



Assessment of climate-related impacts and risks on the tourism sector

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Climate constitutes a natural resource for the tourism sector, promoting tourism activities and supply. From the potential impacts of changing climate conditions, risks can arise, with adverse consequences on natural and human systems. For impact and risk assessment, climatic impact-driver (CID) framework was introduced in the recent IPCC assessment report. Main climatic impact-drivers affecting tourism include decrease in snow and ice, coastal erosion, sea level rise, or changes in hot and cold extremes. According to the recent risk framework in IPCC, the drivers of climate-related impacts and risks are the interplay between the CIDs (hazards), the exposure of the system affected and the vulnerability of the system to the adverse conditions. The most commonly used tool for objective, quantitative climate impact and vulnerability assessments on different sectors (including tourism) is the CIVAS model (Climate Impact and Vulnerability Assessment Scheme), which was based on the approach in the fourth assessment report of IPCC. The model describes the natural, economic and social vulnerability caused by climate change as a complex indicator by integrating exposure, sensitivity and adaptive capacity factors. In addition, a more recent, the so-called dynamic vulnerability assessment method provides a practical and real understanding of the dynamically changing environmental vulnerability on tourism with the toolbox of interviews, experimentation and experience by involving experts and stakeholders in tourism. In the presentation, the most important climate-related hazards, impacts and consequences affecting tourism are identified. Then major assessment methods are overviewed at conceptual and methodological level based on recent literature to study the complex climate-related vulnerability, impacts and risks on tourism.

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