

Gold Coast Surfers Paradise Tourism Impact Assessment and Mitigation for Sustainable Development

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Abstract

This report examines the tourism impacts to Surfers Paradise, with a focus on sustainable development and strategies to balance economic, social, and environmental outcomes. The concept of sustainable development is explored through different frameworks such as triple bottom line, carrying capacity, and nature-based tourism, emphasizing both benefits and challenges to sustainable development. Potential social, environmental and economic tourism impacts on Surfers Paradise are identified following by recommendations including strategies to manage overcrowding, promote community engagement, enhance environmental planning, and diversify economy to reduce vulnerability. Overall, findings highlight that although Surfers Paradise has made significant progress in sustainability, further integrated management strategies are required to ensure long-term resilience and sustainable development.

Keywords

sustainable development, social impact assessment, environmental impact assessment, nature-based tourism

1. Introduction

This impact report will analysis Surfers Paradise in terms of sustainable development, focusing on the business and searching methods to maximize positive impacts and mitigate negative impacts.

1.1 Concept of Sustainable Tourism (Key Terms)

1.1.1 Sustainable Tourism

With the increasing number of tourists during the post covid period, Gold Coast served tens of thousands of visitors every year and Surfers Paradise is one of the hottest favorite destinations for tourists (Gold Coast City Council, 2023). It is time for the world to focus on sustainable tourism for long term development. The UN 2030 Agenda sets a series of sustainable development goals (SDGs) for sustainable development (Figure 1). By the year of 2030, the aim highly relating to sustainable tourism are ‘no poverty; decent work and economic growth; industry, innovation and infrastructure; climate action’. The agenda proposed by UN influences the tourism policy. A heterogeneous constructionism approach is used to examine the managerial ecology of SDGs and tourism (Hall, 2019).

Figure 1: UN sustainable development goals (Source: United Nations Foundations, 2015)



1.1.2 Nature-based Tourism

The ecotourism is a concept including in the nature-based tourism. The ecotourism refers to the ecologically sustainable tourism in natural areas and it fosters the understanding of culture and environment. It also promotes tourists' appreciations for and advocates tourists conserve nature (Ali et al., 2022). The suffers paradise is famous because of its original ecology beach and clear ocean water. In Queensland, the ecotourism will become the most important market in tourism industry as the increasing awareness of tourists on ecologically. To mitigate the side effects by large number of tourists, Queensland Government released several Act and Plan to restrict the behavior in natural and protected areas such as *Nature Conservation Act 1992* and *Queensland Ecotourism Plan 2016-2020* (Queensland Government Business, 2022).

1.1.3 Triple Bottom Line

The triple bottom line (TBL) in tourism industry refers to measuring the corporate performance beyond economic dimension, also including socio-cultural and environmental dimensions (Tyrrell et al., 2013). The core of the triple bottom line model is sustainable tourism (Figure 2). The core of social-cultural dimension is people, which is aiming to deal with community, education, social resources, health, well-being and quality of life. Our planet is the core of environmental dimension, which is relating to natural resources, water and air quality, energy conservation and land use. The profit is the core for economics dimension dealing with the bottom line and cashflow. In this impact report, author will consider both positive and negative impacts in surfers paradise according to TBL.

Figure 2: Triple Bottom Line in THE (Source: Gate Research, 2021)

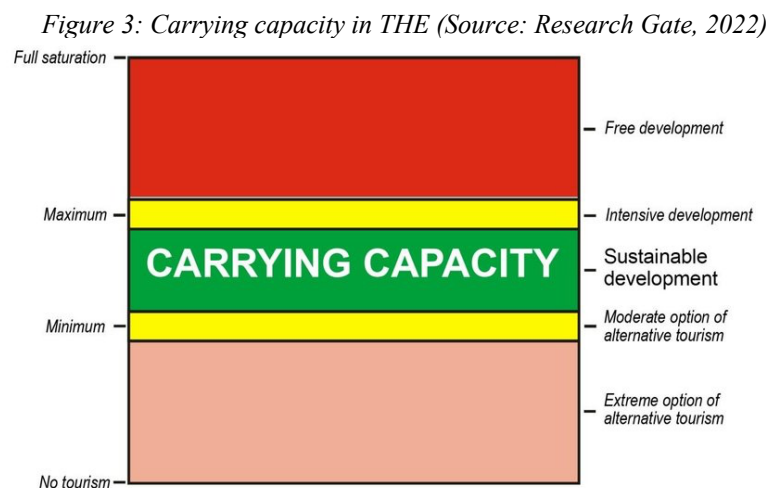


1.1.4 TBL Impacts

The people, planet and profit are the key measures to analysis the TBL impacts. The definition of impacts beyond negative influence, also conder about the positive impacts and maximize the benefits (Jarvis et al., 2016).

