TOURISM TODAY IN THE ANDAMAN ISLANDS

An assessment of challenges through two case studies

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List of abbreviations

ANI - Andaman and Nicobar Islands
ANIIDCO - Andaman and Nicobar Islands Integrated Development Corporation Limited
ASEAN - Association of South-East Asian Nations
CRZ - Coastal Regulation Zone
DG - Diesel Generator
IDA - Island Development Agency
LAN - Local Area Network
MHA - Ministry of Home Affairs
MRP - Maximum Retail Price
NGO - Non-Governmental Organisation
NITI Aayog - The National Institution for Transforming India
POCSO - Protection of Children from Sexual Offences (Act)
RFQ - Request for Qualification (bidding document by NITI Aayog, 2018)
STP - Sewage Treatment Plant
UDAN - *Ude Desh Ka Aam Nagrik* (a regional airport development and “Regional Connectivity Scheme” of Government of India)
Executive summary

Since the 1980s, tourism has been one of the main focus areas of development in the Andaman and Nicobar Islands (ANI). It was first promoted to reduce dependence on forest resources such as timber and later due to direct economic benefits such as increased revenue and employment.

In recent years too, the NITI Aayog has identified tourism in the ANI as a “key economic driver”. Some of the recent efforts to promote tourism include development of 5 star resorts in select locations, relaxation of certain regulations for foreign tourists, and improved inter-island connectivity to turn the islands into a popular international destination such as Singapore or Maldives. To some extent, this is already underway as the tourist influx has doubled within the past five years.

While many planning documents stress the importance of developing sustainable or ecotourism models for the ANI to ensure that its natural and cultural heritage are protected, there is little clarity on what this means in practical terms. Moreover, most evaluative studies of tourism are critical about the sustainability aspect of this industry. This is mainly because tourism often has negative environmental impacts; for example long-distance flights contribute to greenhouse emissions and increased consumption levels around wilderness areas increase the pressure on natural resources. Hence, there is a longstanding debate on whether tourism is good or bad for a region.

However, this report aims to move beyond such a binary debate. Instead, it presents an overview of the on-ground challenges and opportunities with respect to developing tourism in the Andaman Islands, through case studies of Smith and Ross Islands, as well as Swaraj Dweep (erstwhile Havelock Island). Smith and Ross islands are twin islands, selected by the government as one of the new locations for the establishment of high-end tourism whereas Swaraj Dweep is already well-established as one of the most visited destinations in the ANI.

This report describes the capacity of public infrastructure and services to manage current levels of tourism and identifies the challenges that need to be addressed immediately. Based on 110 semi-structured qualitative interviews, it identifies the various stakeholders involved in tourism, the nature and extent of their engagement, and how they sustain and manage the current levels of tourist influx. This report also identifies key action points that can help to address current challenges and build a strong foundation for the long-term sustainability of this sector.
Introduction

As one of the most popular tourist destinations in the country, the Andaman Islands attract thousands of tourists to its clear waters and white sandy beaches each year. Located within the Indo-Burma biodiversity hotspot, these islands make an affordable getaway for Indians and foreigners alike. For example, in 2014 nearly 4 lakh tourists visited the islands, which is double the number of footfalls reported in 2011. Recognising their significance on the global tourism map, several public and private investors now aim to scale up opportunities for tourism several-fold. Plans such as those put forward by the NITI Aayog, the central government’s think tank, include building 7-star resorts, international airports, seaports, and other high-end infrastructure so as to turn the islands into “another Singapore”, or “another Maldives” i.e. countries with highly developed coastlines. However, with plans to scale up tourism even further, it is crucial to understand the status of basic public infrastructure at present. Facilities such as waste management, food, water supply and sanitation, etc. are essential to sustain a growing number of visitors to the islands, as well as its inhabitants. While most of the studies on tourism have been critical of its effects on the environment, the goal of this report is to move beyond the debate of whether tourism is good or bad. Therefore, the aim of this report is to give an overview of the on-ground challenges and opportunities of developing tourism in the Andaman Islands. It identifies the various players involved in tourism, the nature and extent of their engagement, and how they sustain and manage the current levels of tourist influx. In the end, the report also identifies key action points that can help to address challenges on-ground and build a strong foundation for the long-term sustainability of the tourism sector.

