

## Aspects of Sustainable Tourism Development and COVID-19 Pandemic

Md. Anowar Hossain Bhuiyan<sup>1\*</sup>, Shafiqul Hassan<sup>2\*</sup>, Md. Abud Darda<sup>3</sup> and Md. Wahidul Habib<sup>4</sup>

<sup>1</sup>Assistant Professor (Management), National University, Gazipur-1704, Bangladesh  
(anowarlestari@gmail.com)

<sup>2</sup>Assistant Professor, Prince Sultan University, Riyadh 11586, Kingdom of Saudi Arabia  
(shassan@psu.edu.sa)

<sup>3</sup>Associate Professor (Statistics), National University, Gazipur-1704, Bangladesh (dardabd@gmail.com)

<sup>4</sup>Assistant Professor, Faculty of Business, ASA University Bangladesh, Dhaka, Bangladesh  
(wahidul123@yahoo.co.uk)

\*Corresponding Authors

### Abstract:

The Corona Virus (COVID-19) pandemic situation has posed significant effect on tourism industry. Tourism destinations have embraced emergency health care measures and restrictions imposed on human movement around the world. Beaches and resorts are empty, peoples' movements are stopped and travelling between territories is strictly controlled. The COVID-19 lockdown around the world has imposed negative impact on the livelihood of people and world economy as well. The present study attempts to find out the scopes for sustainable tourism development in near future from the consequences of social, economic, and environment in COVID-19 pandemic situation.

**Key-words:** COVID-19; Economic; Environment; Development; Social; Tourism

### Introduction:

More than 200 countries in the globe are affected by the Corona Virus (COVID-19) pandemic. The situation has been regarded as symptom of discrimination and deficit of social advancement in the affected countries. It also creates social, economic and political crisis in the infected territories [6]. The estimate of [36] revealed that the Corona virus pandemic will be infecting 7.0 billion people and causing 40 million deaths in worldwide. Most of the countries in the world have implemented lockdown of cities, closure the borders and other essential health measures to prevent the pandemic [50].

The world seems to be stagnant from all formal activities for several weeks that adversely affect each and every sector of life. The pandemic situation has affected tremendously the tourism industry in worldwide. Most of the destinations in the world have embraced coronavirus related restrictions. Again, [11] estimated that tourism industry needs at least one year to recover the losses in present situation. World Tourism Organization (UNWTO) estimated that pandemic coronavirus situation will decline 290 to 440 million international tourist arrivals which is 20% to 30% of total arrivals in 2020. This decline will reduce US\$300 to 450 billion in international tourism receipts and it will be lost of five to seven years' tourism worth of growth [35]. According to World Travel and Tourism Council (WTTC), pandemics COVID-19 situation has cut about 50 million jobs and about 75 million jobs at risk in worldwide. It is predicted that the

tourism industry need at least 10 months to recovery after outbreak the pandemic situation. The COVID-19 condition has affected Asia as worst and Small Island Developing States (SIDS) has impacted heavily due to high dependency of their economy on tourism [40].

Several crises like economic rescission, environmental degradation and political instability have influenced in tourism demand [8]. Some crises need short-term recovery to continue tourism services and activities [3]. But present COVID-19 pandemic makes difficult to manage and needs long-term survival approaches like Ebola-related tourism crisis in African countries [27]. Moreover, [24] suggested for post-crisis recovery strategy in tourism and [20] emphasized on macro level strategy to provide guidelines for crises orientation in tourism.

The COVID-19 has negatively impacted on the livelihood of people and economics around the world. During this pandemic span social, economic, religious, and cultural activities have been disrupted due to maintain physical and social distances. Several researchers [14, 38] have emphasized on extensive researches on COVID-19 and related consequences. Moreover, [10] suggested that future research will be concerned to incorporate the measure of sustainability in terms of social, economic, and environmental aspects. The present study attempts to find out the scopes for sustainable tourism development in near future from the consequences of social, economic, and environment in COVID-19 pandemic situation.

### **Social Impacts and Tourism:**

The COVID-19 becomes a major cause of infection and death of peoples in all age groups in the affected countries. Due to mass gathering and panic various social, cultural, political and sport events has been canceled and some international occasions like Hajj, Umrah, Olympic Games, summit, conferences and exhibitions are suspended for indefinite time [6]. The social, religious and economic transformations face challenging circumstances in mass occasion arranging countries [46]. Saudi Arabia has attracted 10 million pilgrims in every year for Hajj and Umrah [45]. This year maximum number of pilgrims will lose for the pandemic infection. The COVID-19 circumstances bring social and cultural changes in the world for social distancing.

