



An Assessment of Coastal Tourism Amenities for the South Coast region, KwaZulu-Natal, South Africa

Michael R. Brett
Department of Social Sciences
University of Zululand, South Africa
E-mail: BrettM@unizulu.ac.za

Abstract

The South Coast of KwaZulu-Natal province contains the greatest concentration of coastal tourism amenities in South Africa. Previously, the coastal resort towns along the 170-kilometre-long coastline were administered by 29 local authorities, but are now administered by four municipalities. Three of these coastal municipalities fall under the Ugu District Municipality. This study examined 58 beaches along the South Coast and recorded the presence of 23 environmental factors and amenities for each beach. The region was divided into six sections of equal length and the beach amenities were mapped and recorded on tables. The 23 tourist amenities were further grouped into eight categories, and each category was evaluated and the scores plotted. Of the 58 beaches, 24% achieved a score exceeding 20 points and 24% obtained a score of 10 points or less. The findings indicate that for the South Coast distance from the City of Durban is not a limiting factor, as 10 of the top 14 scoring beaches were in the southern half of the region, and there is no direct relationship between high scoring beaches and distance from Durban. While the seven Blue Flag beaches achieved an average score of 21.4, compared to an average of 14.93 for all 58 beaches, they were not the only beaches to achieve a high score. The research suggests that there is still space to extend the tourist amenities along the South Coast, and an extension of the Blue Flag award would be one strategy for accommodating increasing numbers of tourists.

Keywords: coastal tourism, Blue Flag award, tourism management, tourist increases, South Africa.

Introduction – The Importance of Coastal Tourism

Many researchers have highlighted the importance of coastal tourism and attempted to quantify this segment of the tourism industry (Smith, 1992, 27; Klein et al, 2004, 1149; Silva et al, 2007, 135; Williams, 2010, 2; Williams and Barugh, 2014, 427; Todd and Bowa, 2016, 710). Throughout the world, sandy ocean beaches are a major tourist attraction and an important source of revenue, and coastal recreational activities are overwhelmingly concentrated on sandy beaches (Schlacher et al, 2007; Defeo et al, 2009; Klein and Osleeb, 2010). Apart from an increase in pressure on the coastal environment resulting from a worldwide growth in coastal tourism, approximately 44% of the world's population lives within 150 kilometres of the coastal zone (Willemse and Goble, 2018, 282). Given population concentrations and increasing tourist pressures, "coastal authorities are faced with managing a highly complex environment and ensuring that the public can continue to access the coast and benefit from its resources in a sustainable manner" (Willemse and Goble, 2018, 282).

In a recent listing of the top 20 tourist countries in the world, where tourism contributes the greatest proportion of GDP, for only two countries, Macau and Cambodia, is the tourism industry not dominated by coastal tourism (Smith, 2018). Of the ten leading African countries in 2017, which earned the highest income from tourism receipts, only Uganda does not have a coastal tourism component (World Tourism Organization, 2018, 11, 18)(Figure 2).

In calculating the economic benefits accrued from tourism, the United Nations' Statistics Division computes only the direct contribution made by the tourism industry to the economy of each country. However, the World Travel and Tourism Council (WTTC) argues that the economic contribution of tourism permeates further into the economy, and includes indirect and induced economic impacts. Direct economic impact is spending by domestic and foreign



tourists on accommodation, transport, entertainment and attractions. Indirect impact includes capital investment, such as the construction of new accommodation or the purchase of aircraft, as well as government services which support the tourism industry, and the purchase of goods and services required by the tourism industry to deliver the product. The induced economic contribution is a measure of the spending on goods and services by the people directly or indirectly employed by the tourism industry (World Travel and Tourism Council, 2018f, 2).

How important is coastal tourism as a sector in the global tourism industry? For countries where coastal tourism dominates the tourism industry (Figure 1), the percentage of GDP generated by tourism revenue is often considerably higher than for the global average of 10.4%, including direct, indirect and induced calculations (World Travel and Tourism Council, 2018f, 3). From the selection of island nations analysed (Figure 1), total tourism contribution, as a percentage of GDP, ranges from 9.7% for Comoros to 98.5% for the British Virgin Islands (World Travel and Tourism Council, 2018f). For many of the island nations plotted, total tourism contribution as a percentage of GDP exceeds 40%.

In the Indian Ocean island nations many nations generate a large portion of their GDP from tourism. For the Maldives, direct contribution to GDP generated by tourism is the highest in the world, while Seychelles is ranked at 5th place (World Travel and Tourism Council, 2018d, 8). In Mauritius, the direct contribution by tourism is 7.4% of GDP and 26.4% for Seychelles, compared to 2.9% for South Africa. In the Seychelles, tourism accounts for 66% of all employment, and for 22.6% of employment in Mauritius (World Travel and Tourism Council, 2018b,11; 2018d, 3; 2018e, 11). In the Indian Ocean island nations, total tourism contribution as a percentage of GDP ranges from a low of 9.7% for Comoros, to 23.8% for Mauritius, 65.3% for Seychelles and 76.6% for Maldives. Of the WTTC's 12 geographic regions, the Caribbean is the leading region in the world for tourism earnings as a percentage of GDP. Domestic and foreign tourists spent \$31.8 billion in the region in 2017, which exceeds the GDP of 37 individual African countries (Robertson, 2017; World Travel and Tourism Council, 2018a, 11).

The predominance of coastal tourism, and the apparent success of this segment of the tourism industry in regions such as the Caribbean and the Indian Ocean raises a number of questions. Is the contribution to the economy from coastal tourism as high as it initially appears to be? Are high population densities, poorly diversified economies and an absence of viable economic alternatives on many islands, exaggerating the economic contribution made by tourism? To determine the relative economic contribution made by coastal tourism, the per capita income generated by tourism in leading African tourist destinations and in island nations was calculated from recent WTTC reports (Figure 2).

From the graph is it evident that, in some instances, income generated by island nations greatly exceeds the global average. In 2017 direct income from tourism totalled \$2,570 billion, or an average of \$341 for every person on earth (World Travel and Tourism Council, 2018f, 3, 11). For the lucrative North American geographic region, where the industry was expected to grow by 3.4% in 2018, direct tourism earnings averaged \$623 per capita for the inhabitants of the United States of America (USA), Canada and Mexico (World Travel and Tourism Council, 2018c, 11). From Figure 2 it is clear that many Indian Ocean island nations considerably exceed both the global and North American average per capita tourism revenue. None of the top ten, mainland, African tourist destinations (Figure 2) approach the global average: South Africa produces slightly more than half of the figure, Egypt less than one-third and Morocco just more than two-thirds (World Tourism Organization, 2018, 11, 18). However, with the exception of Comoros, the Indian Ocean island nations significantly surpass both averages, even if high population densities on certain islands are taken into account. Seychelles' direct income from tourism in 2017 was \$4,096 per resident, \$3,360 for Maldives, \$1,046 for Reunion and \$773 for Mauritius. Per capita revenue from tourism for the population of the Seychelles is therefore more than six-fold higher than for the lucrative North American market (World Travel and Tourism Council, 2018d, 11; 2018b, 3).

