Chapter 1

Relevance of Impact Studies on the Environmental Impacts of Tourism and Sustainability: A Review and Analysis

Ravi Sharma
Symbiosis International University, India

Prakash Rao
Symbiosis International University, India

ABSTRACT
The chapter investigates the relationship and trends in tourism-environmental impact studies in research communities for past 10 years. It discusses the various components and categories of the environmental impacts within context to the tourism. To achieve the purpose, a bibliometric study of the Scopus-indexed publications was conducted and analyzed for three themes using the Scopus search-defined parameters. During the search defining parameters, a total of 125, 28, and 88 relevant documents were obtained from the database for the theme, tourism-environmental impact overall studies, tourism-environmental impact and carrying capacity, socio-cultural and perception-based relevant studies, respectively. Based on the results, the authors conclude that there is a significant increase in environmental impact and tourism-related studies in the past 10 years. European countries have a major contribution towards environmental impact and tourism studies as compared to other Asian countries. The technical studies using tools of assessment for environmental impacts and tourism linkages is still insufficient.

INTRODUCTION
The science of ecology is increasingly being applied to different environmental problems. Among these, environmental management is a subject of great concern with a rapid increase in the nature of problems and their complexities (Sherbinin et al., 2007). Among one of these, the relation of tourism and the environment is of great concern in recent times. Tourism, a global industry has involved hundreds of

Relevance of Impact Studies on the Environmental Impacts of Tourism and Sustainability

millions of people in international as well as domestic travel each year (WTTC, 2015). According to the UN World Tourism Organisation (UNWTO) in 2014, the tourism sector, in terms of international tourist arrivals recorded a high of 1.133 million arrivals worldwide (UNWTO, 2015). The international tourist receipts are the earnings generated in destination countries from the expenditures on accommodation, food and drink, local transport, entertainment, shopping and other goods and services (Habibullah et al., 2016). According to UNWTO 2015, the Asia Pacific region constitutes 263.3 million numbers of the tourist arrival in 2014 and recorded 4 per cent growth in International tourist receipts. Africa and the Middle East also recorded +2 per cent and +3 per cent growth respectively in international tourist arrival from 2013 to 2014 being developing countries (UNWTO, 2015). The relationship between the environment and the tourism is a very close one and connected to the impacts on economy and in particular to environment (Habibullah et al., 2016) and threat on biodiversity conservation (UNEP, 2013; Christ et al., 2003). Rapid tourism development adversely impacts and negatively transforms not only natural areas like forests, marine environment, wetlands, wildlife, etc but also transforms negatively behavioral pattern of local communities and their perception towards tourism development (Sharma et al., 2016; Du Plessis et al., 2013). World Heritage Sites and archaeological important sites (Leong, et al., 2017).

Even before the Rio–Summit in 1992 and the signing of the UN Convention on Biological Diversity (CBD), the importance of the interrelationship between the tourism and biodiversity had been realized. In the last decade noted that tourism depends ultimately upon the environment, as it is the major tourist attraction itself, or is the context in which tourism activity takes place (Barros, et al., 2015; Buckley, 2012; Scherrer et al., 2011; Holden, 2000). Researches pertaining to the physical environmental impacts mainly observed and recorded environmental changes occurring in recreational areas has been increased in recent years (Gonson et al., 2017; Yang et al., 2017; Lee & Hsieh, 2016; Ballantyne & Pickering, 2015; Huhta & Sulkova, 2014). The mass tourism is one of the main causative phenomenon for biodiversity loss (Musoro et al., 2017; Gladstone et al., 2013; UNEP 2002). Research and reports on the environmental impacts of the tourism illustrated the fact that: “A high-quality environment is essential for tourism while the quality of the environment is threatened by tourists’ development itself….because of its economic importance” (Leong et al., 2017; OECD 1980). Thus, on the one hand, environmental resources provide one of the necessary “ingredients,” a critical production factor, for the production of the tourist product: the natural and man- made a setting for the tourist to enjoy, live in, and relax. On the other hand, tourism produces a variety of unwanted by-products, disposed of, intentionally and unintentionally, to and modify the environment; the case of the negative environmental externalities (Banday & Ismail, 2017; Mejia & Brandt, 2017; Sun, 2016; Meleddu & Pulina, 2015; Briassoulis, 1992). In many regions of the world, tourism now represents a major threat to the environmental integrity of host regions, and hence constitutes a major management problem to be faced (Dong et al., 2015; Kaján, 2014; Kasprzak, 2011; Edgar et al., 2010; Finkl & Charlier 2003; Reading et al., 1994; Butler, 1991) by those responsible for the management and policy implementations. In a broad view, environment in relation to the tourism area encompasses the full range of elements of an area, including human as well as physical factors.

Among the three impacts namely, economic, socio-cultural and ecological, the economic impacts have undoubtedly played a dominant role in the tourism literature and policy making (Scott & Chhabra, 2017; Anderson & Lundberg, 2013; Collins et al., 2012; Campbell et al., 2015). With the focus on the economic benefits obtained by the areas due to the development of tourism, the socio-cultural and environmental impacts get ignored late till 1980s. But the fact is that the tourism has an adamant, intricate, but fragile relationship with the ecology and environment (Tonelli et al., 2017; Zhang et al., 2016; Su et al., 2014; Kamra, 2001). The increasing popularity of recreation in natural settings has combined in a cause-effect...