1.1.5 Carrying Capacity

The carrying capacity is defined by World Tourism Organization refers to ‘the maximum number of tourists visiting a tourist destination at the same time, without causing destruction of physical, economic, environmental, social-cultural aspects and unacceptable decrease in visitors satisfaction’. Figure 3 illustrated the carrying capacity in tourism industry. The best carrying capacity is given as green color in the middle of the graph which refers to the carrying capacity for tourists’ destination is suitable for sustainable development. The two yellow zone are the maximum and minimum capacity. The maximum carrying capacity adopt intensive development mode. The minimum carrying capacity seek moderate option of alternative tourism. The two extreme conditions are full saturation and no tourism events. If the tourism destination is free to develop, the carrying capacity will be full saturation. If the tourist destination meets the extreme option of alternative tourism, the carrying capacity of the tourist destination will undergo the reduction in sustainable development level in tourism industry.



1.1.6 Beneficial of Sustainable Tourism

The sustainable tourism focusing on managing the tourism which ensures the long-term social-cultural, economic and environmental benefits. The sustainable tourism emphasizes minimizing the negative impacts in tourism, preserving cultural and natural heritages and supporting the local community development (Yang et al., 2023). The Go Overseas website, one of the world’s leading travel websites proposed seven benefits of sustainable tourism. Firstly, it has a lower ecological impact. Secondly, it allows wildlife staying in the wild. Thirdly, the responsible tourism keeps the environment clean. In addition, it supports and empowers local communities. It also preserves cultural heritage. The sixth benefit is tourists will have a more meaningful experience when visiting the tourist destination. Lastly, the tourists will become a more conscious traveler on sustainable tourism.

1.2 Overview of Surfers Paradise

Surfers Paradise, located in City of Gold Coast, is a famous suburb because of natural landscapes and world-wide activities. To the demography aspect of Surfers Paradise, it owns 26,412 residents (ABS Census Data, 2021), with a variety of high-rise social apartment and shopping & entertainment precinct. The central of Surface Paradise is Cavill Mall which is located near Surface Paradise Beach. The Cavill Street connects Cavill Mall and Surface Paradise Beach, it is one of the busiest shopping strips in QLD and the central of night life (de Andrade et al., 2016). Surfers Paradise beach is the landmark for Gold Coast and the total distance for Surfers Paradise beach is 1600 meters from north to south connecting with Main Beach (north side) and Gold Coast Beach (south side). In addition, Surfers Paradise beach is part of Australian East Coast Line. When

sitting on the Surfers Paradise beach, tourists are able to have a panoramic view of the urban skyline of City of Gold Coast.

Surfers Paradise is famous not only because tourist attractions attract mass tourists, but also several activities and events hold there. The firework competition is one of the events in Surfers Paradise in the first Saturday in June. Freighters carry the firework to the ocean and display the firework from 7PM to 9PM. The Pacific Air show in the middle of August every year is another mega event in Surfers Paradise beach. There are more than 30 airplanes in different models flying through the front of Surfers Paradise beach and bring aerobatic flight for tourists.