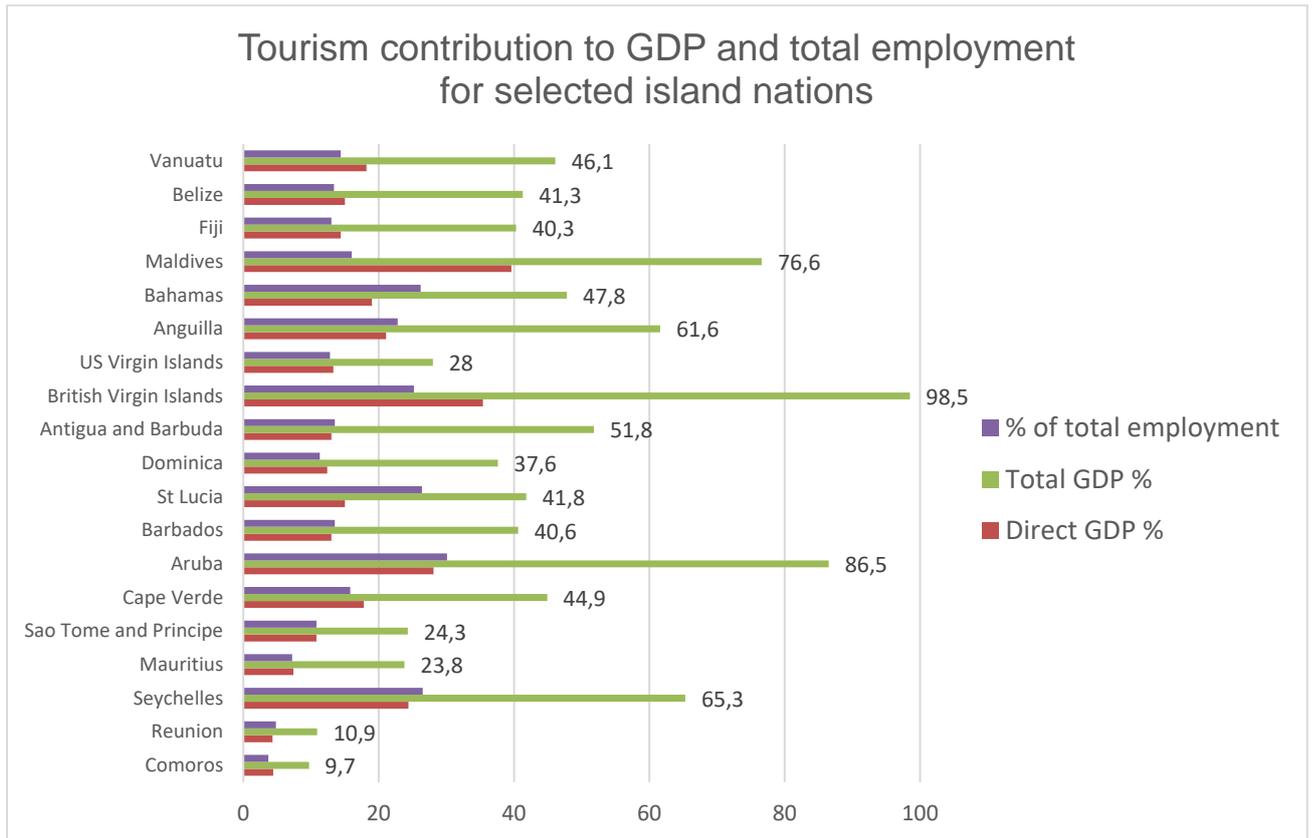


Figure 1: Direct and induced contribution of tourism to GDP in selected island nations, and percentage of employment supported by the tourism industry. (Information obtained from World Travel and Tourism Council (WTTC) reports, 2018)



Figure 2: Per capita direct tourism revenue for the leading African tourist destinations and African- and selected Indian Ocean- island nations (Calculated from World Travel and Tourism Council reports)



Location of the study area

The term “coastal tourism amenities” in this paper is considered as the facilities and recreation activities closely related to the beach, which is defined as, “the zone of loose or unconsolidated material extending from the mean low water line to a point landward where either the topography abruptly changes or permanent vegetation first appears” (Haller et al, 2011, 71).

The South Coast region of KwaZulu-Natal (Figure 3) contains the greatest concentration of coastal tourism resorts and amenities in South Africa. This coastline stretches, from north to south, for 170 kilometres from the City of Durban to the town of Port Edward, on the border of the Eastern Cape province (Figure 3), and accounts for 6% of the South African coastline (Rogerson et al, 2018, 9). The South Coast region has been described as, “a ribbon of seaside suburbs...In the winter months it’s much warmer and sunnier along this stretch than on any of the beaches between here and Cape Town” (Pinchuck et al, 2010, 426).

The concentration of coastal tourism resort towns can be attributed to a number of historic and geographic influences: a sub-tropical climate, its relative closeness to the economic and industrial heartland of Gauteng, and historic linkages which resulted from its early settlement by British settlers in the 19th century, and the later establishment of a lucrative sugar industry in the early decades of the 20th century (Buchanan & Hurwitz, 1951, 235; Christopher, 1971, 565, 575; Kellett & Williams, 2008, 456; Mucina and Rutherford, 2006, 572; Willemse and Goble, 2018, 283).

In popular tourism literature, the South Coast is often described in rather idyllic terms, such as, “a year-round combination of sunshine, sand, sea and surf has created an irresistible drawcard for visitors coming from the cooler inland climates or the Northern Hemisphere” (Brett et al, 2011, 288). However, the linear coastal development along much of the South Coast, which has occurred since the latter half of the 20th century, does not always receive such a positive commendation. One of the most popular coastal towns has been described as, “a brash holiday town, Margate with its high-rise apartments, fast-food outlets and ice-cream parlours, offers little in the way of undiscovered coves or hidden beaches” (Pinchuck et al, 2010, 428). And the administrative town of Port Shepstone, in what appears to be a backhanded compliment, is described as, “the nicest thing about Port Shepstone is that, unlike many other towns and resorts along the coast, it has a ‘lived in’ look about it” (Oakes, 1991, 211). Ramsgate is described as, “the town now blurs into the beach metropolis of Margate” (Reynierse, 1988, 209), and the ribbon of urban development along much of the South Coast is referred to as, “the overall impression as you drive down the coast is of a long line of caravan parks and holiday homes” (Kellett & Williams, 2008, 457).

In a recent study, Willemse and Goble (2018, 282-292) highlighted a number of issues relating to the management of the KwaZulu-Natal coastal zone. The Integrated Coastal Management Act (Act 24 of 2008, Act 32 of 2014) stipulates that the coast is a national asset, and that there must be equitable access to the coast and its resources. The Act requires coastal municipalities to set aside pieces of land which allow the public access to the coast. Municipalities also are responsible for providing signage, protecting the rights of the public and providing facilities which encourage coastal access. However, the province of KwaZulu-Natal has yet to develop a coastal management plan (CMP) and is lagging behind other coastal provinces, and many municipalities are struggling with the responsibilities placed on them by the Act.

The authors state that nearly 60% of KwaZulu-Natal’s population resides within 100 kilometres of the coast, and the coast is the leading domestic tourism destination in the province (Willemse and Goble, 2018, 283). In 2016 the City of Durban, and the three coastal municipalities of the South Coast, had an estimated population of 4.3 million occupying only



6.6% of the province's surface (Figure 3), which indicates that population densities in the region are high for South Africa, even before the impact of tourism is calculated (Municipalities of South Africa).

Prior to 1994, the 58 beaches of the South Coast (Figure 3), which are the focus of this study, fell under the control of 29 separate local authorities. These local authorities have been amalgamated into one metropolitan area and three municipalities, which has simplified tourism planning and marketing in the region. As is the case in any tourist region in the world, a geographic tourist destination which exists in the collective public consciousness may extend across national, provincial or several municipal boundaries. Poorly co-ordinated planning, or differing planning objectives and regulations, may result in differing approaches and outcomes within the destination landscape, which may not be easily recognised by tourists as municipal and regional boundaries tend to be invisible.

Fortuitously for the South Coast region, three of these four municipalities fall under the Ugu District Municipality. Apart from the initial 50 kilometres of the coastline from Durban to Umkomaas, which is administered by the eThekweni Metro, from north to south the municipalities of Umdoni, Umzumbe and Ray Nkonyeni incorporate the remainder of the South Coast coastline. These three municipalities cover an area of 3,702 km² and, with a population estimated at 645,000 in 2016, had an average population density of 174 people per km² (Municipalities of South Africa). There is, however, considerable population density variation between municipalities. eThekweni Metro has an average population density of 1,448 per km² compared to 124 per km² for Umzumbe, 145 per km² for Umdoni and 234 per km² for Ray Nkonyeni Municipality (Municipalities of South Africa). Considerable population density variation also exists within each municipality. For Ray Nkonyeni Municipality, the wards incorporating coastal towns such as Margate and Port Shepstone have population densities exceeding 860 people per km², compared to population densities as low as 62 per km² for the ward immediately south of Oribi Gorge, and 85 people per km² for the ward including Port Edward, adjacent agricultural land and the Umtamvuna Nature Reserve (Figure 3) (Wazimaps).

Of significance, from the perspective of tourism planning and management, for the Ugu District Municipality is the existence of a separate tourism entity, Ugu South Coast Tourism. This organisation is tasked with identifying market gaps, identifying new tourist projects and strategically marketing the district as a tourist destination (Ugu District Municipality, 2016, 44).

In its strategic plan for 2013-2017, Ugu South Coast Tourism articulated its mandate as:

- “Responsibly manage the tourism sector within the principles of transparency and accountability.
- Establish and maintain tourism structures that accord with tourism legislation and regulations via appropriate communication and decision- making channels.
- Create strong relationships in tourism with both state and private sector entities as well as the tourism trade.
- Invest financial and human resources towards meeting its operational, marketing and development mandates.
- Have a tourism environment that provides economic opportunity for all its communities.
- Work within the principles that tourism leadership is provided by the Ugu South Coast Tourism as institution and driven by collaboration with the private sector/communities through its operational and constituted business model.”

(Ugu South Coast Tourism Strategy, 2017, 15).



One of Ugu District Municipality's key objectives is to ensure that the four municipalities (three of the municipalities are coastal) work collectively to ensure that the entire population benefits from the core economic sectors of tourism and agriculture (Ugu District Municipality, 2016, 6).

Current value of tourism

In South Africa, domestic tourism accounts for 55.6% of the tourism industry, compared to a global average of 72.7% (World Travel and Tourism Council, 2018e, 6; 2018f, 6). Tourism KwaZulu-Natal estimates that in 2017 there were 4.26 million domestic tourist trips within the province, together with the arrival of 783,962 foreign tourists. The average spend per person for each domestic trip was estimated at R1,052 (Tourism KwaZulu-Natal, 2017, 6).

