-traffic areas such as the Ponte degli Scalzi, the Ponte di Calatrava, and the three bridges crossing the Rio Novo. These people-counters will automatically share the information via social media to nudge visitors away from those areas and toward other attractions.⁸⁹

Businesses are also offering technology-based solutions. Since 2015, Google has offered users its “Popular times” feature, which offers information on expected crowding for a wide range of destinations. In 2016, the company began augmenting the feature with real-time data, culled from users’ anonymized location data and searches, on whether a destination is busier or quieter than usual.⁹⁰ Such information can help tourists and locals alike decide whether to battle the crowds, wait for a lull, or go somewhere else.

Extend seasons and shift the focus of promotions

In destinations with significant peak seasons, smoothing arrivals over the course of weeks or months can be just as important as over the course of the day. These destinations have used a mix of actions to shift demand to shoulder or low seasons.

The number of visitors to the Greek island of Santorini, including both overnight visitors and day-trippers disembarking from cruise ships, has grown sharply, to almost two million a year. This increase has strained the island infrastructure in terms of water consumption and land use. Local authorities have thus begun to limit the number of cruise ships,⁹¹ and they are also trying to extend the season. Most Greek resorts close down in November or December, but on Santorini, an increasing number of hotels, restaurants, and attractions are staying open, helping to push some demand to off-season periods.⁹²

To relieve pressure on traditional tourist routes, Iceland has been promoting alternatives. In the summer, for example, Reykjavík’s city center can be busy. So the government has begun promoting Iceland’s winter attractions, such as the Northern Lights and Reykjavík’s New Year’s Eve fireworks, in an effort to disperse the traffic throughout the year.⁹³

Spread visitors across sites

Smoothing often goes hand in hand with efforts to redistribute visitors geographically—a tactic we call “spreading”—both across existing sites and to new destinations altogether. Spreading can help ease several of the challenges associated with overcrowding, from creating a more even distribution of tourists across residential areas to drawing tourists away from bottlenecks that cause long wait times and strain infrastructure. Achieving a better spread of visitors, however, can be challenging, particularly because many first-time visitors want to see the “must-visit” sites. As such, destinations may consider focusing these efforts more on repeat visitors.

In addition to the use of technology to nudge visitors in real time, which can aid in both smoothing and spreading, destinations can also pursue spreading initiatives by promoting less-visited attractions and developing new routes.

Promote less-visited attractions

Some countries and cities are shifting the focus of promotions away from their most-visited attractions. Iceland, for example, has been working to shift visitors away from overburdened areas by promoting the town of Akureyri, whose attractions include waterfalls and hot springs.⁹⁴ In addition to altering their own materials, tourism authorities can partner with tour operators, travel agents, and travel journalists to alter the messaging and imagery they use to promote less-visited attractions.

Visit Britain has partnered with several other tourism organizations in the United Kingdom to formulate a wide-ranging plan for the sustainable promotion of destinations in the United Kingdom.⁹⁵ For London, the plan aims to spread tourists beyond top attractions by inviting them to “experience the capital like a Londoner” and spend time in the city’s outer neighborhoods.

Venice’s tourism department has launched a campaign, “Detourism: Travel Venice Like a Local,” to promote “slow and sustainable tourism”; the idea is to encourage travelers to go beyond the typical attractions with suggestions of less-trafficked local experiences. The campaign, which began as a series of maps in 2014, now spreads its messages through multiple channels including a digital magazine and social media.⁹⁶

Spreading can, of course, be advantageous to the destinations that are struggling to attract visitors—and sometimes these destinations take matters into their own hands. The remote Faroe Islands, for example, took advantage of a total solar eclipse in 2015 that was visible in just one other location in the world.⁹⁷ The promotion resulted in the arrival of journalists and visitors from around the globe and bolstered tourism numbers not only in 2015 but the following year as well. These actions should always be taken as part of broader tourism management to ensure long-term sustainability.