The study was conducted at two sites: Smith and Ross islands, and Swaraj Dweep (erstwhile Havelock Island). Smith and Ross islands are adjacent islands, selected by the government as one of the main centres for government and private schemes for the establishment of luxury resorts for high-end tourism. While Smith Island hosts a popular tourism site, Ross Island is a Protected Area categorized as a Wildlife Sanctuary. The second major site, Swaraj Dweep is one of the most visited tourist destinations in the islands and is in close proximity to the Rani Jhansi Marine National Park, a marine protected area.
Background

Island tourism

Island tourism has contributed significantly to economies worldwide (Allen et al., 2018; Jaafar & Maideen, 2012; McElroy, 2003; Taua’a, 2013), and the natural environment of islands plays a key distinguishing feature that attracts tourists to these places (Fonseca et al., 2015; Henderson, 2001; Timms & Conway, 2015). Several studies have been conducted to assess the effects of island tourism on the environment and economy, and the results have thus led to widespread debates on its sustainability. On the one hand, tourism adversely impacts the environment by contributing to greenhouse gas emissions and increasing the pressure on biological resources and ecosystem services (Fonseca et al., 2015; Moreno & Amelung, 2014). On the other hand, tourism has also contributed significantly towards conservation of the natural environment, for example, by financing conservation through revenue generation (Fonseca et al., 2015; Viana, Halpern, & Gaines, 2017). For Small Island Developing States (SIDS), tourism is one of the main contributors of revenue and has also created significant opportunities for employment (UNDP, 2018). For instance, in the Seychelles Islands, 50% of the share in GDP is contributed by tourism (Lau, 2018). In several South Asian countries, tourism has offered an important alternative livelihood for coastal fishing communities (Fabinyi, 2010). However, these benefits are not always uniform. Some stakeholders are able to secure permanent and steady jobs in tourism, while others may find only seasonal opportunities (Xing & Dangerfield, 2011).

Nevertheless, the tourism sector relies entirely upon a network of stakeholders who run local businesses that provide services such as transportation and accommodation (Jaafar & Maideen, 2012; Sharma, Bijoor & Ramesh, 2018). For effective sustenance, the tourism sector also requires supporting infrastructure such as a regular supply of energy, water, and food as well as better waste management and sanitation facilities. Therefore, tourism is dependent on the services from multiple sectors but this is rarely discussed in academia, and it is often assumed that these services are set in place once the tourist inflow begins. Furthermore, island economies can be “natural resource driven”, relying on fisheries, timber or mineral resources, or “service oriented” which relies on tourism or other financial services (Onguglo & Eugui, 2014). This leads to different resource use patterns by different stakeholder groups that are engaged in tourism. It is challenging to predict the impacts of tourism, as its benefits and drawbacks are skewed and variable in different places and for different groups of stakeholders (Xing & Dangerfield, 2011). In such a scenario, a clear picture of the system of stakeholders and the nature of their engagements is necessary for effective policy and planning in island contexts (Xing & Dangerfield, 2011).