The COVID-19 pandemic situation suggested avoiding mass gathering functions like conferences, sports events, business meetings, fashion shows, and marriage ceremony, which have great social impact [1]. Present lockdown conditions in worldwide will influence on labor productivity and cause lower tourism outputs. Tourism demand also decrease in this situation due to health risk on human mobility [39]. Again, [25] have suggested to virtual tours for tourists in parks, museums and other attractions due to COVID-19 lockdown circumstances. Moreover, [33] pointed that virtual visits create positive intention of tourists to visit a place physically. Furthermore, some other studies [12, 34] have suggested for interactive tours through technological adoptions when mortality threats increased.

The pandemic situation has created several social impacts on tourism sector. There are several issues will be suitable for sustainable tourism development on social aspects. The mentionable social aspects are guest-host interaction [16], social motivation [41], social experiences [26], community perception [21], and socio-cultural impacts [15]. Again, several researchers [25, 51]

have suggested for the tourism development in experimental approaches, causal effects, virtual tours, and attitudes of tourists during the COVID-19 situation.

### **Economic Impacts and Tourism:**

The aviation sector is highly effected in globally for this COVID-19 pandemic situation. Major international airline companies have been deferred their flight operation. All airlines depress the air travel in globally this uncertain situation. The transportation ways like road, rail and water also hampered in this COVID-19 emergency [6, 17]. The travel ban has imposed millions of dollars loss in aviation and tourism industries in the related countries. This also created shortage of medicines, agriculture products, food supply, and other commodities in affected countries [1]. As a result, the people related to tourism, aviation, transportation are suffering extreme difficulties.

According to OECD Assessment, the COVID-19 affected countries are facing high inflation and unemployment problems due to expenditure for treatment and rehabilitation of people [28]. Again, the affected countries will be loss of 2% of their annual GDP growth in every month during this pandemics condition. The tourism sector will face decrease of output from 50% to 70% [6]. The outbreak control situation increase costs in health sector, decreases productivity of employees and reduces economic activities at whole.

Tourism activities are hampering in this situation due to maintain social distancing of people [17]. Many Gulf countries like Saudi Arabia has invested huge amount of money to develop the country as a tourism hub within the vision 2030. Their investment and vision fulfillment will be hampering for this pandemic situation [22]. Moreover, investment in tourism related amenities like recreation centers, restaurants, coffee shop, museums, fitness clubs, shopping malls, swimming pools and cultural centers also affected in this condition [46]. The outputs and labor productivity in tourism sector are lower for greater risk in health disaster during this pandemic situation [43]. In the post-pandemic situation, subsidize tourism consumption and financial supports from other sector will be essential as recovery initiatives for tourism industry [42].

The COVID-19 pandemic situation has created great impacts on tourism sector and overall economy of a country. The future tourism development will be based on the evaluation from the different stakeholders-local communities, tour operators, accommodation owners, food businessman, tour guides and transportation providers' perceptions and aspects on tourism impacts [9, 10]. Moreover, several macro level impacts such as impact of climate change on tourism, and effect on GDP, taxation, economic welfare, and employment in tourism [13, 10] also considered in near future. Again, post-pandemic situation will require sustainable tourism development based on tourists' behavior, destination choice, and tourism planning and strategies in new consequences [37].

### **Environmental Impacts and Tourism:**

The COVID-19 situation creates some well-being positions in environment within the great negative issues in worldwide. The environmental matters like pollution, global warming, climate change effects, and change of ecosystem and biodiversity are showing positive landmarks in this

period due to less human pressure on environment [4, 7]. The pollution in natural tourism attractions such as forests, beaches, hill areas, water bodies also decrease in this pandemic situation.

Beaches are one of the significant natural assets for many countries to provide tourism and recreational activities and survival of livelihood of coastal communities [23, 49]. But, these beaches have caused pollution problems for non-responsible use of tourists and communities [29]. The beaches around the world have decreased tourists' arrival for maintaining social distancing. As a result, reduction of waste generation and beach cleanup activities can enhanced in this pandemic period [47]. Moreover, less waste generation also create positive impact on environmental issues like water, soil, forest and air [32].

Noise pollution is one of the main sources for environmental degradation and cause health problem for people and disturbs the natural coherence of ecosystem [48]. The decrease of transportation use in tourism attractions are contributing positively in reduction of noise [47]. Moreover, some other aspects are suitable for post-pandemic tourism research such as tourism events and environmental consequences [5], event sustainability [30], willingness to pay and carbon footprint analysis [2].