Develop new routes and attractions

Some destinations are developing new routes and attractions to get people to travel to less-congested sites. The success of this approach requires close collaboration between the public and private sectors, as well as creativity in developing related infrastructure.

One objective of Iceland’s Tourist Site Protection Fund, for example, is to help create new attractions to distribute visitors across the country and relieve pressure on already-popular sites. A separate Route Development Fund is incentivizing flights into regional airports in Akureyri and Egilsstaðir.⁹⁸

Created in 2012, Japan’s Dragon Route (or “Shoryudo”) winds through the Chūbu region. Created through a PPP, it was designed to provide tourists with an enriching cultural experience—and one that coaxes them away from the congested Kyoto-Osaka-Tokyo corridor. The route features a wide range of historic and cultural sites, natural landscapes (including Mount Fuji), and hot springs. A website details five different options, allowing visitors to customize their experience.⁹⁹

95 The plan represents an example of a wide-ranging marketing campaign that is cognizant of many of the challenges laid out in this report. To learn more, see “Britain level tourism high level marketing plan 2017–18,” Visit Britain, March 2017, visitbritain.org.

Scotland's North Highland Initiative, a nonprofit established by Prince Charles, created the North Coast 500 in 2014 to build sustainable economic benefits for the remote northern peninsula. As with the Faroe Islands initiative, this effort was undertaken with the goal of attracting visitors rather than rerouting them—but it's a useful example of a successful new route that has changed travel patterns. The scenic, 516-mile road commences in Inverness and hugs the coast, offering breathtaking views of castles, mountains, beaches, and villages. As with the Dragon Route, a website offers several example itineraries.¹⁰⁰ In 2017, businesses along the route reported a 26 percent increase in foot traffic since the North Coast 500's opening.¹⁰¹

Some development is done with specific tourist segments in mind. Visit Flanders, for example, is developing art, food, and cycling products to appeal to specific types of tourists who are less interested in visiting the most popular sites.¹⁰²

New attractions need not require public or corporate participation. The Jeju Olle, a series of interconnected walking trails on Korea's Jeju Island spanning more than 234 miles, was created in 2007 by a former journalist who was inspired after visiting the El Camino de Santiago Trail in Europe. The Jeju Olle has been embraced by the local community, and hundreds of locally owned restaurants and street stalls are located on or near trail routes.¹⁰³



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Venice, Italy

Adjust pricing to balance supply and demand

Pricing can be an effective way to balance demand with supply. Increasing the cost is likely to limit the number of visitors, but it also raises issues regarding elitism and the impact on domestic tourists who may find themselves less able to access their own heritage. As such, destinations must approach pricing carefully and with input from all concerned stakeholders.

Tactics to adjust pricing include taxes and fees or price segmentation for different types of visitors—for example, students and locals. Newer approaches set pricing based on long-term sustainability costs or time of day. While raising prices can, in principle, address each of the five challenges associated with overcrowding, it is important to note that price changes will be most effective when clearly aligned with overall destination strategy and invested in the long-term sustainability of the sector. The perception that a destination is raising revenues on the back of travelers without a clear purpose can damage its reputation and cause visitors to lose trust.

Implement specific taxes and fees

While not for everyone, making a destination more expensive can certainly deliver a “high value/low volume” strategy. Perhaps the best-known (and extreme) example is in Bhutan, which requires each visitor to spend US \$200 per day in the low season and US \$250 in the high season. This “minimum package” includes accommodation, meals, and a US \$65 daily fee used for sustainable development.¹⁰⁴ This minimum has contributed not only to Bhutan’s ability to finance development activities but also to its perception among world travelers and the sector at large as a sustainable tourism destination. However, Bhutan still faces seasonality concerns—with visitors preferring to visit in May and October—and visitors tend to cluster in just a few destinations. Bhutan, like other destinations, could benefit from an approach that blends several tourism management tactics.