The Ugu District Municipality Integrated Development Plan states that although tourism statistics for the region are not readily available from Statistics South Africa, nevertheless it is estimated that domestic tourists contribute 79% and foreign tourists 21% of tourism revenue for the region. The report quantified the number of domestic tourism trips per year, because the assumption is made that domestic tourists may undertake more than one trip per year. In the Ugu District Municipal area (Figure 3) it is estimated that 1.1 million domestic tourist trips take place each year, which is more than one-quarter of all domestic tourist trips in KwaZulu-Natal. If the purpose of each visit is analyzed, of interest is that domestic tourists recorded "holiday" for 37% of visits, compared to a slightly lower figure of 27% for foreign tourists (Ugu District Municipality, 2016, 86, 87). The total estimated economic benefit, derived from both foreign and domestic tourists, was calculated at R4.4 billion in 2016.

In the South Coast region, at present tourism is concentrated in the coastal zone, which is regarded as an inherent regional weakness by the integrated development plan (Ugu District Municipality, 2016, 88). Although there is some potential to link the coastal zone with a number of nature reserves in the interior, such as the Oribi Gorge and Umtamvuna nature reserves (Figure 3), it is, however, acknowledged that a number of challenges presently frustrate the extension of tourism facilities into the interior. These include significant differences in both the quantity and standard of infrastructure and tourism product between the coastal zone and the interior, a poorly diversified range of tourism products in the district with the emphasis being overwhelmingly on coastal tourism, and a lack of skills amongst rural people, which make it difficult for them to enter the tourism industry (Ugu District Municipality, 2016, 43, 88).

Although there are seven provincial nature reserves within Ugu District Municipality (Figure 3), these nature reserves are modest in size, and range in area from 17 hectares to 3,257 hectares. Furthermore, these nature reserves do not contain large congregations of wildlife or the Big Five species, and a number were set aside to protect rugged landscape features and therefore tend to be focused on high-energy, niche market activities, such as hiking, and therefore have limited potential for absorbing large numbers of tourists. (Pooley & Player, 1995, 30, 38, 41, 42; Ugu District Municipality, 2016, 24). Despite the many vegetation types represented within the region, many particularly rich in biodiversity, these nature reserves conserve only 1.76% of the land, which is far below international norms (Mucina and Rutherford, 2006, 771, 790; Ugu District Municipality, 2016, 23).

The Integrated Development Plan also makes mention of Blue Flag beaches and adventure tourism activities, such as scuba-diving on the Aliwal Shoal, which is ranked as one of the top diving destinations in the world and an activity which has grown significantly in popularity since the 1980s (Lucrezi et al, 2013, 384; Ugu District Municipality, 2016, 83). The recent extension of the Aliwal Shoal Marine Protected Area in November 2018, will help support the scuba-diving industry and protect ragged-tooth-, tiger- and blacktip- sharks (Guy, 2018).

Negative impacts of coastal tourism and beach carrying capacity

In virtually every nation on earth, the coastline is regarded as a limited natural resource and a concentration of coastal tourism resorts, or poor physical planning, can impact negatively on the viability of coastal tourism, and the quality and functioning of the natural environment. Garcia and Servera (2003, 298) argued that on the Spanish island of Mallorca, “insufficient control of urban planning, overcrowded beaches, and massive construction on the coastal zone has led to degradation processes over the beach-dune system. More beaches have been transformed to urban beaches and the coastline has retreated.”



Figure 3: Location of South Coast region on KwaZulu-Natal indicating seaside towns, current municipal boundaries and main access roads



In an earlier study, Smith (1992, 34) documented the rapid coastal development which has occurred in Pattaya, Thailand, and concluded that, “the natural tree cover has been removed to be replaced by a garish mixture of building types and styles, roads, overhead wires and a maze of signboards.”

If beaches are negatively impacted by uncontrolled coastal tourism, the logical conclusion is that there must be a quantifiable measure of visitor carrying capacity for each beach, beyond which the environmental health of the beach will be negatively impacted. The carrying capacity of a beach is therefore a theoretical maximum number of visitors which can be accommodated without reducing conditions below a predetermined standard. Beach carrying capacity, therefore, should be an important measurement as there are many examples where beaches have been degraded by overcrowding and resultant environmental degradation (Smith, 1992, 34; Garcia and Servera, 2003, 298). However, studies of beach carrying capacity suggest that it is not a simple measurement and is not easily quantified, and also differs from country to country. The calculation of beach carrying capacity is, therefore, not simply determined by dividing the area of beach sand available by the number of beach users. Perceptions of beach crowding also differ substantially from country to country, as in the examples of the Gold Coast of Australia compared to German beaches (Williams and Lemckert, 2007, 23; Haller et al, 2011, 75).

Silva et al (2007, 136) argue that beach carrying capacity determinations should therefore take into account three main factors:

- Surroundings – accessibility, parking area, local accommodation, infrastructure and facilities;
- Beach – access, depth, sea frontage, tidal range, bathing conditions;
- External factors – climate, season, date, time and users’ expectations

Previous beach rating studies

A number of previous studies have sought to develop a beach rating system which could inform any determination of beach carrying capacity. Leatherman (1997) developed a beach rating system based on 50 criteria which were grouped under the three factors of: physical, biological, and human use and impacts. Using the system, a total of 650 beaches in the USA were surveyed and ranked (Leatherman, 1997, 1150).

Morgan (1999) researched beach user preferences and priorities by examining 50 aspects and gathered 859 questionnaires at 23 beaches in Wales. The researcher recorded important differences in the rating of beach amenities, depending on the beach user surveyed. Some beach users indicated a preference for undeveloped beaches, while others showed a preference for traditional beach resorts.

Williams and Lemckert (2007, 21-24) adapted a questionnaire that was developed earlier in Portugal by Da Silva (1998) and applied it to the beaches of the Gold Coast of Australia. A total of 160 interviews were conducted, and four questions from the 25-question-survey related to beach user perceptions of beach crowding. Of the respondents, 37% stated that believed that there were too many people on the beach. Privacy was considered an important factor by 81% of respondents, who were asked to rate six photos of different beaches. Beaches which lacked privacy, and contained large crowds, were given a low rating by respondents.



The survey suggested that an absence of crowds is important to Australian beach users, but this does not automatically apply to tourists in other countries.

A study by Klein and Osleeb (2010, 1149-1156) examined beach quality along the Florida coast in the USA. The authors found that beach nourishment projects, funded by three levels of government, had had a positive impact on coastal tourism revenue. Of importance is that the authors examined the impact on three distinct market segments: the captive (or local) market, the non-captive domestic market, and the international market.

Semeoshenkova and Williams (2011), in a study of beaches in the Sotavento Algarve of Portugal, used the Bathing Area Registration and Evaluation framework (BARE) framework devised by Micallef and Williams (2004). The BARE framework identifies five types of beaches, and evaluates beaches in terms of the criteria considered important to beach users. An example of each of the five beach types was identified and each beach was evaluated. Five parameters were used: safety, water quality, facilities, scenery and litter. Each beach was allotted a score for each of these parameters from A to D, and the cumulative scores then resulted in a rating of one- to five- stars (Semeoshenkova and Williams, 2011, 1283).

Williams (2011, 10) examined the results of 2,984 questionnaires completed by beach users in Wales, Florida, Spain, Malta and Turkey. Respondents were divided between local beach users and tourists, and the results suggest that not all visitors desire the same amenities. Beach users who were visiting remote beaches did not expect life guards, but water quality and safety were rated as the most important parameters.

The Beach Health Index system was developed and rates beaches using factors relating to what is considered to be the three main functions of beaches, namely: providing natural habitat for wildlife, protecting the land and offering recreation opportunities (Ariza et al, 2010). Because it can monitor changes to beaches over time, the system can be used to assess the effectiveness of management actions. The Gold Coast Beach Health Index in Australia made use of previous studies (Todd and Bowa (2016, 710). The researchers summarised Beach Health indicators from other studies and categorised them under six major indicators: clean water and sand, bathing safety, scenic surroundings, facilities, beach width and beach crowding. On the Gold Coast, respondents rated the optimal beach width to be 35 metres (Todd and Bowa, 2016, 713). On Australian beaches perceptions of overcrowding were observed at visitor density rates that are far lower than for similar research on European beaches (Haller et al, 2011, 75).

A three-year research project funded by the British Council interviewed more than one thousand beach users in the United Kingdom, Turkey and Malta. From the interviews, 26 parameters, 18 physical and 8 human, were identified and later ranked using further beach interviews (Anfuso et al, 2017, 171). Based on the parameters, coastal scenery was divided into five distinct classes. Anfuso et al (2017, 175, 176) applied the 26 parameters to assess 100 beaches in Cuba. Since the initial study, more than 4,000 evaluations have been conducted in Spain, Portugal, Croatia, Morocco, New Zealand, Fiji, Australia, USA, China, Japan, Pakistan, Brazil and Colombia (Anfuso et al, 2017, 177).

The environmental attributes of a beach have been highlighted in a number of studies, and can include the physical properties of the beach, ocean currents and water quality and climatic factors such as prevailing winds and weather (Williams and Lemckert, 2007, 23; Semeoshenkova and Williams, 2011, 1283). Decisions to visit a particular beach will also be affected by the presence or absence of certain beach amenities, such as parking areas, ablutions, shark nets, recreation opportunities and other beach-related facilities such as picnic areas and food outlets (Williams, 2011, 10).