From author's observation, Surfers Paradise is suitable for all age groups of people as the abundant activities and attractions is suitable for all tourists. Surfers Paradise is widely recognized as one of the Australian's premier tourist destinations and it is estimated that over 4 million tourists come here annually (domestic & international). When author walked along the Cavill Avenue, it is easy to see people with different age groups visited Surfers Paradise. In addition, some performers were performing along streets including acrobatics, dancing, conjuring, hip-hop, etc. Dramatically, although all age groups and people with different nationality can be seen in Surfers Paradise, the final destination of them are various. To be more specific, Surfers Paradise Beach is the main destination for all groups of people, restaurants along coastline are the main destination for people in their middle-age or elder people, and Cavill Mall is the main destination for young groups. A critical reason of the success in tourism is public transport. It is convenience for people arrive to Surfers Paradise by G Link Tram and buses. Tram connects with more than 40 bus routes and Gold Coast Train which offers directly to Brisbane City and Brisbane Airport. Unlikely to some tourist destinations, high-frequency public transport provides higher accessibility for tourists arrive at Surfers Paradise without car-dependency. During the event period, the interval of tram will reduce to 4.5 minutes to enhance network efficiency. The well-planned public transport network in Gold Coast increase convenience for tourists from different cities. Once they arrive in the airport terminal, it is easy for them to catch up the public transport to Surface Paradise.

2. Current and Potential Impacts to Surfers Paradise

Author will talk about the current and potential impacts in Surfers Paradise in both positive and negative aspects in terms of TBL in this part. Social, environmental, and economic impacts will be proposed by author after on-site field study.

2.1 Social Impacts

2.1.1 Positive Social Impacts

The coastal management & strategies proposed by Council of City of Gold Coast is used in Surfers Paradise and considered several issues which may appear in coast area. Gold Coast City Council took a holistic approach to the coastal management with a wide range of consideration including community benefits and suffers amenity.

The biggest positive social impact is on the society. The prosperous tourism brought several events and festivals in Surfers Paradise. The abundant events enhance the social cohesion as a variety of these events blends diverse cultures together. The festivals and events also provide opportunities for local community interact with tourists. During the events and festivals, different activity sponsor will educate tourists the importance of sustainable tourism and respect to all cultures. Another method to propagandize the sustainable tourism is using the poster or canvas to cover the construction sites along the road (Figure 4).

The development of tourism has brought a variety benefit to the local community. The local mobility is enhanced in terms of public transport (PT) and road accessibility. As mentioned in the previous part, the connections between the main public transport routes enhance the convenience for local residents. The main routes composites main PT network directly connecting Surfers Paradise to other places in Gold Coast. In addition to the PT system and road infrastructure, the recreation facilities will be upgraded to attract more tourists. The recreational fertilities will become more diversification and suitable for all age groups.

Figure 4: Canva along road advocating people 'care and save our ocean'



Source: Author (2024).

2.1.2 Negative Social Impacts

Although there are several positive social impacts in Surfers Paradise based on coastal management and strategies, side effects in social aspect cannot be neglected.

Due to the high popularity of Surfers Paradise, the number of tourists keep increasing. The large number of tourists caused the heavy congestion on road, especially during the post-event or festival period. The congestion greatly increases the travel time for local residents. Majority tourists will choose as their mode choice after event period, which will cause overcrowding in the tram station.

Noise is the product of events and festivals. During each festival period, the cheer sound from participants and tourists always influences the peaceful life for people living in Surfers Paradise. The adjoining apartment along the coastline (The Esplanade Road) are supposed to undergo the highest level of noise.

Erosion along the coastline is a serious problem in the northern part in Surfers Paradise Beach (Figure 5). the urbanization of Surfers Paradise has destroyed tertiary and secondary vegetation. The vegetation acts as a central role in protecting the dune system when the storms and weather events occur. The reason that author mentions erosion in this impact assessment is the construction of the sea-view apartment initially attract tourists for investment. The sea-view apartments are always the way for property developers to gain benefits from buyers. Due to the location of Surfers Paradise is along the beautiful coastline, property developers built higher storeys apartments to attract more people living here to earn more profits. The construction of high-rise accommodation and restaurants have been closely together and increasing closer to the beach front. The construction of high-rise apartments has occurred on what was previously hind dunes that made up a part of each beach's ecosystem.

The social side effects caused by erosion including the threat to the social and recreational lifestyle of locals and tourists. The houses of local residents are threatened by the ocean when severe weather events and damaging waves impact the coastline. In addition, considering about the vulnerable demographic's tourists, the erosion creates dangerous conditions for people who wants to access beach. The sand bluffs make access to the beach unsafe and make it difficult for them to escape dangerous ocean and wave conditions.