Charge the “actual” cost

Some destinations are able to set pricing to ensure the long-term sustainability of supply instead of optimizing supply and demand. Typically used at an individual site level, this tactic requires developing a detailed understanding of the long-term operating costs—including maintenance, training, and investments in sustainability—and setting prices accordingly.

Some destinations identify a specific need first. In late 2017, for example, the Eiffel Tower announced it is financing a €300 million renovation of the site through a 50 percent increase in ticket prices.¹⁰⁵ Others recognize a general maintenance need and implement entrance fees or raise them to fill the gap. Rome’s Pantheon will soon implement an entrance fee for the first time to help cover maintenance of the ancient monument, which draws seven million visitors a year.¹⁰⁶ The US National Park Service is considering doubling the entrance fees at some of its most popular national parks during peak season. The funds would be used for maintenance of roads, campgrounds, and bathrooms, as well as for other infrastructure needs. The 17 parks involved in the proposal account for 70 percent of all entrance fees collected by the 118 sites run by the park service, which also runs 299 sites that charge no entrance fees.¹⁰⁷

Shift to variable or tiered pricing

Differentiated pricing for various types of visitors is a well-established practice: many museums, for example, provide free or discounted admission to locals, students, or the elderly. Barcelona’s Park Güell and Montjuic Castle, for example, have established entrance fees for visitors while keeping the sites free for nearby residents.¹⁰⁸ New Zealand recently increased prices for foreign visitors on seven of its nine “Great Walks,” including the Milford Track, with the increased revenue financing conservation efforts.¹⁰⁹

Increasingly, we also see destinations differentiating pricing based on demand. The Burj Khalifa in Dubai, for example, charges different prices for tickets through its online booking system depending on the time of day (with a markup for sunset hour, for example). Even though peak hours command a premium, they often sell out.¹¹⁰

We would not be surprised if at least some destination pricing strategies evolve to truly dynamic pricing where costs change in real time (and could be linked to real-time alert systems to notify visitors). Such tactics are used in a variety of other industries, including online retail and airlines.



Athens, Greece

Regulate accommodation supply

Some destinations may find that regulating accommodation supply is an effective tool in managing growth.

For traditional hotels, the restrictions effectively control the distribution of new licenses. However, the explosive growth in home-sharing has accelerated pressures, as housing stock can be converted to short-term rental supply almost overnight. In addition to driving an increase in visitor numbers, home-sharing could have a side effect of raising long-term rental prices in certain markets, thereby alienating locals.¹¹¹

Home-sharing market regulations usually limit the number of nights per year that a short-term renter may let a property, restrict the categories of housing stock that can be let, crack down on unlicensed apartment rentals, or ban home-sharing altogether. In Spain, Barcelona, Ibiza, Majorca, and the Balearic Islands have all recently passed regulations on short-term rentals.¹¹² In the United States, short-term rentals have been heavily regulated in the state of New York and in New Orleans' French Quarter.¹¹³ The type of regulation most suited to a destination varies based on its unique situation and characteristics, including the source of tourism (leisure versus business, day-trippers versus overnight visitors, and so forth) and the current balance of the long-term and short-term rental markets.



Limit access and activities

In cases where alienated local residents, damage to nature, and threats to culture and heritage have reached a critical stage, the tactics described so far may not be enough. As such, some destinations are limiting or even banning certain activities related to tourism. In 2017, for example, Amsterdam banned the opening of additional tourist-focused shops, including souvenir stores, bicycle rental companies, attractions, and fast-food restaurants, in its city center.¹¹⁴ Officials in Rome banned drinking in the streets between midnight and 7 a.m.¹¹⁵ Antalya, Turkey; Hvar, Croatia; and Majorca, Spain, have also banned or restricted public drinking in response to tourist misbehavior.¹¹⁶