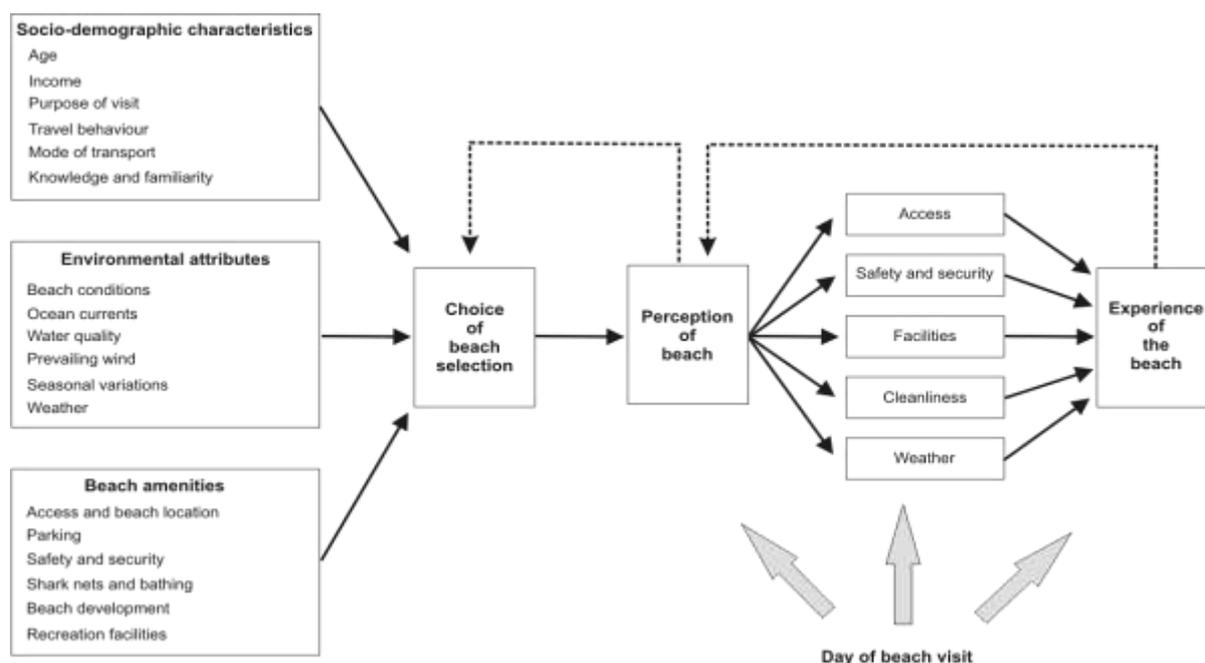


Figure 4: Proposed beach utilisation framework

Based on the literature, the complex, diverse and at times inter-related factors which influence beach choice are depicted in a proposed beach utilisation framework (Figure 4). Demographic characteristics, such as the age of beach users, income levels, purpose of the visit and travel behaviour, will combine with mode of transport and knowledge of and familiarity with the beach to influence the choice of a beach. The definition of travel behaviour refers to frequency of visits and the size of each group (Lucrezi and Saayman, 2015, 1483; Saayman and Saayman, 2017, 1444). A local resident who goes for a walk on the beach every day has different requirements and perceptions than do a group of holiday-makers who are spending a week at the coast. Beach users who do not own their own vehicles will be more restricted in their choice of a beach, and this will be a major factor for the domestic market in South Africa.

Socio-demographic factors, together with environmental factors and the array of amenities available will influence the decision to visit a particular beach. For some beach users, the absence of too many facilities will exert a positive influence as some visitors' desire less-crowded and developed beaches (Williams and Lemckert, 2007, 23; Lucrezi and Saayman, 2015, 1482; Saayman and Saayman, 2017, 1437). The beach user's perceptions of the beach will, in turn, be filtered by a number of perceptive lenses, which will impact on the quality of the experience (Figure 4). The cumulative experience, on the day of the visit itself, will in turn modify the perception of the beach, which will then influence future decisions relating to the choice of a beach.

Methodology

In a study by Garcia and Servera (2003, 293, 296) 41 sandy beaches on the Spanish island of Mallorca were surveyed and mapped. The researchers tabulated the impact of 13 human activities on the functioning of the beach-dune system, and allocated 11 icons relating to coastal tourism amenities in the legend for each of the 41 beaches. This paper is partly based on the research by Garcia and Servera (2003), except that the 16 icons depicted on Maps 1-6 for the South Coast region were plotted accurately on each map.



Some previous studies have combined environmental attributes and management aspects, such as safety and security and the provision of services (Leatherman, 1997; Semeoshenkova and Williams, 2011; Williams, 2011; Todd and Bowa, 2016; Anfuso et al, 2017).

The South Coast region was mapped using 1:50,000 and 1:100,000 maps, supported by Google Earth Pro, and this exercise was followed by ground-truthing to record the amenities for each of the 58 beach surveyed. Ground-truth data was supplemented by information on shark net position, ski boat launching sites and popular fishing spots (KwaZulu-Natal Sharks Board; Mann et al, 2018; South Coast Fishing Hot Spots).

The primary objective of this study was therefore to document and map the current tourist amenities associated with the beaches of the South Coast region. The secondary objective was to evaluate each of the 58 beaches and to score the beaches against eight categories, which were determined by grouping environmental features and tourism amenities. High quality, PDF-format versions of the six detailed maps are available on open-access at the following hyperlink for use by researchers and tourism planners:

<https://drive.google.com/drive/folders/10HIxuM70oF6S36yP1Fx9gws7Xyla4Kma?usp=sharing>

In a recent study of the coastline of KwaZulu-Natal (Willemse & Goble, 2018, 288) a total of 921 access points, of which 92% are pedestrian, were identified along the South Coast. In addition, 67 formal parking lots, 20 informal parking lots and 29 tidal pools were recorded.

In this current study, only beaches which can be accessed by motor vehicle were surveyed because the study is concerned with the distribution of coastal tourism amenities in the South Coast region, and amenities such as ablution facilities and restaurants cannot be serviced if there is no vehicular access. The assumption was made that pedestrian access paths will largely be utilised by local residents, and will therefore fall outside of the definition of tourism. However, it is possible that in some cases tourists could make use of pedestrian access points. This is, however, not a limitation to this study as beaches which are undeveloped, and where no facilities exist, were omitted from the study. These beaches were omitted because the primary objective of the study is to document the current distribution of beach amenities in the region, and to evaluate these amenities. A pedestrian footpath leading to one of the beaches surveyed, will not undermine the validity of the research if the beach can still be accessed by vehicular transport (Willemse and Goble, 2018).

The United Nations Statistics Division's system of International Standard Industrial Classification (ISIC), categorises businesses by the type of economic activity that they are engaged in. Tourism accommodation and food-and-beverage serving businesses are assigned the codes 641 and 642, respectively by Statistics South Africa (the activities prefixed with 631, 632, 633, 634, 721 and 722 on the ISIC classification list) and are considered to be part of the tourism industry, because at certain times of the year they attract tourists (Keyser, 2011, 196-199). Tourist accommodation and restaurants were therefore included in this study. After a desktop mapping exercise, the 58 beaches were visited to assess the current status of amenities on offer. Given our current standards of aerial technology, it was impossible to obtain an accurate picture of tourist amenities for each beach without on-the-ground verification.

In this study, the 23 criteria listed on Maps 1-6 are a combination of environmental attributes and beach amenities. The information gathered for all beaches was then grouped under the eight categories listed on Table 1, and a cumulative score for each beach was calculated. To guard against allocating a subjective rating for each beach, which has occurred in some



previous studies, the individual beach scores were quantified according to the criteria listed on Table 1. Individual scores for the 58 beaches are presented on Table 2 and Figure 5.

Table 1: Rating criteria used for amenities for the beaches of the South Coast, KwaZulu-Natal, depicted on Maps 1-6.

Rating	Environmental characteristics	Parking and access	Safety and Security	Ablutions	Signage and information	Safe swimming conditions	Restaurant or takeaway	Beach-related entertainment
0	Rocky and rugged beach and very narrow sandy beach of <20 m in width	No parking or on adjacent resort only	Remote beach with no personnel present	No toilets, or derelict, vandalised or locked ablutions	Difficult to locate the beach and no clear signage from access road	No shark nets and unprotected bathing	No restaurant or takeaway	No additional facilities, or located only in a resort adjacent to the beach
1	Rocky beach and limited sandy beach of 20-40 m in width	Very limited parking and/or long access path	Occasional municipal personnel present	Basic ablation facilities but need painting, repairs and maintenance	Inadequate signage	No sharks nets but rocky areas providing some protection	Restaurant and takeaway within 1 km of the beach	Limited beach-related facilities such as picnic areas
2	Small sandy beach of 40-50 m in width and <250 m in length situated between rocky headlands	Parking adjacent to beach	Municipal personnel present	Adequate ablation facilities	Some signage relating to beach access and safety	Tidal pool adjacent to the ocean	Limited catering facilities within beach precinct (<300 m)	From 3-5 amenities such as picnic areas and swimming pools
3	Extensive sandy beach of >50 m in width and exceeding 250 m in length	Large asphalt parking area and/or walkways	Municipal personnel on beach and car guards	Ablution facilities, clean, free of vandalism, well maintained and serviced daily	Range of signage relating to beach access and environmental conservation	Shark nets and/or life guards on duty	Restaurant and/or takeaway within immediate beach precinct (<300 m)	Full and comprehensive offering of beach-related amenities

Results - Location, location and location?