Basic concepts in tourism and their application

One of the primary concerns arising out of tourism has been the intensive use of resources and a decline in the quality of the surrounding environment due to overcrowding of tourist destinations (Butler, 1996; Tegar & Saut Gurning, 2018). Some of the approaches to promote tourism while minimising its impact on environment
include the adoption of sustainable tourism, ecotourism, use of carrying capacity models for planning, etc. (Butler, 1996; Butler, 1999; Weaver & Lawton, 2007; Ruhanen, Weiler, Moyle, & McLennan, 2015). In the 1960s, tourism studies borrowed the concept of ‘carrying capacity’ from population ecology (Butler, 1996). Carrying capacity was used to mathematically estimate the maximum number of tourists who can visit a tourist destination without leaving any negative impact on the natural environment of a tourist destination (Butler, 1996; Coccossis & Parpairis, 1992). Later, in the 1980s, socio-cultural and economic indicators were also incorporated in the process of calculating the carrying capacity (Butler, 1996). In the same decade, the concept of ‘sustainable tourism’ developed, which takes into account impacts on multiple dimensions: economic, social, and environmental in the current as well as future needs of tourists as well as host communities (Butler, 1996). Sustainable tourism initially branched out from the concept of ‘sustainable development’, which the World Commission on Environment and Development (WCED) popularized in the 1987 Brundtland Report (Ruhanen et al., 2015). Other concepts in tourism such as ‘ecotourism’ and ‘responsible tourism’ have been derived from ‘sustainable tourism’ (Chettiparamb & Kokkranikal, 2012a; Self et al, 2010). Ecotourism is defined as travel that helps sustain the well-being of local people, and involves a component of education and information sharing with tourists as well as locals to generate awareness (The International Ecotourism Society (TIES), 2015). It is often confused with ‘nature-based tourism’, which is an “excursion in the protected areas or wilderness areas” (Kuenzi C. & McNeely J., 2008). On the other hand, responsible tourism is a more holistic approach because it is “a form of tourism which respects the natural, built, and cultural environments of the community, and the interest of all parties concerned” (Smith, 1990).

The application of these concepts in the market gained popularity as the demand for eco-friendly products increased with the rise in concern for the environment (Self et al, 2010). Many tour operators use eco-friendly labels and certifications to distinguish their services from others in the market (Self et al, 2010) and such eco-certification programmes assess tourism businesses based on different criteria (Director, 2015). For instance, the Blue Flag programme for beaches, marinas, and boat operators evaluates components such as education, management, and safety of the people and environment. Likewise, Ecotourism Australia, a private organisation, provides eco-certifications to tour guides and nature-based tourist destinations in the protected areas of Australia. However, these eco-certification programmes are voluntary and, in some cases, flexible in accommodating non-compliance of any criteria (Director, 2015; Self et al., 2010). Tourism studies reason that this is due to the absence of standard definition and criteria for sustainability and ecotourism (Omar, 2015). In academic literature on tourism, the debate on whether there should be global standard criteria and definitions has been going on since the 1980s (Cobbinah, 2015; Hjalager, 2000; Self et al., 2010). Despite these shortcomings, there are some projects that have successfully applied these concepts.

One example is the Kumarakom region in Kerala, which is a popular tourist destination that attracts over 4 lakh tourists annually. It is known for its backwaters, including the Vembanad lake, and a bird sanctuary.
In 2015-16, Kumarakom received the Best Responsible Tourism Initiative award by the Union Ministry of Tourism. The region became popular as a tourist destination in the 1990s, when a resort was established by the Taj group. A recent study (Chettiparamb & Kokkranikal, 2012a), shows that in the following years, Kumarakom witnessed a significant rise in tourist arrivals followed by the development of associated tourism infrastructure. Most of the latter was unplanned. This had negative impacts on the wetlands in the region and affected the water quality (Narayanan & Vijayan, 2007; Chettiparamb & Kokkranikal, 2012b; Vincy, Rajan, & Kumar, 2012). Moreover, the access to the Vembanad lake also became restricted, much to the disappointment of the local community. To address these issues and for better regulation of tourism, the Kumarakom gram panchayat, along with other civic organisations such as Equations, constituted a functional committee on tourism in 2004. However, a year later, the functional committee no longer existed and locals actively voiced their opinions through social movements (Chettiparamb & Kokkranikal, 2012b). In response, the Kerala government started a responsible tourism programme in 2007, under which tourism committees were formed at the state and local level. Two of the main initiatives by the local level committee in Kumarakom were to help hotels and resorts to source their food and human resources locally, by making resource maps for Kumarakom. In addition, 20 ponds in the area were restored and turned into fish farms. Microenterprises run by local women were also set up to promote traditional art products.

