



Tourism Sustainability: Climate Change and Carbon Dioxide Emissions in South Africa

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ABSTRACT

In line with the 2030 Agenda of Sustainable Development initiated by the United Nations, a climate-resilient development strategy is in a need for the South African tourism. Following the principles of sustainable tourism development, the empirical analysis in this study intends to discover the dynamic relationship between climate change and tourism demand in South Africa. With the adoption of the “Triple Bottom Line” framework, our findings revealed the essential steps for South Africa to address the environmental, social, and economic factors necessary for the development of a sustainable tourism. By adopting the Autoregressive Distributed Lag (ARDL) approach, the present study confirmed that carbon emission leaves a negative impact on the tourism industry in South Africa. Therefore, it is crucial for the tourism practitioners and policy makers to improve the economic efficiency by paying more attention on the carbon dioxide emissions to balance the tourism development and environmental protection for long term sustainable growth for the South African tourism.

Keywords: Climate Change, Sustainable Development, Tourism Demand, ARDL Approach, Triple Bottom Line

JEL Classifications: P48; Q54; Z3

1. INTRODUCTION

Climate change is the defining global issue of our time. The climate has an interwoven relationship with the tourism industry, playing a crucial role in influencing the attractiveness of tourism destinations. It has become a kind of truism that a sustainable development is vital for the tourism industry and should be the centre of attention for tourism practitioners, policy makers and industry players. The concern for sustainable development began when the Brundtland Report stated that intergenerational equity is simply unachievable, unless the impacts of environmental on economic activities are constructively addressed (WCED, 1987). Ironically, mass tourism brings detrimental environment impacts due to the amount of human activities involved in promoting tourism. This focuses particularly on the carbon emissions generated by local economic development, including the tourism sector, to promote a more viable economy especially in developing

countries. Indeed, the diversity of tourism activities can contribute to government revenues, employments, transportations, and foreign income investment, but preferably not at the expense of the environment as we are striving towards achieving net zero carbon emission. As such, a sustainable development of tourism sector is crucial to play a pivotal role in nurturing a circular economy that is more bearable, equitable, and viable for a nation's growth.

According to the World Tourism Organization (UNWTO), the export earnings generation from world tourism was at USD5 billion a day in 2019, indicating the importance of tourism in export diversification to reduce trade deficits. The global tourism sector generated USD1.7 trillion in exports in the same year, which accounted for 6.8% of global exports and 28.3% of global services exports (WTTC, 2020). At a regional level, the African region received 73.1 million international tourist arrivals with an increment of 5.0%. Such significant growth had generated