According to an old adage, profitable real estate is determined by three factors: location, location and location. If this is a given, it would suggest that the beaches that are closest to a major market, such as the City of Durban, and therefore more accessible to domestic tourists travelling on the N3 or foreign tourists flying to Durban, would be the most popular and would be able to justify and support a greater array of amenities.

Individual scores for each of the 58 beaches were plotted on Figure 5. Beaches administered by eThekweni Metro (City of Durban) achieved an average score of 15.3, which is not significantly higher than for all the beaches. There is no evidence to suggest that beaches further away from the city achieved a lower score. Of the seven Blue Flag beaches within the study area, all are located within the southern half of the South Coast (Figures 16, 17, 18, 20, 21, 23). It could in fact be argued that close proximity to a large city may be disadvantageous for the development of coastal tourism as cities are often associated with dense population, traffic congestion, and high levels of crime and pollution (Smith, 1992, 34; Garcia and Servera, 2003, 298).



Furthermore, the Blue Flag award includes adherence to an international standard of water quality, and the award signifies to the public that the beach is clean, safe and healthy (Department of Tourism). For this reason, eThekweni was only awarded two Blue Flag in 2018 due to unacceptable levels of water pollution caused by sewage, and the city was withdrawn from the Blue Flag Beach programme in 2008 by city manager, Mike Sutcliffe. Although the decision was reversed in 2013, the city was only awarded two Blue Flag beaches in 2018, compared to the ten Blue Flag beaches which the city was previously awarded (Carnie, 2018).

Unacceptably high sewage contamination levels in the sea, resulting from polluted river and stormwater discharges, disqualify most of Durban's beaches from the stringent Blue Flag criteria. In 2015 a researcher from the University of KwaZulu-Natal, Katelyn Johnson, found that water quality at most of the city's beaches had deteriorated during the previous decade and concluded that, "it is unlikely that Durban will be a Blue Flag coastline in the immediate future... Durban's coastline will constantly face challenges due to urban and industrial developments, the presence of many waste-water (sewage) treatment works and informal settlements along the rivers, and the presence of numerous stormwater drains" (Carnie, 2018).

Table 2: Assessment of tourist amenities at the beaches of the South Coast, KwaZulu-Natal

Beach name (north to south)	Map number	Environmental characteristics	Parking and access	Safety and Security	Ablutions	Signage and information	Safe swimming conditions	Restaurant or takeaway	Beach-related entertainment	Total score
Isipingo	1	3	3	3	2	1	3	2	1	18
Pipeline Beach	1	3	3	3	3	1	3	2	2	20
Inyoni Rocks	1	3	3	3	3	1	3	3	3	22
Amanzimtoti Mouth	1	3	3	3	0	0	0	1	0	10
Doonside North	1	3	2	2	2	2	0	1	1	13
Doonside	1	3	3	3	2	2	3	0	0	16
Warner Beach	1	3	3	1	2	2	2	3	1	17
Beach name (north to south)	Map number	Environmental characteristics	Parking and access	Safety and Security	Ablutions	Signage and information	Safe swimming conditions	Restaurant or takeaway	Beach-related entertainment	Total score
St Winifred's	1	3	3	1	2	2	0	1	0	12
Winklespruit	1	3	3	3	3	2	3	1	1	19
Illovo Beach	1	3	0	1	0	2	3	1	0	10
Umgababa	1	3	2	2	2	2	3	1	1	16
Umkomaas	2	2	3	3	2	1	2	3	1	17
Clansthal	2	3	2	1	0	3	0	0	0	9
Scottburgh	2	3	3	3	3	2	3	3	3	23
Park Rynie	2	2	3	3	2	2	2	1	2	17
Preston Bay	2	2	2	2	2	2	2	1	1	14
Rocky Bay	2	3	2	1	2	2	0	1	1	12
Kelso - Happy Wanderers	2	3	1	1	2	2	0	1	0	10
Nkombas Beach	2	3	1	0	1	1	0	0	0	6
Pennington	3	3	3	3	3	3	2	3	1	21
Bazley	3	3	1	1	2	2	3	0	1	13
Ifafa Beach	3	3	1	0	2	1	2	1	0	10
Elysium	3	3	0	0	0	0	0	0	0	3
Mtwalume	3	3	2	1	2	2	2	1	1	14
Hibberdene	4	3	3	3	3	3	3	3	2	23



Umzumbe	4	3	1	2	3	3	3	1	1	17
Pumula - Cracker Bay	4	3	1	0	0	0	0	0	0	4
Banaba Beach	4	3	1	2	2	1	3	3	0	15
Sunwich Port	4	3	2	3	2	2	3	3	1	19
Bendigo	4	3	0	0	0	0	2	0	0	5
Southport	4	3	3	3	3	3	3	3	1	22
Sea Park	4	3	0	0	0	0	0	1	0	4
Umtentweni	4	3	3	3	3	3	3	3	1	22
Port Shepstone – Lucky Dip	4	3	3	2	2	2	2	3	2	19
Port Shepstone - Mbango	4	3	2	2	2	2	0	1	2	14
Sonny Evans Small Craft	5	3	3	1	2	2	2	2	2	17
St Michael’s Beach	5	3	3	3	2	2	3	3	1	20
Uvongo	5	3	3	3	2	2	3	3	2	21
Manaba Beach	5	1	2	2	2	2	2	1	1	13
Margate – Lucien Beach	5	3	3	3	3	3	3	3	3	24
Margate – Whale Deck	5	0	2	0	1	0	0	1	0	4
Margate – Lawrence Rocks	5	2	2	1	0	1	2	1	0	9
Ramsgate Beach	5	3	3	3	3	3	3	3	3	24
Whale Back	5	1	2	2	2	2	2	3	1	15
Ski Boat Bay	5	3	2	2	2	2	3	1	1	16
Mbizane Mouth	5	3	2	1	0	0	0	0	0	6
Southbroom	5	3	3	3	2	3	3	3	1	21
Granny Pool Beach	5	1	2	1	2	3	2	1	0	12
Umkobi Beach	5	3	2	2	2	3	3	1	0	16
Marina Beach	6	3	3	2	3	3	3	3	1	21
Trafalgar Beach	6	3	2	2	3	3	3	1	2	19
Mpenjati Nature Reserve	6	3	2	2	3	3	0	0	1	14
Palm Beach	6	2	2	1	2	2	2	3	1	15
Glenmore Beach	6	3	2	2	2	3	3	2	1	18
Leisure Bay – Kidd’s Beach	6	2	2	2	2	3	3	1	1	16
TO Strand	6	3	1	2	2	3	3	1	0	15
Port Edward – Silver Beach	6	3	3	2	2	3	3	3	3	22
Port Edward lighthouse	6	1	0	0	0	0	0	1	0	2
Average score		2.69	2.10	1.83	1.86	1.90	1.97	1.59	0.97	14.93

Spearman’s correlation was used to assess the relationship between beach scores and distance from the City of Durban. The null hypothesis is that there is no relationship between beach score and distance from the city.

Sum of X = 5617
 Sum of Y = 866
 Mean of X = 96.8448
 Mean of Y = 14.93

$$r_s = 0.04029, p \text{ (2-tailed)} = 0.76393$$

The alternative hypothesis is that there is a positive correlation between these two data. The scatter plot (Figure 5) shows that there is a very weak relationship between beach score and distance ($\rho = 0.04, p < 0.763$). The P value of 0.76393 suggests that the null hypothesis cannot be rejected and that there is no correlation between distance from the City of Durban and beach amenity score. However, as distance increases, this is unlikely to be the case.