A common tactic in many historic city centers, particularly in Europe, is to ban certain forms of transportation to curb overcrowding and congestion. Amsterdam recently banned “beer bikes,”¹¹⁷ and some have called to ban buses from the city center.¹¹⁸ Barcelona has banned Segways and electric scooters from its old city center and seafront.¹¹⁹ Officials in Rome have also called for a prohibition on tourist buses in its city center.¹²⁰

In the areas most at risk of alienating locals, suffering damage to nature, and experiencing threats to culture and heritage, leaders are prohibiting visitors either temporarily or even permanently. France’s Lascaux Cave, whose walls feature hundreds of prehistoric paintings, was closed to the public due to the damage caused by visitors’ exhalation of carbon dioxide, among other elements introduced by humans’ contact with the cave.¹²¹ And the Uluru-Kata Tjuta National Park board in Australia recently voted to ban climbing on the sacred Uluru Rock.¹²²

Bans and closures are painful. Such actions should be a last resort after consultation with stakeholders. In addition, there needs to be an efficient enforcing mechanism. Rome, for example, implemented stiff fines for climbing on, eating near, or splashing in the city’s many fountains—and established a volunteer workforce of retired police officers to patrol popular attractions during the 2017 peak season.¹²³



Each destination will need to identify the actions that address their specific challenges from overcrowding. In most cases, integrated approaches will be the most effective. For example, the United Kingdom’s plan to spread tourists to various neighborhoods in London and across Scotland’s beautiful terrain is accompanied by a smoothing plan to encourage tourists to visit during the off-season.

5.

Ipanema Beach
Rio de Janeiro, Brazil



BEGINNING THE CONVERSATION



T&T will only grow from here. The industry will create new jobs, new opportunities, and new experiences, as well as be a force for peace in the world. The challenges of growth, and particularly overcrowding, are apparent, but many destinations are struggling to strike the right balance of meeting the needs of businesses, local residents, and tourists. The goal of our work is to bring structure and facts to an issue that has long been characterized by anecdote and emotion.

The example set by destinations at the country, city, and site level offer a playbook of options. To replicate these successes, though, destinations need to build a solid foundation of data, engage stakeholders, and identify stable sources of funding. Only then can they create a synchronized, integrated tourism management strategy.

This report is just the beginning of the conversation. We hope T&T leadership will use our work to engage more deeply, and critically, with other stakeholders—whether from the public sector, private business, or local residents. Together, we can create a future in which our planet's natural and man-made treasures are both protected and celebrated.



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Appendix: Heatmap of 68 cities

