Tourism on the Move in a Changing Climate

Rising temperatures, higher sea levels and degraded habitats will have serious impacts on almost every sub-sector of the tourism industry. But options exist to help the industry adapt to climate change.



Cities and Urban

Centre Tourism

RISKS

An estimated 150

currently live in cities

with perennial water

shortage, a figure

which could rise to

IMPACTS

Half to two-thirds of Asia's

cities with 1 million or more

inhabitants are exposed to

one or more climate-related

cyclones the most important.

hazards, with floods and

1 billion by 2050.

MITIGATION

The built environ-

ment accounts for

climate impact:

20% of the sector's

retrofitting or ener-

gy-efficient new builds

would cut emissions.

million people

RISKS Likely impacts

ADAPTATION How the ndustry can respond

> **MITIGATION** What tourism can do to reduce its emissions



Mountain and Snow Tourism

Snow sports are at obvious risk from rising temperatures with lower-elevation resorts facing progressively less reliable snowfalls and shorter seasons. But other types of mountain tourism are also vulnerable, as infrastructure is put at risk from melting glaciers and thawing permafrost.

Forest and Lake Tourism

Outdoor activities will be affected by large-scale forest dieback and more widespread wildfires triggered by sustained drought and higher temperatures. Longer fire seasons will reduce access to national parks. Rising temperatures will change lake habitats, affecting fishing tourism.

Biodiversity and Agricultural Tourism

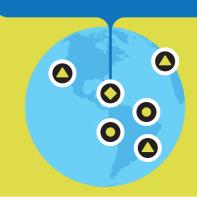
As temperatures rise, the geographical dispersal of flora and fauna will change, as species shift to conditions to which they are better adapted. Given that many nature reserves are geographically isolated, this may prove difficult or impossible for many iconic species.

Beach and **Coastal Tourism**

IMPACTS Sea levels are estimated to rise 0.45-0.82m higher than present by the end of the century if emissions continue to rise at the current rate.

RISKS Degraded beaches reduce the desirability of destinations, and beach erosion can reduce the prices that operators can charge for accommodation.





Cities and Urban Centre Tourism

City visits account for a large percentage of the global tourism industry. Across the world. city infrastructure is exposed to a range of climate impacts, including extreme heat events water shortages and flooding. Coastal cities, meanwhile, are at risk from sea-level rise.

Beach and Coastal Tourism

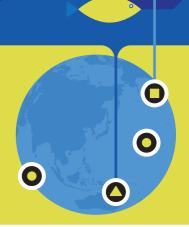
Rising sea levels and more extreme weather events threaten beaches and coastal infrastructure enioved by hundreds of millions of tourists each year. While adaptation can protect at-risk infrastructure, beaches are difficult to protect without reducing their attractiveness.

Ocean and **Sea Life Tourism**

ADAPTATION The decline in seg ice is expected to add to an already rapid increase in Arctic cruises.

IMPACTS Distributions of fish and other marine fauna are chanaina as the oceans warm, impacting recreational fishing and marine animal watching.

RISKS 2°C of global warming by 2050-2100 and ocean acidification would would see reef structures degrade with serious consequences for tourism. Mass coral bleaching and mortality becomes an annual risk under all climate scenarios, with mass mortality events beginning to occur every 1–2 years by 2100.



Ocean and Sea Life Tourism

The combination of rising water temperatures and increasing ocean acidification, caused by the absorption of carbon dioxide, spell particular peril for reef ecosystems and the dive tourism they support. Warming sea temperatures will also change the distributions of fish and marine mammals.