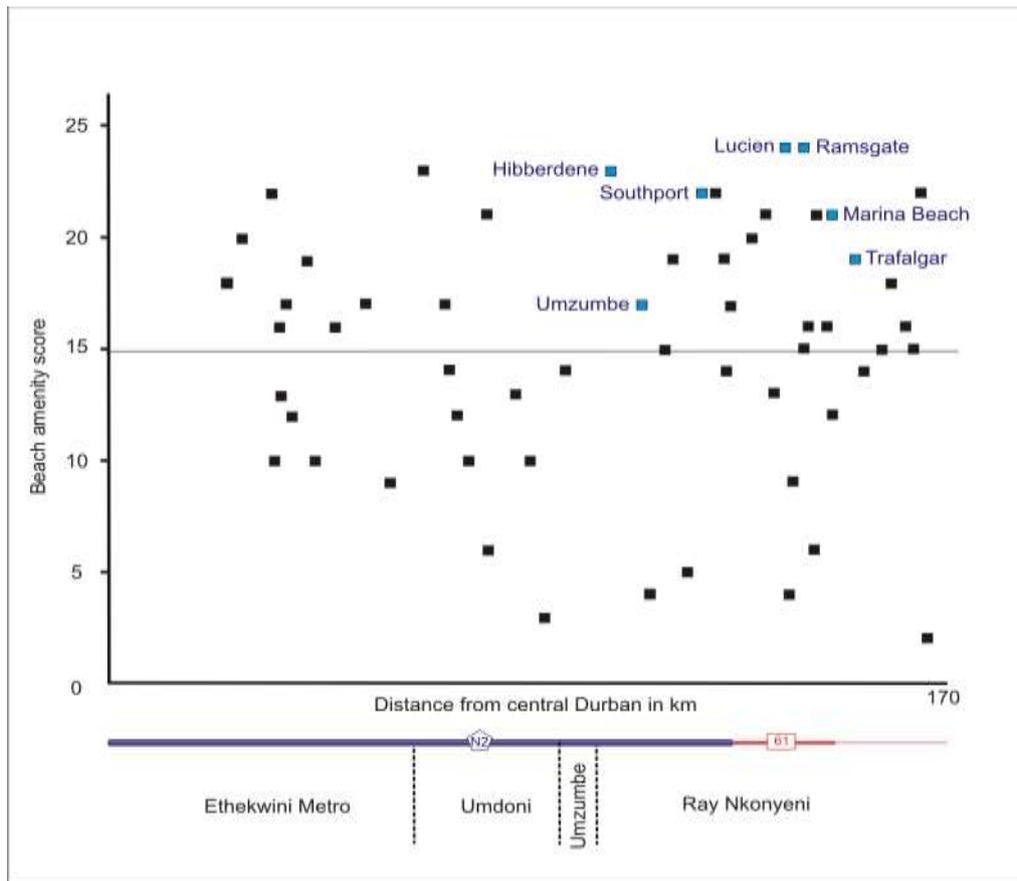


Figure 5: Scatter plot for the 58 beaches of the South Coast surveyed indicating individual scores and distance from the City of Durban. Main access roads, municipal boundaries and Blue Flag beaches are indicated.

The high standard of the N2 and R61 access roads (Figure 13) provides rapid access to the coastal resort towns of the South Coast. However, this high infrastructural standard does not continue beyond the provincial border into the Eastern Cape province, where the former homeland of Transkei extends south of the Umtamvuna River. The disparities in wealth, property ownership and resultant economic development which existed under apartheid (Christopher, 1994, 73, 80, 90; Willemse and Goble, 2018, 283) have produced striking spatial disparities at provincial level and within individual municipalities. The absence of development within the former Transkei homeland resulted in this coastline being referred in popular tourist literature as, “The Wild Coast” (Butchard, 1989, 4; Pinchuck et al, 2010, 332; Reynierse, 1988, 192; Steyn, 1987, 196). Established as one of two reservations for isiXhosa-speaking people, the Transkei was the first homeland to be granted independence in 1976 by the apartheid government, although this was not internationally recognised (Christopher, 1994, 69, 95; Brett, 2012, 230).

In the former Transkei there is, therefore, a paucity of coastal and other agricultural development along a coastline which extends for 255 kilometres from the Umtamvuna River to the Kei River (Butchard, 1989, 4; Pinchuck et al, 2010, 332). At present, all of the coastal resort towns of the South Coast are therefore concentrated along 170 kilometres of the KwaZulu-Natal coastline, with the exception of the Wild Coast casino hotel built just across the border at a time when gambling was illegal in South Africa (Map 6). The entire South Coast region is therefore easily accessible, and less than two hours by motor vehicle from the City of Durban, and distance from the city is not a negative influence. It must be stressed that this finding comes to an abrupt halt on the banks of the Umtamvuna River, as in the Eastern Cape there is at present no coastal access road and only two small coastal towns along the entire “Wild Coast.”



Discussion - over-crowding or under-management?

Haller et al (2011, 72, 75) discussed the importance of coastal tourism in two states in the Baltic region of Germany, where tourism accounts for 11% of GNP. The beach capacity norm that is accepted internationally specifies 10 m² of beach per visitor, and this figure is exceeded during busy holiday periods. If beaches are too crowded, visitors may avoid the beach during peak times or may choose to visit another beach.

There is considerable literature available on the Blue Flag award (Petroman et al, 2010; Morton, 2012; Lucrezi and Saayman, 2015; Lucrezi and van der Merwe, 2015; Klein and Dodds, 2017; Saayman and Saayman, 2017). The seven Blue Flag beaches along the South Coast achieved an average score of 21.4, compared to an average score of 14.93 for all 58 beaches. The Blue Flag beaches, however, were not the only high-scoring beaches and an additional nine beaches achieved a score of 20 points or higher. Taking two Blue Flag beaches in the study area as an example, Lucien and Ramsgate, the area of beach available at low tide is 104,000 m² and 24,000 m². This translates into sufficient space for 10,400 and 2,400 beach visitors on the two beaches, respectively, and only during peak holiday periods would these densities be exceeded.

Although the Blue Flag award can be used as a powerful marketing tool, Lucrezi and van der Merwe (2015, 1136, 1138) found that the presence of the Blue Flag award was not the main determinant of beach choice, as the award does not take all aspects which affect beach choice into account. In some instances, the Blue Flag award will not attract visitors who prefer fewer amenities (Lucrezi and Saayman, 2015, 1487). In Canada, Klein and Dodds (2017, 11) found that an absence of the Blue Flag award did not negatively affect tourist numbers. However, Saayman and Saayman (2017, 1445) argue that as safety is an important consideration for beach users in South Africa, this aspect should be used to better market Blue Flag beaches. As seawater quality is an important criteria for the Blue Flag award, it can be compromised by untreated sewage entering rivers from communities along river banks. Given the high population densities in the region, it is essential that the municipalities implement adequate water and sanitation projects if the future of tourism is to be guaranteed (Ugu District Municipality, 2016, 32)

Conclusion

In total, 58 beaches were assessed along the South Coast, or an average of one beach for every 2.93 kilometres of coastline, preliminary results suggest that additional beach amenities could be established in the South Coast region. Perceptions of over-crowding may have more to do with limited beach amenities than with actual visitor numbers, and the beaches with the greatest array of amenities were observed to attract the highest number of visitors.

In a recent key report on the Indian Ocean Rim Association nations by Rogerson et al (2018) the authors stress that coastal tourism is not a homogenous category. They also make the point that mass tourism to beach resorts does not usually incorporate local entrepreneurs. The researchers argue that certain forms of coastal tourism are better suited for encouraging local community participation. The example of budget tourism is presented, because this sector is often neglected in tourism planning at the expense of international tourists. By targeting budget tourism, local skills can be easily built in communities and local self-reliance increased (Rogerson et al, 2018, 14).

It would be unwise to treat the South Coast region as a homogenous tourist destination and to apply a "one size fits all approach" to the future development of coastal tourism. Given the range of possibilities, it would appear that several options are still available to tourism planners. In future, increasing numbers of tourists can be accommodated by expanding and upgrading facilities at some of the high-scoring beaches (see Figures 6, 7, 10, 11, 12, 22),



while at the same time retaining some of the less developed beaches to cater for certain beach users. Given its high international profile, easily recognisable symbol and ease of use as a marketing tool, it is recommended that consideration should be given to extending the Blue Flag award to other beaches in the region.

IMAGES ETC FOLLOW ON NEXT PAGE.

LEGEND FOR DETAILED MAPS

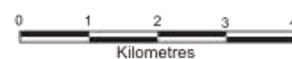
National road, dual carriageway	
Provincial road	
Tarred road	
Gravel road	
Railway	
Airport or landing strip	
River	
Population density exceeds 100 km ²	
Nature reserve	
Marine protected area	
Accommodation	
Caravan Park	
Restaurant	
Blue Flag beach	
Lighthouse	
Lifeguard	
Tidal pool	
Swimming pool	
Shark nets	
Ski boat launching	
Boating	
Fishing	
Golf	
Beach included on table	



Map 2: Umkomaas to Pennington

Beach amenities	Name of beach							
	Nkomba Beach	Kelso - Happy Wanderer's	Rocky Bay	Preston Bay	Park Rynie	Scottburgh	Clansthal	Umkomaas
Sandy beach								
Rock outcrop								
River mouth								
Nature conservation								
Lighthouse								
Toilets								
Tidal pool								
Swimming pool	*							
Shark nets								
Lifesaver								
Blue Flag Beach								
Boat launching								
Fishing								
Boating								
Water slide								
Parking area								
Information	*							
Picnic site	*							
Arts and crafts								
Golf course								
Restaurant	*							
Take-away								
Beachwear shop	*							

