

3

Tourist Mobility: Is transport a necessary evil?

Matthias Olthaar

Learning goals

This chapter helps readers to understand and critically evaluate different measures to address sustainability issues in tourist mobility. It covers:

- 1 The environmental impact of tourist mobility;
- 2 Suggested solutions for mitigating problems and accompanying challenges and dynamics in practical situations;
- 3 Solutions from three different perspectives: 1) technological, 2) human behaviour, and 3) policy.

Introduction

Tourism and hospitality create value for both consumers and providers of tourism and hospitality-related activities. Though current consumers and providers of tourist activities can appropriate this value in terms of respite, renewal, and happiness for consumers, and economic development, income and job generation for providers, future generations may well be prevented from being able to appropriate the same value (Becken, 2006; McKercher *et al.*, 2010; Nawijn and Peeters, 2010; Jones, 2014). Climate change makes tourism and hospitality, as we currently know them, victims since global warming and loss of biodiversity threaten the attractiveness of many currently popular tourist locations. However, tourism and hospitality simultaneously contribute a relatively large extent to global greenhouse gas (GHG) emissions (Ram *et al.*, 2013). A rough 5% of global GHG emissions were attributed to tourist activities, in a 2008 report by the United Nations World Tourism Organization (UNWTO). A large part of the tourism sector's share in global GHG emissions comes as a result of tourist transport activities. Tourism and transport are inextricably linked. In the past few decades tourist mobility increased significantly for all transport modalities (airplane, coach, automobile, cruise ship, etc.) and this trend is predicted to continue even further. This poses

serious threats for the global climate. Consequently an increasing number of both practitioners and scholars ponder on opportunities to provide tourists with the same value yet through different means. This chapter explores opportunities to engage tourism and hospitality in the transition to a global carbon-neutral society, with a focus on transport.

Tourist mobility has various effects on the natural environment other than climate change, such as loss of biodiversity, soil erosion, and water, air, and soil toxicity. This is a consequence of both the *use* and *production* of transport modalities and related infrastructure. The focus in this chapter is on GHG emissions and climate change. Though transport is not directly in the sphere of influence of hotels and other providers of tourism and hospitality-related activities, it is in their sphere of concern due to their dependency on tourist flows. It is therefore of great importance to include a discussion on tourist mobility in a book dedicated to sustainable value creation in hospitality. In exploring opportunities to make tourist mobility carbon-neutral, three pathways to achieving this are being discussed: 1) technological innovations, 2) behavioural change of tourists, and 3) institutional innovations (i.e. policy making). We find that technological innovations 1) will likely fall short in solving the sustainability issues. In order to address these challenges behavioural change 2) is needed. Yet, since large-scale behavioural change is unlikely to come voluntarily, 3) institutions need to be designed that prescribe people's behaviour in more sustainable terms.

The chapter continues as follows: first, as a concluding part of this introduction, we define our concept of transportation. The major sustainability challenges are being addressed next. There is then a selection of best-practice cases, followed by a discussion of tools to address these challenges. The chapter then concludes and provides references for further reading.

Let us now define transportation and its relationship with the academic discipline logistics. Logistics distinguishes various sub-disciplines, including distribution logistics, production logistics, service logistics, and reverse logistics. Logistics is pre-dominantly concerned with the optimization of the flows of goods, information, and money. These can be flows between organizations, but also within organizations. Distinctions are made between flows of goods in which goods undergo a physical transition, and flows of goods in which the goods do not undergo any physical transition. Transportation concerns the latter and is part of the sub-discipline distribution logistics (Visser and Van Goor, 2015). In the current chapter, transportation does not relate to the flow of goods, information, and money, but only the transportation of tourists. In other words, transport in this chapter is not about transport activities to supply goods to tourist accommodations, but instead concerns tourist mobility. The term 'mobility' covers transport modalities, and also the number of trips, travel distance, time, speed, and cost (Ram *et al.*, 2013). The term 'tourist' should be read as all kinds of travellers that consume tourism and hospitality services and includes businessmen, visitors of events, day trippers, other recreational travellers, etc.. For the ease of reading we refer only to tourists, but the discussions relate to other travellers as well.

Sustainability issues related to transportation of tourists are similar to sustainability issues related to the transportation of goods. In both cases emissions of greenhouse gases, use of transport modalities, and the construction and maintenance of infrastructure are important issues from an ecological perspective. From the social perspective, global trade facilitated by global transportation supports economic development of poor areas and job generation for people. This is an argument to stimulate global trade, despite the needed transportation. Solutions, however, require a different approach for the transportation of tourists than for the transportation of goods. The differences are rooted in various causes:

- Tourists have different mobility needs than goods (e.g. moving from road to marine transportation is not as doable for tourists as it is for goods),
- Shortening transportation routes by means of, for example, bringing production and consumption sites closer to one another is often not possible as major tourist attractions such as the Niagara Falls or the Colosseum in Rome cannot be replaced, and
- Tourists do not have the same incentives as logistics professionals to work on transportation efficiency. This is predominantly relevant when tourists use their own transport modalities.

Main sustainability challenges

Tourism and hospitality brings major benefits to both consumers and providers of tourist activities. Tourists enjoy respite and renewal, happiness, experiences different from daily life (novelty), escape, and enhanced relationships resulting in positive emotions (Nawijn and Peeters, 2010; Ram *et al.* 2013; Jones, 2014). Providers of tourism and hospitality such as regions, individuals and organizations, including hotels and restaurants, enjoy job and income generation as well as tax and foreign exchange revenues (Becken, 2006; McKercher *et al.*, 2010). The size of the global travel and tourism economy was US\$ 5,869 billion in 2016 (i.e. over 8% of global GDP), and the industry is responsible for 1 out of 13 jobs on the planet (WTTC, 2017). A note is due here: the World Travel and Tourism Council (WTTC) distinguishes between direct, indirect, and induced contributions of travel and tourism. The figures provided here are the direct and indirect contributions combined. Next to direct contributions, indirect contributions are important to the industry. They include things such as expenses on new aircraft, investments in hotels, governmental tourism and marketing agencies. The induced contributions concern the economic effect resulting from the spending of people directly and indirectly employed by the travel and tourism industry. For a full explanation of these concepts you are advised to read the report (WTTC, 2017).

The sector continues to be the largest and fastest growing sector worldwide (McKercher *et al.*, 2010; May, 2012). Benefitting economically from this is of great interest to policy makers, entrepreneurs, corporations, and workers. Nonetheless,