Basically, the pandemic situation has created positive impacts on environment due to maintaining social distance, lock down conditions, produce less pollution and limited use of natural resources. The future tourism development should consider various environmental aspects like pollution, ecosystem and biodiversity, use of natural resources, recreational activities, and waste management.

Table 1: The COVID-19 pandemic impacts and sustainable tourism development

Areas	Themes
Social	<ul style="list-style-type: none"> <li>• Crisis management and strategies</li> <li>• Emergency tourism package</li> <li>• Travel facilitation</li> <li>• Diversified tourism products and services</li> <li>• Tourism governance</li> <li>• Human capital development</li> <li>• Social distance and tourism</li> <li>• Knowledge management</li> <li>• Postponed tourism events</li> <li>• Stress among the population</li> </ul>
Economic	<ul style="list-style-type: none"> <li>• Employment and livelihood</li> <li>• Taxes and subsidies</li> <li>• Transportation</li> <li>• Consumer protection</li> <li>• Tourism investment</li> <li>• Stimulate demand</li> <li>• Tourism supply chain</li> <li>• Poverty and tourism</li> <li>• Sustainable profit</li> <li>• Tourism productivity</li> <li>• Loss of tourism demand</li> </ul>

	<ul style="list-style-type: none"> <li>• Slow revenue growth and poor cash flow</li> </ul>
Environment	<ul style="list-style-type: none"> <li>• Sustainable tourism</li> <li>• Sustainability and recovery</li> <li>• Embracing SDGs</li> <li>• Environmental pollution</li> <li>• Climate change impact</li> <li>• Energy efficiency</li> <li>• Carbon emission</li> </ul>

Sources: Adapted from [35, 18, 19]

Table 1 highlights the future scopes for sustainable tourism development related to the COVID-19 impacts with different themes in three areas- social, economic, and environment.

### Conclusion:

The COVID-19 lockdown around the world has imposed negative impact on the livelihood of people and world economy as well. At the same time, the pandemic situation brings further scopes for sustainable tourism development in near future from the consequences of social, economic, and environment in COVID-19 pandemic situation.

In the post COVID-19 pandemic situation, sustainable tourism development will require studies on mortality condition, pandemic, natural disaster, and economic crisis [31, 25]. Again, [31] suggested on several aspects such as management strategies for post-crisis, tourism disaster lifecycle, micro-level emergency management, hospitality, small and medium enterprises (SME), technology trends and knowledge management would be vital for sustainable tourism. Moreover, [15] pointed for special interest tourism, impact assessment and sustainability issues, and [44] highlighted for trend analysis for future tourism development.

### References:

1. Ali, I.; Alharbi, O.M.L. COVID-19: Disease, management, treatment, and social impact. *Sci. of the Tot. Env.* **2020**, 728,138861. <https://doi.org/10.1016/j.scitotenv.2020.138861>
2. Andersson, T.D.; Lundberg, E. Commensurability and sustainability: triple impact assessments of a tourism event. *Tour. Manage.* **2013**, 37, 99-109.
3. Backer, E.; Ritchie, B.W. VFR travel: A viable market for tourism crisis and disaster recovery? *Int. Jour. of Tour. Res.* **2017**, 19(4), 400–411.
4. Bremer, S.; Schneider, P.; Glavovic, B. Climate change and amplified representations of natural hazards in institutional cultures. *Ox. Res. Enc. Nat. Haz. Sci.* **2019**. <https://doi.org/10.1093/acrefore/9780199389407.013.354>
5. Case, R. *Events and the Environment*. Routledge: London, 2013.
6. Chakraborty, I.; Maity, P. COVID-19 outbreak: Migration, effects on society, global environment and prevention. *Sci. of the Tot. Env.* **2020**, 728, 138882.