* : in resort adjacent to the beach

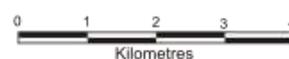




Map3: Pennington to Hibberdene

Beach amenities	Name of beach				
	Mtwalume	Elysiyum	Ifafa Beach	Bazley	Pennington
Sandy beach	■	■	■	■	■
Rock outcrop	■				■
River mouth	■			■	
Nature conservation					■
Lighthouse			■		
Toilets	■	■	■	■	■
Tidal pool	■	■	■	■	■
Swimming pool			*	*	
Shark nets					
Lifesaver				■	
Blue Flag Beach					
Boat launching	■		■		
Fishing	■		■		
Boating					
Water slide					
Parking area	■		■	■	■
Information					■
Picnic site	■			■	■
Arts and crafts					
Golf course					
Restaurant			*		■
Take-away					
Beachwear shop					

* : in resort adjacent to the beach

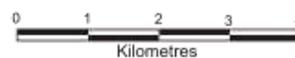




Map 4: Hibberdene to Port Shepstone

Beach amenities	Name of beach										
	Mbango	Lucky Dip Bay	Umtentweni	Sea Park	Southport	Bendigo	Sunwiche Port	Banana Beach	Pumula - Cracker Bay	Umzumbane	Hibberdene
Sandy beach											
Rock outcrop											
River mouth											
Nature conservation											
Lighthouse											
Toilets											
Tidal pool											
Swimming pool											
Shark nets											
Lifesaver											
Blue Flag Beach											
Boat launching											
Fishing											
Boating											
Water slide											
Parking area											
Information											
Picnic site											
Arts and crafts											
Golf course											
Restaurant											
Take-away											
Beachwear shop											

* : in resort adjacent to the beach

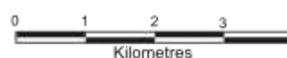




Map 5: Oslo Beach to Marina Beach

Beach amenities	Name of beach													
	Umkobi Beach	Granny Pool Beach	Southbroom	Mbizane Mouth	Ski Boat Bay	Whale Back	Ramsgate Beach	Margate - Whale Deck	Margate - Lawrence Rocks	Margate - Lucien Beach	Manaba Beach	Uvongo	St Michael's Beach	Sonny Evans Small Craft
Sandy beach														
Rock outcrop														
River mouth														
Nature conservation														
Lighthouse														
Toilets														
Tidal pool														
Swimming pool														
Shark nets														
Lifesaver														
Blue Flag Beach														
Boat launching														
Fishing														
Boating														
Water slide														
Parking area														
Information														
Picnic site														
Arts and crafts														
Golf course														
Restaurant														
Take-away														
Beachwear shop														

* : in resort adjacent to the beach





Map 6: Marina Beach to Port Edward

Beach amenities	Name of beach								
	Port Edward lighthouse	Port Edward - Silver Beach	T O Strand	Leisure Bay - Kidd's Beach	Glenmore Beach	Palm Beach	Mpenjati Nature Reserve	Trafalgar Beach	Marina Beach
Sandy beach									
Rock outcrop									
River mouth									
Nature conservation									
Lighthouse									
Toilets									
Tidal pool									
Swimming pool									
Shark nets									
Lifesaver									
Blue Flag Beach									
Boat launching									
Fishing									
Boating									
Water slide									
Parking area									
Information									
Picnic site									
Arts and crafts									
Golf course									
Restaurant									
Take-away									
Beachwear shop									

* : in resort adjacent to the beach



Figure 6: Inyoni Rocks, in Amanzimtoti (Map 1), is one of the most developed beaches of the South Coast
Source: Author's own



Figure 7: Completed in the 1980s with provincial funding, Pipeline Beach (Map 1) alleviates some of the pressure on the beaches of Amanzimtoti. Source: Author's own



Figure 8: Access to Illovo Beach (Map 1) is restricted by the railway line and adjacent, high-rise coastal developments in Kingsburgh. Source: Author's own



Figure 9: The electrification of the railway just inland of the coastal dunes was completed in 1970, but the railway poses a number of access challenges and has limited coastal development along portions of the South Coast between Durban and Port Shepstone. Source: Author's own



Figure 10: Previously reserved for black visitors only, facilities at Umgababa (Map 1) are being improved by the construction of a new swimming pool by eThekweni Metro. Source: Author's own



Figure 11: Scottburgh (Map 2), at the mouth of the Mpambanyoni River, is one of the most popular seaside resort towns of the South Coast. Source: Author's own



Figure 12: Pennington (Map 3) is a forested town located 70 km south of central Durban and the main beach is complemented by three golf courses in the vicinity. Source: Author'



Figure 13: The N2 and R61 highways provides rapid access to the South Coast seaside towns for 150 km from Durban to Southbroom. Source: Author's own



Figure 14: Bazley Beach (Map 3) on the Fafa River, has not been subjected to some of the development pressures visible along much of the South Coast, as there is no direct access road along the coast connecting the village to adjacent coastal towns. Source: Author's own



Figure 15: Sub-standard and poorly maintained picnic and parking facilities at Ifafa Beach (Map 3). Source: Author's own



Figure 16: Development of the Blue Flag beach at Hibberdene (Map 4) is partly restricted by the close proximity of the railway. Source: Author's own



Figure 17: The Blue Flag beach at Umzumbe (Map 4) occupies the beach stretching north of the rocky outcrop of Stiebel Rocks. Source: Author's own



Figure 18: Facilities at the Blue Flag beach at Southport (Map 4) include a picnic site located under milkwood trees and the adjacent Captain's Anchor restaurant. Source: Author's own



Figure 19: Umtentweni (Map 4) is the closest shark-net-protected beach to the administrative and industrial town of Port Shepstone. Source: Author's own



Figure 20: Margate's Lucien, a Blue Flag beach, (Map 5) covers 104,000 m² and is the closest coastal resort town to the only regional airport located on the South Coast. Source: Author's own



Figure 21: Informal traders at Ramsgate, a Blue Flag beach (Map 5). Informal traders were recorded at nine beaches during the survey of the South Coast. Source: Author's own



Figure 22: Southbroom Beach (Map 5) occupies a large sandbar at the mouth of the Mbizana River. Source: Author's own



Figure 22: A wooden walkway provides access to Granny Pool Beach (Map 5) at Southbroom. Source: Author's own



Figure 23: Adjoining a marine protected area, Trafalgar Beach (Map 6) is one of seven Blue Flag beaches along the South Coast. Source: Author's own



Figure 24: Dense sub-tropical vegetation in Glenmore (Map 6) is an integral feature of many of the coastal villages of the South Coast. Source: Author's own



References

- Anfuso, G., Williams, A.T., Casas Martínez, G., Botero, C.M., Cabrera Hernández, J.A. & Pranzini, E. (2017). Evaluation of the scenic value of 100 beaches in Cuba: Implications for coastal tourism management. *Ocean and Coastal Management*, 142, 173-185.
- Ariza, E., Jimenez, J., Sarda, R., Villares, M., Pinto, J., Fraguell, R., Roca, E., Marti, C., Valdemoro, H. Ballester, R. & Fluvia, M. (2010). Proposal for an Integral Quality Index for Urban and Urbanized Beaches. *Environmental Management*, 45, 998-1013.
- Brett, M., Briggs, P., Johnson-Barker, B. & Renssen, M. (2011). *Eyewitness Travel: South Africa*. London: Dorling Kindersley.
- Brett, M.R. (2012). *Getaway guide: Eastern Cape & Wild Coast*. Cape Town: Sunbird Publishers.
- Buchanan, K. & Hurwitz, N. (1951). Land Use in Natal. *Economic Geography*, 27(3), 222-237.
- Butchart, D. (1989). *A Guide to the Coast and Nature Reserves of Transkei*. Linden: Wildlife Society of South Africa.
- Carnie, T. (2018). Why Durban only got two Blue Flag beaches. *Times Live*, 15 October. Retrieved from: www.timeslive.co.za/news/south-africa/2018-10-15-why-durban-only-got-two-blue-flag-beaches/, [Accessed 14.2.2019]
- Christopher, A.J. (1971). Colonial Land Policy in Natal. *Annals of the Association of American Geographers*, 61(3), 560-575.
- Christopher, A.J. (1994). *The Atlas of Apartheid*. London: Routledge.
- Da Silva, C. (1998). *Beach Perception Survey*. Departamento De Geografia E Planeamento Regional, Universidade Nova De Lisboa.
- Department of Tourism. (2017). *Tourism Blue Flag Programme*, 14 June 2017. Retrieved from: www.tourism.gov.za/AboutNDT/Branches1/Knowledge/News/Pages/Tourism-Blue-Flag-Programme.aspx, [Accessed 14.2.2019]
- Defeo, O., McLachlan, A., Schoeman, D.S., Schlacher, T.A., Dugan, J., Jones, A., Lastra, M, & Scapini, F. (2009). Threats to sandy beach ecosystems: a review. *Estuarine, Coastal and Shelf Science*, 81(1), 1-12.
- Garcia, C. & Servera, J. (2003). Impacts of Tourism Development on Water Demand and Beach Degradation on the Island of Mallorca (Spain) *Geografiska Annaler. Series A, Physical Geography*, (International Symposium on Land Degradation and Desertification), 85(3/4), 287-300.
- Guy, D. (2018). KZN nets 4 new protected areas as Cabinet approves applications. *Independent Online*, 24 November. Retrieved from: www.iol.co.za/ios/news/kzn-nets-4-new-protected-areas-as-cabinet-approves-applications-18247505, [Accessed 14.2.2019]
- Haller, I., Stybel, N., Schumacher, S. & Mossbauer, M. (2011). Will Beaches be enough? Future Changes for Coastal Tourism at the German Baltic Sea. *Journal of Coastal Research*, (Proceedings of the 3rd International Coastal Symposium), Special Issue 61, 70-80.