The Seychelles Islands are another popular destination which attract around 350,000 tourists annually. Food production in the islands is a major contributor to greenhouse emissions and it was found out that 50% of the waste going to the landfills of Seychelles was comprised of only food waste (Bonnelame, 2018). Therefore, the Seychelles Sustainable Tourism Foundation, together with another private organisation, Betterfly Tourism, initiated the food waste reduction programme in 2018 (Bonnelame, 2018). Under this programme, a software called EDGAR was developed for use by hotels and restaurants, to estimate the overall cost of food waste generated by tracking investment in production and losses incurred by leftover food. SSTF helps in training the staff at these restaurants and hotels to make an action plan that will help them minimise their food waste and reduce losses. Another initiative of this programme includes the formation of local clusters with hotels and farmers so that the latter could use the food waste for either composting or for feeding livestock. Further, the packaging of food items and beverages are recycled, and the use of single-use plastic is discouraged. For instance, drinking water in the hotels is now supplied in glass bottles, which are refilled and reused yearly.

A third example is the case of Jamaica, which is one of the popular destinations in the Caribbean beach tourism circuit in 2017, 43 lakh tourists visited the island (Jamaica Information Service JIS, 2018). However, the disposal of non-biodegradable waste has become a major challenge in this small island nation. Due to the limited capacity of landfills and scarcity of land because of the expansion of tourist infrastructure, the government, along with private agencies, has started a plastic recycle initiative (JIS, 2019). Under the ‘Deposit refund scheme’ of 2019, citizens will be refunded for
depositing plastic bottles (one dollar per bottle). The private agencies will then recycle it and sell the final product in the market. Private companies such as Wisynco and Tourism Product Development Company Ltd, also conduct recycling competitions in schools and in other locations to encourage local recycling of plastics. ("Record 4.3 Million Tourist Arrivals in 2017," 2018)Another example is the case of Maya Bay in Thailand, which is a destination that receives approximately 5000 tourists and 200 boats every day (Ellis Petersen, 2018b). However, this high footfall of tourists and their activities on the bay were unregulated, which resulted in the damage of coral reefs and the disappearance of several fishes from the bay (Ellis Petersen, 2018a). To address this problem, the Thai government closed Maya Bay for tourists in 2018. During the closure period, a coral reefs showed signs of regeneration (Sakoot, 2018). In addition, sharks that were frequently spotted in the bay in the 1990s, before the rise in tourist activities, returned in December 2018 - 6 months after the ban (Promchertchoo, 2018; Sakoot, 2018). Before the bay is reopened for tourists, the Kasetsart University is conducting a carrying capacity study for better management of tourism in the future (Promchertchoo, 2018).

In all the above examples, tourism is used as a means to drive conservation of the natural environment and development of the local economy. Tourism, especially eco-tourism, is considered a ‘triple win’ which can combine the abovementioned aspects as well as contribute to the economic development of the nation (Duffy, 2015). This is possible because of capital accumulation which is used to re-invest and further expand businesses, to hire labour and to support conservation programmes (Duffy, 2015; Fletcher & Neves, 2012). Also as the demand for ecotourism rises, more and more avenues open up for the investment of capital (Fletcher & Neves, 2012; Mosedale, 2015). In this process, while marketing ecotourism, conservation gets strongly emphasized - many destinations are projected as the last chance for tourists to experience the landscape before it is affected by degradation, or to encounter certain species before they go extinct. Therefore landscapes and species also act as the ‘natural capital’ of ecotourism projects (Fletcher & Neves, 2012; Mosedale, 2015). Their presence provides an alternate source of income for local communities, who otherwise depend on the natural resource extraction for their livelihoods (Duffy, 2015; Fletcher & Neves, 2012; Münster & Münster, 2012). However, there are also critiques of this approach. First, ecotourism projects encourage only those activities which are profitable. For example, traditional knowledge that can be used for art and craft are promoted in such projects whereas hunting or fishing by locals for subsistence is not acknowledged or sometimes considered as being against the conservation goals i.e. not ‘eco’ activities whereas these may be important to the local community. Secondly, negative impacts of ecotourism are sometimes invisible. For example, carbon footprints of tourists during travel and its impact on the ecosystem is frequently not taken into account when these projects are evaluated (Fletcher & Neves, 2012). Therefore, while tourism and its subsets such as ecotourism promote conservation and development of the local community, they can also conceal contradictions in their objectives and result in mixed social and environmental outcomes (Duffy, 2015; Fletcher & Neves, 2012; Mosedale, 2015; Münster & Münster, 2012).
Tourism in the ANI