7. Coutts, A.; Beringer, J.; Tapper, N. Changing urban climate and CO2 emissions: implications for the development of policies for sustainable cities. *Urb. Pol. Res.* **2010**, *28*, 27–47.
8. Cró, S.; Martins, A.M. Structural breaks in international tourism demand: Are they caused by crises or disasters? *Tour. Manage.* **2017**, *63*, 3–9.
9. Dwyer, L.; Forsyth, P.; Spurr, R. Effects of SARS crisis on the economic contribution of tourism to Australia. *Tour. Rev. Int.* **2006**, *10*, 47-55.
10. Dwyer, L.; Forsyth, P.; Spurr, R. Tourism economics and policy analysis: contributions and legacy of the Sustainable Tourism Cooperative Research Centre. *Jour. of Hos. and Tour. Manage.* **2016**, *26*, 91-99.
11. Faus, J. *This is how coronavirus could affect the travel and tourism industry.* 2020. <https://www.weforum.org/agenda/2020/03/world-travelcoronavirus-covid19-jobs-pandemic-tourism-aviation/>.
12. Fennell, D.A. Towards a model of travel fear. *Ann. of Tour. Res.* **2017**, *66*, 140–150.
13. Forsyth, P.; Dwyer, L.; Spurr, R. Is Australian tourism suffering Dutch disease? *Ann. of Tour. Res.* **2014**, *46*, 1-15.
14. Gao, J., Tian, Z., Yang, X. Breakthrough: Chloroquine phosphate has shown apparent efficacy in treatment of COVID-19 associated pneumonia in clinical studies. *Biosci. Tre.* **2020**. <https://doi.org/10.5582/bst.2020.01047>
15. Getz, D., Page, S.J. Progress and prospects for event tourism research. *Tour. Manage.* **2016**, *52*, 593-631.
16. Giovanardi, M.; Lucarelli, A.; Decosta, P. Co-performing tourism places: the “Pink Night” festival. *Ann. of Tour Res.* **2014**, *44*,102-115.
17. Goodell, J.W. COVID-19 and finance: Agendas for future research. *Fin. Res. Let.* **2020**. <https://doi.org/10.1016/j.frl.2020.101512>
18. Haleem, A.; Javaid, M.; Vaishya, R. Effects of COVID-19 pandemic in daily life. *Cur. Med. Res. and Prac.* **2020**. <https://doi.org/10.1016/j.cmrp.2020.03.011>
19. Haleem, A.; Javaid, M.; Vaishya, R.; Deshmukh, S.G. Areas of academic research with the impact of COVID-19. *Am. Jour. of Emer. Med.* **2020a**. <https://doi.org/10.1016/j.ajem.2020.04.022>
20. Jiang, Y.; Ritchie, B.W.; Benckendorff, P. Bibliometric visualisation: An application in tourism crisis and disaster management research. *Curr. Iss. in Tour.* **2017**, *22*(16), 1-33.
21. Kim, W.; Jun, H.; Walker, M.; Drane, D. Evaluating the perceived social impacts of hosting large-scale sport tourism events: scale development and validation. *Tour. Manage.* **2015**, *48*, 21-32.
22. KSA. 2016. Kingdom of Saudi Arabia vision 2030. 2016<http://vision2030.gov.sa/download/file/fid/417>.
23. Lucrezi, S.; Saayman, M.; Van der Merwe, P. An assessment tool for sandy beaches: a case study for integrating beach description, human dimension, and economic factors to identify priority management issues. *Oce. & Coas. Manage.* **2016**, *121*, 1–22.
24. Mair, J.; Ritchie, B.W.; Walters, G. Towards a research agenda for post-disaster and post-crisis recovery strategies for tourist destinations: A narrative review. *Curr. Iss. in Tour.* **2016**, *19*(1), 1–26.
25. Nannia, A.; Ulqinaku, A. Mortality threats and technology effects on tourism. *Ann. of Tour/ Res.* **2020**. <https://doi.org/10.1016/j.annals.2020.102942>