The processes of erosion also wash away the pristine, white sands on the beach, instead leaving to tourists with unappealing aesthetic and full of debris. This erosion process stops both local residents and tourists from using the beach for recreational and leisure activities on the beach.

Figure 5: Erosion along the coastline in northern part of Surfers Paradise

Source: Beach Management Strategies (2024), photo taken in 2009 after severe storms.

2.2 Environmental Impacts

2.2.1 Positive Environmental Impacts

The Hilton Hotel owns hotel in Surfers Paradise for tourists to live. The Hilton Surfers Paradise (HSP) has proposed several measurements to promote the environmentally sustainable tourism. The HSP has made several progresses since 2018. ‘Travel with purpose 2030 goals’ is the guideline for sustainable travel and sustainability is considered as the priority of HSP. The target for the 2030 goals is to doubling social impact and cutting the environment footprint in half. Some specific measurements include the banning of using single-use plastic, diverting as much recycle as they can from landfill, removing all food scraps from general waste collection, recycling bars of soap that are only used once or twice, implementing room sensors to reduce energy when guests are out of the room and using only free-range eggs with sustainably sourced ingredients (HSP website, 2024). The HSP is dedicating to drive responsible travel and tourism across hospitality industry by using these environmentally sustainable strategies.

The Novotel Surfers paradise (NSF) is another hotel which commits to minimizing the impact on the environment. The NSF is certificated through Ecotourism Australia’s world leading sustainable certification program which represents the hotel provides a high-quality and recognizable product. The ecotourism Australia Certification programs are recognized by the Global Tourism Council (NSF website, 2024), which represents the certificated standard meets the global environmentally sustainable requirements.

The conservation of local environment has protected the local environment and provided liveable place for species. The effective environment management strategies conserved the habitat for sea gull and reduced the impact to natural environment. Efficient environment governance strategies ensure high level of wildlife conservation.

2.2.2 Negative Environmental Impacts

During the event period, especially the PA show period, there are a variety of waste produced by tourists which make the Surfers Paradise in a mass. The insufficient capacity of rubbish bin led to some tourists carelessly throw garbage to the ground. The corrosion of rubbish will influence the local amenity and destroy the beautiful coastline scenery. The smelling of corrosion of rubbish will bring negative impression for tourists visiting Surfers Paradise.

More hotels or lodges are needed in response to the large number of tourists. The surface of these tall buildings in Surfers Paradise are mostly glass or concrete painted with white color. The surface of these hotels is not environmentally sustainable and will potentially increase the urban heat island. In addition, the glass reflection of the sunlight will cause the light pollution. The light pollution will blur the vision of birds and

increase the probability for birds to dash against the glass. The reflection of sky through glass surface also causes the dash of birds because some birds may think the glass surface in mistake for sky. For the color of surface on these buildings, white is the dominant color to cooperate with the sea view to produce a better skyline for Gold Coast. However, the white color always reflects heat which may increase the temperature in surrounding areas.

Insufficient green roof tops and greenery cover is a problem in many hotels in Surfers Paradise. Urban heat island effect is recognized as one of the main factors that influence the urban temperature. The green roof top not only mitigate the urban temperature, but also shape the urban landscape through roof top place-making.

2.3 Economic Impacts

2.3.1 Positive Economic Impacts

The prosperous tourism industry in Surfers Paradise increase the demand of jobs such as security preserve order during the event or festival period, tour guide introduce places to tourists, cleaning staff tidying up after the events or festivals. More local jobs will be provided to increase the employment rate in Surfers Paradise. More residents are able to work near their accommodation. Table 1 illustrated the industry of employment in Surfers Paradise. The top responses jobs are all relating to tourism and the percentage of these tourism-related jobs are higher than QLD and Australia levels.