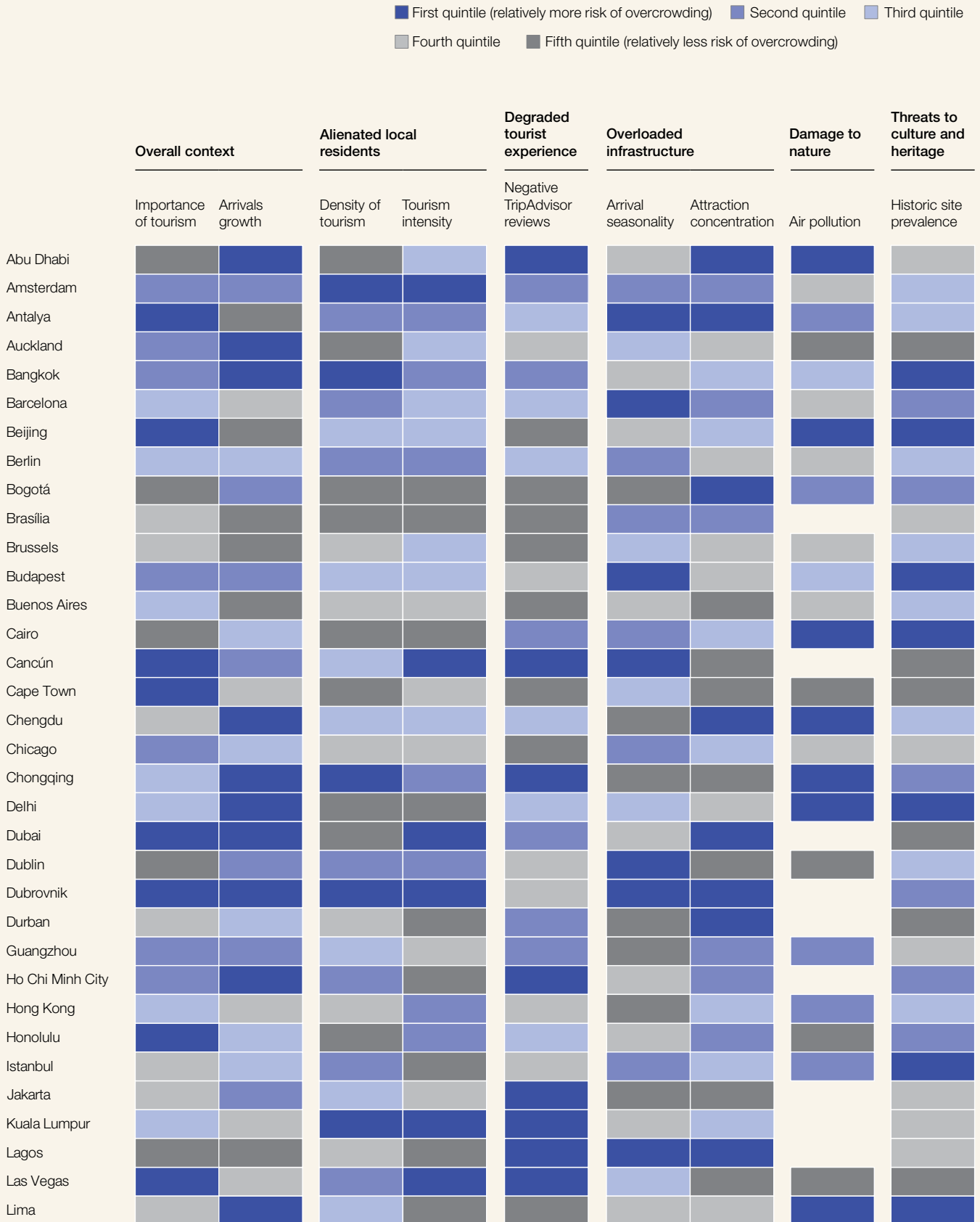
In addition to the four cities—Barcelona, Spain; Buenos Aires, Argentina; Chongqing, China; and New York City, United States—that we detailed in the report, we ran the full diagnostic on all 68 cities in our initial sample. The results of that diagnostic are presented in this appendix. As a reminder, these quintiles are not a scale of good to bad, but rather highest risk of experiencing a given overcrowding problem to lowest risk of experiencing that problem:

- 1. Top quintile:** Among the top 20 percent of the sample in terms of overcrowding risk (highest risk).
- 2. Second quintile:** Among the top 40 percent of the sample in terms of overcrowding risk.
- 3. Third quintile:** Among the top 60 percent of the sample in terms of overcrowding risk.
- 4. Fourth quintile:** Among the bottom 40 percent of the sample in terms of overcrowding risk.
- 5. Fifth quintile:** Among the bottom 20 percent of the sample in terms of overcrowding risk (lowest risk).