26. Nordvall, A.; Pettersson, R.; Svensson, B.; Brown, S. Designing events for social interaction. *Eve. Manage.* **2014**, 18(2), 141-151.
27. Novelli, M.; Burgess, L.G.; Jones, A.; Ritchie, B.W. No Ebola... still doomed"—The Ebola-induced tourism crisis. *Ann. of Tour. Pau. Res.* **2018**, 70,76–87
28. OECD, 2020. Coronavirus: the world economy at risk. OECD Interim Economic Assessment. [oecd.org/economic-outlook](http://oecd.org/economic-outlook)
29. Partelow, S.; von Wehrden, H.; Horn, O. Pollution exposure on marine protected areas: a global assessment. *Mar. Poll. Bull.* **2015**, 100, 352–358.
30. Pernecky, T.; Luck, M. *Events, society and Sustainability: Critical and contemporary approaches*. Routledge: Oxon, 2012.
31. Ritchie, B.W.; Jiang, Y. A review of research on tourism risk, crisis and disaster management: Launching the annals of tourism research curated collection on tourism risk, crisis and disaster management. *Ann. of Tour. Res.* **2019**, 79, 102812.
32. Schanes, K.; Dobernig, K.; Gözet, B. Food waste matters-a systematic review of household food waste practices and their policy implications. *Jour. of Cle. Pro.* **2018**, 182, 978–991.
33. Tussyadiah, I. P.; Wang, D.; Jung, T. H.; tom Dieck, M.C. Virtual reality, presence, and attitude change: Empirical evidence from tourism. *Tour. Manage.* **2018**, 66,140–154.
34. Ulqinaku, A.; Sarial-Abi, G. Tourism implications of online response to terrorism. *Ann. of Tour. Res.* **2020**. 102914.
35. UNWTO. 2020. <https://www.unwto.org/impact-assessment-of-the-covid-19-outbreak-on-international-tourism> (accessed on 18 May 2020).
36. Walker, P.; Whittaker, C.; Ghani, A. *Report 12: The Global Impact of COVID-19 and Strategies for Mitigation and Suppression*. Imperial College London MRC Centre for Global Infectious Disease Analysis: London, 2020.
37. Wang, J.; Ritchie, B.W. Understanding accommodation managers' crisis planning intention: An application of the theory of planned behaviour. *Tour. Manage.* **2012**, 33(5), 1057–1067.
38. Wilder-Smith, A.; Chiew, C.J.; Lee, V.J. Can we contain the COVID-19 outbreak with the same measures as for SARS? *Lan. Inf. Dis.* **2020**. [https://doi.org/10.1016/S1473-3099\(20\)30129-8](https://doi.org/10.1016/S1473-3099(20)30129-8)
39. WHO. *Managing epidemics: Key facts about major deadly diseases*. World Health Organization. 2018. <https://www.who.int/emergencies/diseases/managing-epidemics-interactive.pdf>. (accessed on 22 May 2020).
40. WTTC. 2020. <https://www.weforum.org/agenda/2020/03/world-travel-coronavirus-covid19-jobs-pandemic-tourism-aviation> (accessed on 25 May 2020).
41. Xing, X.; Chalip, L.; Green, B.C. Marketing a social experience: how celebration of subculture leads to social spending during a sport event. *Spor. Mar. Qua.* **2014**, 23(3).
42. Yan, Q.; Zhang, H.Q. Evaluation of the economic effectiveness of public tourism coupons in China in 2009 – A corrected DEA approach. *Asia Pac. Jour. of Tour. Res.* **2012**, 17(5), 534–550.
43. Yang, Y.; Zhangb, H.; Chen, X. Coronavirus pandemic and tourism: Dynamic stochastic general equilibrium modeling of infectious disease outbreak. *Ann. of Tour. Res.* **2020**. <https://doi.org/10.1016/j.annals.2020.102913>
44. Yeoman, I.; Robertson, M.; McMahan-Beattie, U.; Smith, K.; Backer, E. (Eds.). *The future of events and festivals*. Routledge: Abingdon, 2014.

45. Yezli, S.; Yassin, Y.; Awam, A.; Attar, A.; Al-Jahdali, E.; Alotaibi, B. Umrah. An opportunity for mass gatherings health research. *Sau. Med. Jour.* **2017**, 38(8), 868–871.
46. Yezli, S.; Khan, A. COVID-19 social distancing in the Kingdom of Saudi Arabia: Bold measures in the face of political, economic, social and religious challenges. *Tra. Med. and Inf. Dis.* **2020**. <https://doi.org/10.1016/j.tmaid.2020.101692>
47. Zambrano-Monserrate, M.A.; Ruano, M.A.; Sanchez-Alcalde, L. Indirect effects of COVID-19 on the environment. *Sci. of the Tot. Env.* **2020**, 728, 138813.
48. Zambrano-Monserrate, M.A.; Ruano, M.A. Does environmental noise affect housing rental prices in developing countries? Evidence from Ecuador. *La. Use Pol.* **2019**, 87, 104059
49. Zambrano-Monserrate, M.A.; Silva-Zambrano, C.A.; Ruano, M.A. The economic value of natural protected areas in Ecuador: a case of Villamil Beach National Recreation Area. *Oce. & Coas. Manage.* **2018**, 157, 193–202.
50. Zhang, D.; Hu, M.; Ji, Q. Financial markets under the global pandemic of COVID-19. *Fin. Res. Let.* **2020**. <https://doi.org/10.1016/j.frl.2020.101528>
51. Viglia, G; Dolnicar S. A review of experiments in tourism and hospitality. *Ann. of Tour. Res.* **2020**, 80,102858. <https://doi.org/10.1016/j.annals.2020.102858>