- Kellett, F. & Willemse, L. (2008). *South Africa Handbook*. Bath: Footprint.
- Keyser, H. (2011). *Developing Tourism in South Africa: Towards competitive destinations*. Cape Town: Oxford University Press.
- Klein, Y.L., Osleeb, J. & Viola, M.R. (2004). Tourism-generated earnings in the coastal zone: a regional analysis. *Journal of Coastal Research*, 20(4), 1080-1088.
- Klein, Y.L. & Osleeb, J. (2010). Determinants of coastal tourism: a case study of Florida beach counties. *Journal of Coastal Research*, 26(6), 1140-1156.
- Klein, L. & Dodds, R. (2017). Blue Flag beach certification: an environmental management tool or tourism promotional tool? *Tourism Recreation Research*, DOI: 10.1080/02508281.2017.1356984, 1-13.
- KwaZulu-Natal Sharks Board. *List of the 37 beaches protected by the KZN Sharks Board*. Retrieved from: www.shark.co.za/Pages/BatherProtection, [Accessed 14.02.2019]
- Leatherman, S.P. (1997). Beach ratings: a methodological approach. *Journal of Coastal Research*, 13(1), 253-258.
- Lucrezi, S. & van der Merwe, P. (2015). Beachgoers' Awareness and Evaluation of the Blue Flag Award in South Africa. *Journal of Coastal Research*, 31(5), 1129-1140.
- Lucrezi, S., Saayman, M. & van der Merwe, P. (2013). Perceived Diving Impacts and Management Implications at a Popular South African Reef. *Coastal Management*, 41, 381-400.
- Lucrezi, S. & Saayman, M. (2015). Beachgoers' Demand vs. Blue Flag Aims in South Africa. *Journal of Coastal Research*, 31(6), 1478-1488.
- Mann, B., Khumalo, D., Maggs, J., Els, M. & Mselegu, X. (2018). *Boat Launch Site Monitoring System (BLSMS): 2017 Annual Report*. ORI Unpublished Report, 35. Durban: Oceanographic Research Institute.
- Morgan, R. (1999). Preferences and Priorities of Recreational Beach Users in Wales, UK. *Journal of Coastal Research*, 15(3), 653-667.
- Morton, B. (2012). Blue Flags. *Marine Pollution Bulletin*, 64, 1983-1984.
- Mucina, L. & Rutherford, M.C. (2006). *The Vegetation of South Africa, Lesotho and Swaziland*. Pretoria: South African National Biodiversity Institute.
- Municipalities of South Africa. *KwaZulu-Natal Municipalities*. Retrieved from: <https://municipalities.co.za/provinces/view/4/kwazulu-natal> [Accessed 25.2.2018]
- Pinchuck, T., McCrea, B., Reid, D. & Velton, R. (2010). *The Rough Guide to South Africa*. London: Rough Guides.
- Petroman, I., Amzulescu, O., Sărăndan, H., Petroman, C., Coman, S., Orboi, D.M. & Ivu, M. (2010). Blue Flag: A Symbol of Environmental Protection. *Animal Science and Biotechnologies*, 43(2), 426-428.



Pooley, T. & Player, I. (1995). *KwaZulu-Natal Wildlife Destinations*. Halfway House: Southern Book Publishers.

Reynierse, C. (ed.) (1988). *Illustrated Guide to the Southern African Coast*. Cape Town: AA The Motorist Publications.

Robertson, C. (2017). Africa's economies ranked by GDP, which is really the largest? *CNBC Africa*, October 21. Retrieved from: www.cnbc.com/africas-economies-ranked-gdp-really-largest/, [Accessed 14.2.2019]

Rogerson, C.M., Benkenstein, A. & Mwongera, N. (2018). *Coastal Tourism and Economic Inclusion in Indian Ocean Rim Association States*. Discussion Paper. GEGAfrica: Global Economic Governance.

Saayman, M. & Saayman, A. (2017). How Important Are Blue Flag Awards in Beach Choice? *Journal of Coastal Research*, 33(6), 1436-1447.

Schlacher, T.A., Dugan, J., Schoeman, D.S, Lastra, M., Jones, A., Scapini, F., McLachlan, A. & Defeo, O. (2007). Sandy beaches at the brink. *Diversity and Distributions*, 13, 556-560.

Semeoshenkova, V.S. & Williams, A.T. (2011). Beach quality assessment and management in the Sotavento (Eastern) Algarve, Portugal. *Journal of Coastal Research*, (Proceedings of the 11th International Coastal Symposium), 1282-1286.

Silva, C.P., Alves, F.L. & Rocha, R. (2007). The Management of Beach Carrying Capacity: The case of northern Portugal. *Journal of Coastal Research*, (Proceedings of the 9th International Coastal Symposium), Special Issue 50, 135-139.

Smith, O. (2018). Revealed: The countries that rely most on your money. *The Daily Telegraph*, 28 March. Retrieved from: www.telegraph.co.uk/travel/maps-and-graphics/Mapped-The-countries-that-rely-most-on-your-money/, [Accessed 14.2.2019]

Smith, R.A. (1992). Coastal Urbanization: Tourism Development in the Asia Pacific. *Built Environment*, 18(1), 27-40.

South Coast Fishing Hot Spots. Retrieved from: <http://mustbyfishingcharters.co.za/kzn-south-coast-fishing-hot-spots/>, [Accessed 14.2.2019]

Steyn, A. (ed.) (1987). *Off The Beaten Track: Selected day drives in Southern Africa*. Cape Town: AA The Motorist Publications.

Todd, D.J. & Bowa, K. (2016). Development of Beach Health Index for the Gold Coast, Australia. *Journal of Coastal Research*, (Proceedings of the 14th International Coastal Symposium), Special Issue 75, 710-714.

Tourism KwaZulu-Natal. (2017). *Annual Report 2017*. Durban: Tourism KwaZulu-Natal.

Ugu District Municipality. (2016). *2017/2018 – 2021/2022 – Integrated development plan*. Port Shepstone: Development Planning, Ugu District Municipality.

Ugu South Coast Tourism. (2017). *Tourism Strategy 2013-2017*. Port Shepstone: Ugu South Coast Tourism.



Wazimaps. *Ray Nkonyeni Municipal Wards*. Retrieved from: <https://wazimap.co.za/profiles/municipality-KZN216-ray-nkonyeni/> [Accessed 14.2-2019]

Wildlife and Environmental Society of Southern Africa. *Blue Flag Beach Criteria and Explanatory Notes – 2017*. Retrieved from: <http://wessa.org.za/site17/wp-content/uploads/2018/03/Beach-Criteria-and-Explanatory-Notes-changes-2017-update-05122016.pdf>, [Accessed 14.2.2019]

Willemse, M. & Goble, B.J. (2018). A Geospatial Approach to Managing Coastal Access in KwaZulu-Natal, South Africa. *Journal of Coastal Research*, 34(2), 282-292.

Williams, P. & Lemckert, C. (2007). Beach Carrying Capacity: Has it been exceeded on the Gold Coast? *Journal of Coastal Research*, (Proceedings of the 9th International Coastal Symposium), Special Issue 50, 21-24.

Williams, A.T. (2011). "Definitions and typologies of coastal tourism destinations" In: Jones, A. and Phillips, M. (eds.). *Disappearing Destinations: Climate change and future challenges for coastal tourism*. Wallingford: Centre for Agriculture and Bioscience International (CABI).

Williams, A.T. & Barugh, A. (2014). Beach user perceptions at the eastern Yucatan peninsula, Mexico. *Journal of Coastal Research*, (Proceedings of the International Coastal Symposium), Special Issue 70, 426-430.

World Tourism Organization (UNWTO). (2018). *UNWTO Tourism Highlights, 2018 Edition*. Madrid: UNWTO.

World Travel and Tourism Council. (2018a). *Travel and Tourism Economic Impact 2018: Caribbean*. London: World Travel and Tourism Council (WTTC).

World Travel and Tourism Council. (2018b). *Travel and Tourism Economic Impact 2018: Mauritius*. London: World Travel and Tourism Council (WTTC).

World Travel and Tourism Council. (2018c). *Travel and Tourism Economic Impact 2018: North America*. London: World Travel and Tourism Council (WTTC).

World Travel and Tourism Council. (2018d). *Travel and Tourism Economic Impact 2018: Seychelles*. London: World Travel and Tourism Council (WTTC).

World Travel and Tourism Council. (2018e). *Travel and Tourism Economic Impact 2018: South Africa*. London: World Travel and Tourism Council (WTTC).

World Travel and Tourism Council. (2018f). *Travel and Tourism Economic Impact 2018: World*. London: World Travel and Tourism Council (WTTC).