Table 1: Top responses of industry of employment (Source: ABS Census Data, 2021)

Industry of employment, top responses <i>Employed people aged 15 years and over</i>	Surfers Paradise	%	Queensland	%	Australia	%
Cafes and Restaurants	1,451	5.4	55,180	2.3	268,005	2.2
Hospitals (except Psychiatric Hospitals)	1,013	3.8	122,121	5	545,158	4.5
Accommodation	984	3.7	28,759	1.2	107,476	0.9
Real Estate Services	828	3.1	26,884	1.1	119,283	1
Building and Other Industrial Cleaning Services	647	2.4	30,532	1.2	145,595	1.2

In addition, tourism industry will bring local economic growth and promote local business. In surfers Paradise local stores mainly distributed along the tramway due to large passenger flow on tram. The income from tourism can be used to improve facilities quality to create for a better place for tourists.

2.3.2 Negative Economic Impacts

The major industry in Surfers Paradise is tourism industry (Lawton, 2005). More than half income was gained through tourism industry (Dedekorkut-Howes & Bosman, 2015). The overdependency on the tourism industry will lead to substantial change when the number of tourism decrease, especially during the pandemic period, the Gold Coast State's economy 2022 pointed that the decrease in tourism has caused sharp economic downturn during pandemic period and Surfers Paradise is the mostly severe town influenced by tourism. The overdependency on tourism will mitigate the urban resiliency responding to economic risks.

More local shops will bid up price to provide better services to tourists (Panasiuk, 2023). The inflated price will increase the daily expenditure for local residents. The price will become unaffordable for them. In addition, tourists will have negative impression of a place due to awful consumer experience. For instance, the price for the same product in tourist destination is much higher than other places.

3. Recommendations

3.1 Managing Social Impacts

Gold Coast government should take the responsivity in mitigating the social impacts in Surfers Paradise. One strategy to minimize the overcrowding problem is providing more discount in restaurants and souvenir store during the off-peak season and encouraging tourists travelling avoid the peak. This measure will reduce the overcrowding and noise problem in Surfers Paradise. In addition, increasing parking fees can effectively mitigate the number of tourists driving to Surfers Paradise during events and festival period. This strategy will relieve the stress caused by road congestion and insufficient parking space. For the potential social impacts caused by erosion along coastline, the professional management plan is on local houses near coastline needed

to enact by government department to avoid destruction on houses. Architect, meteorologist and environmentalist should be invited to engage in the decision-making process with local residents to reach better outcomes. In the future, Regular monitoring on the local species is also important to maintain the local biodiversity. The conservation strategies should be amended based on the monitoring data frequently to ensure the species are effectively conserved.

3.2 Managing Environmental Impacts

For the negative environmental impacts, more rubbish bin should place near the street to meet the large number of tourists. In addition, tourists should be required to classify the rubbish when throwing for sustainable development. Furthermore, Planning institute should take response to increase the amount green roof tops on the buildings. The local planning scheme should be revised to regulate the percentage of area that covered by greenery. The green roof top can effectively absorb heat and reduce the average temperature in city. To reduce the light pollution caused by glasses, the glass with low light pollution such as coated glass should be introduced to use on the architectures to mitigate reflectivity. This strategy is bird-friendly as the coated glass has poor reflectivity and darker color. Moreover, hotels can advocate more tourists participate in sustainable tourism to promote sustainable tourism. Some incentives can promote more tourists engaging such as discount of room price and credits exchange on objects. The extent of sustainability of tourists can be measured as the usage of biodegradable and recyclable objects. Lastly, similar to the social impact, the conservation action plan for specific local species is essential to balance the local ecological environment.

3.3 Managing Economic Impacts

The last impact included in the TBL is the economic impacts. To the inflated price phenomenon in Surfers Paradise, the market Supervision and Administration should take the responsibility to control the price and ensure the balance of stuffs in price compared with other non-tourist destination places. In addition, government should consider about the industrial transformation to reduce the over-dependency on tourism for local sustainable development. To maximize positive economic impacts, local administrative agency will strength supervision on various types of jobs to ensure the good market order and eliminate vicious market competition.

4. Conclusion

Above all, this impact report identified the observable social, environment and economic impact of Surfers Paradise, following by the solution to reduce negative impacts and maximize positive impacts. Surfers Paradise has made big progress in sustainable tourism. However, there are still areas where they can improve on. Companies especially hotels are highly recommended to get the certification through Ecotourism sustainable certification organizations, which can effectively enhance the reputation. Sustainability is the key for long-term development in tourist destinations, even small changes can bring positive impacts on TBL, local business and tourism.

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