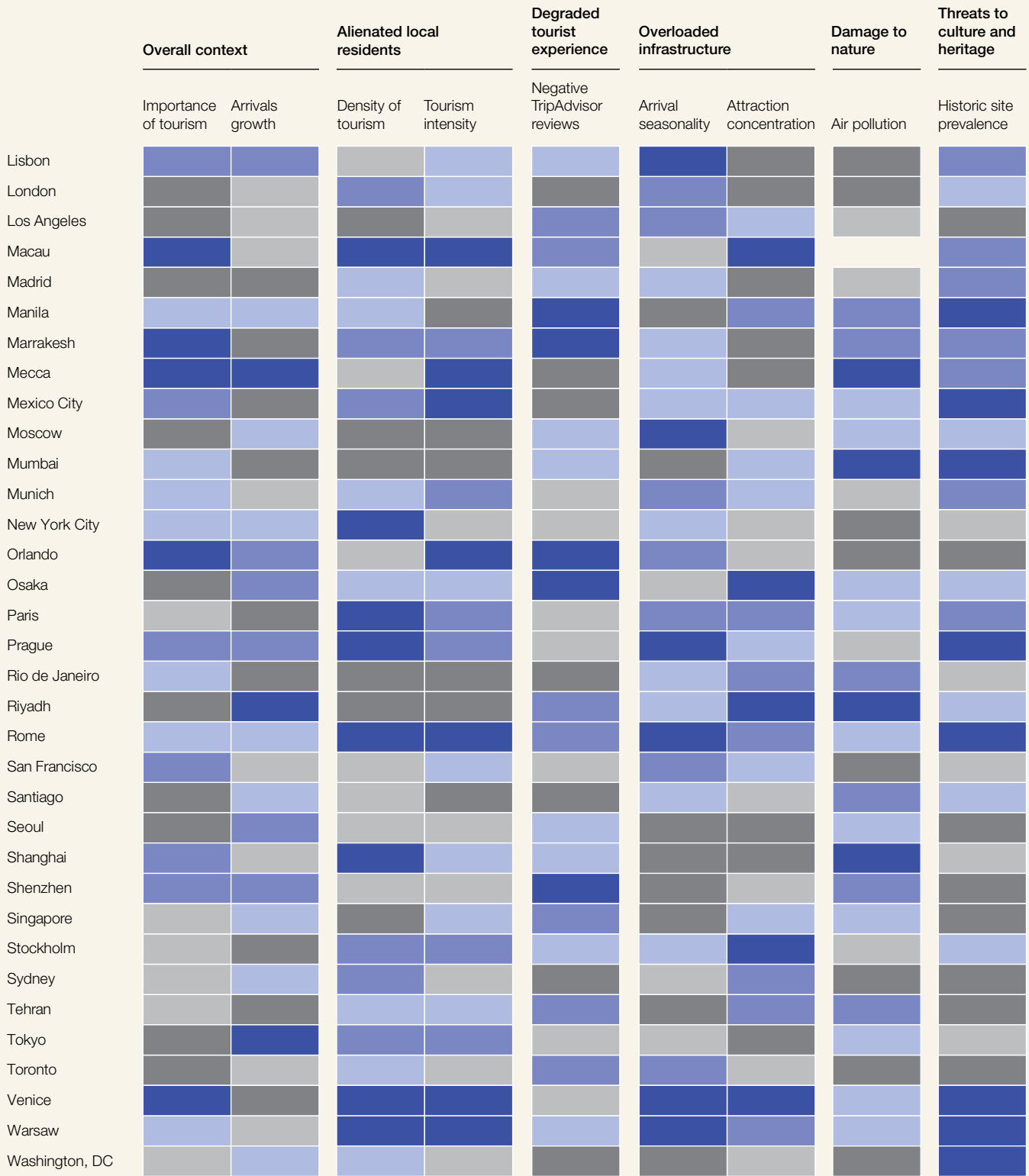
The quintile with the highest risk of experiencing a given overcrowding problem is shown in dark blue; the 20 percent with the lowest risk are shown in dark gray. These quintiles are relative, so a top quintile result doesn't mean a destination is currently experiencing a degraded tourist experience—but that it's *at risk* of that problem, and vice versa for fifth quintile results.

For consistency, we used the same data that were collected to develop benchmarks, but in applying the diagnostic, we encourage destinations to use the most precise data they have, which is often from local sources and research.

Heatmap of 68 cities in initial diagnostic



Note: For the air pollution metric, which we used as a proxy for damage to nature, the most robust data source available did not include information on some of the cities in our sample, hence the gaps in the heatmap.



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