

16 Zero impact nature-based tourism

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Introduction

The climate crisis is one of the greatest challenges of our time. Tourism can also make an important contribution to solving these problems (Lenzen et al. 2018). Nature-based tourism is thereby of particular importance. This is especially because it is generally viewed as a more ecological version compared to other forms of tourism. Nature-based tourism offers a lot of experience in the field of sustainable development. In addition, it represents a growth in tourism worldwide (Haukeland et al. 2021). It is now a matter of further developing this form of tourism into a zero impact nature-based tourism.

In 2015, as part of the Paris Climate Agreement, the international community decided to limit the average global warming to well below 2 degrees Celsius compared to pre-industrial times, with a target of 1.5 degrees Celsius increase in temperature in order to prevent the most catastrophic damage to the climate (IPCC 2018). In the wake of the Paris Climate Agreement, numerous countries have announced that they want to reduce their greenhouse gas emissions to net zero by 2050 at the latest. These climate goals result in a special challenge for tourism, which contributes significantly to global warming with its greenhouse gas emissions on a global level as well as in individual countries (Loeh, Becken 2021).

For tourism as a whole, the question arises as to which function it should play within the framework of the internationally established net zero goal. On a global scale, climate-damaging air traffic represents the greatest challenge for the tourism industry: Will tourism have to cope with significantly fewer flight kilometres in the future? How can the long-distance tourists that are no longer available in the destinations of the global south be replaced? Or will drive technologies for aircrafts be developed in the future that are climate-neutral? At a regional level of tourist destinations, too, a number of extremely relevant fields of action are affected with regard to climate protection. Mobility also plays a central role here, but there are also major

challenges for the hotel industry and other areas with high greenhouse gas emissions (Gössling 2021).

Goals and criteria for zero impact nature-based tourism

When we speak of zero impact nature-based tourism, we think of nature-based, climate-neutral tourism that will reduce its greenhouse gas emissions to net zero by 2050 at the latest. Comprehensive goals for sustainable, nature-based tourism have been defined on various occasions and substantiated with precise criteria and indicators (Siegrist, Ketterer 2017; Siegrist et al. 2019). Aspects relevant to climate protection have already been of great importance, e.g. in the area of mobility or the hotel industry. Against the background of the need to develop zero impact nature-based tourism, such criteria are sharpened here with reference to consistent climate protection.

Target area	Characterization
Strategy and positioning	Der natur- und kulturnahe Tourismus, der Klimaschutz, die Aufwertung von Natur und Landschaft sowie die Förderung der Biodiversität besitzen in der touristischen Strategie der Tourismusdestinationen einen hohen Stellenwert. All dies bildet ein Kernelement ihrer Positionierung. Nature-based and cultural tourism, climate protection, the valorization of nature and landscape and the enhancement of biodiversity have high priority in the tourism strategy of the tourist destinations. All of this forms a core element of their positioning.
Development of products	The tourist destinations pursue a professional development of attractive and marketable natural and cultural products, so that these offers and activities represent an essential and clearly visible part of the overall offer. The participation of the population is crucial.
Mobility	Sustainable, climate-neutral traffic planning is a core component of the destination strategy. The promotion of arrival and departure by public transport, e-mobility and non-motorized traffic is of central importance. Traveling by plane is avoided.
Protection of climate, nature and landscape	The tourist destinations make climate protection their top priority and take measures to avoid and reduce greenhouse gases. At the same time, they support the creation and maintenance of landscape and nature reserves in sensitive natural areas. If necessary, they also accept harsh visitor management measures. In doing so, they maintain active cooperation with nature and environmental protection associations.
Communication and marketing	Climate protection as well as the natural and landscape values form a core component of the marketing strategy of the tourism destinations; these values are actively communicated to the outside world. For example with the development and positioning of climate-neutral destinations.
Value added	The connection of regional value added, climate protection, nature conservation, landscape development and biodiversity enhancement is a priority for the tourist destinations.

Tab. 1: Target areas of nature-based tourism with the inclusion of climate protection

For each of these six target areas, five criteria with indicators including measurement regulations are formulated. For reasons of space, the indicators are not shown here. The aim is to put tourism destinations in a position to formulate in detail the goals and measures for climate-friendly, nature-based tourism for their region and to check whether they have been achieved.

Discussion

Even if we do not yet know exactly what to expect in connection with global warming, it seems clear that there will be major challenges in the next few decades. Not only for nature-based tourism, but also for society and the economy as a whole, of which the travel industry is an essential part. What will a "net zero world 2050" look like? How does zero impact nature-based tourism develop on this basis? The only certainty is that such a world will have to do largely without fossil fuels. Renewable forms of energy will be used to a much greater extent than is the case today. In this sense, an outlook on a net zero nature-

based tourism is associated with many open questions that can only be answered in the course of the next few years and decades.

To this day, however, climate change and the resulting need for action are hardly an issue for many tourist destinations. Some tourism officials turn a blind eye to the impending changes and see no options for taking the destinations on a climate-neutral path. But tourism, and in particular nature-based tourism that has already been sensitized to issues of sustainable development, is required to make a significant contribution to climate protection. This is not least because the climate-damaging greenhouse gas emissions from tourism are particularly high. Clearly formulated instruments such as the presented criteria for the development and implementation of effective measures can help, at the level of the individual tourist destinations as well as at a higher level.

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