Within the last 5 years, tourist influx to the ANI has doubled from over 2 lakh visitors in 2013 to 5 lakhs in 2018 (Directorate of Tourism, 2019). Recent efforts by the government have focused on further increasing this footfall because tourism has been described as a “key economic driver” by the NITI Aayog. The NITI Aayog is guiding the Island Development Agency (IDA) in planning large-scale tourism projects in ANI - the IDA was formed in 2017 by the Ministry of Home Affairs with the intention of initiating “holistic development of the islands through tourism”. Consequently, three islands i.e. Aves Island, Long Island, Smith and Ross Islands, are now being opened for the development of resorts. Proposals to open new islands for tourism have been discussed from the early 2000s, but due to the lack of clarity on coastal regulations and permit requirements for tourists, especially foreigners, many of these plans were not initiated (Equations, 2008). Today, these regulations have been eased to facilitate the upcoming projects. For instance, in order to make it easier for foreign tourists to travel within the ANI, Restricted Area Permits (RAP) requirements were removed for 30 islands, including popular tourist destinations like Swaraj Dweep, Smith Island, Shaheed Dweep in 2018 by the ANI Tourism Department. Other efforts include improved inter-island connectivity between 5 tourist destinations, namely Long Island, Smith and Ross Islands, Swaraj Dweep, Baratang Island, and Port Blair under the Swadesh Darshan scheme of the Ministry of Tourism. Similarly, under the UDAN (Ude Desh Ka Aam Nagrik) scheme of the Central Government—which is a regional airport development and "Regional Connectivity Scheme")—seaplane operations will be set up for tourists traveling between Swaraj Dweep, Shaheed Dweep, Hut Bay and Long Island (PIB, 2019). In addition to these schemes, custom duties have been waived on the import of construction materials such as sawn timber, logs, cement, steel, sand etc. and food items such as vegetables, fruits, frozen meat, etc. from ASEAN countries. This is in line with efforts to attract foreign investment and international trade with neighbouring South Asian countries, under the “Look East Policy” of the Government of India (Giles, 2018).

Along with fisheries, tourism has been a major focus area in the development agenda for the ANI since the 1980s, with an aim to reduce dependence on forest resources such as timber and encourage the expansion of other sectors (Shanker, 2015). Over the next two decades, various master plans for tourism in the ANI were formulated by the Ministry of Tourism, the United Nations World Tourism Organisation (UNWTO) and later, the United Nations Development Programme (UNDP) in 1996. A carrying capacity report for the islands was prepared by National Environmental Engineering Research Institute (NEERI) in 2000, and a Perspective Plan for tourism was drawn up by the Department of Tourism in 2002 (Equations, 2006). In 2002, the Shekhar Singh Commission, appointed by the Supreme Court to assess the environmental degradation of the islands due to excessive logging, strongly recommended the implementation of “ecotourism” in the islands. Another drastic change to the local economy and therefore tourism came with the natural disaster that struck the islands in 2004. The earthquake of December 2004
and the resulting tsunami led to large-scale destruction across the islands and required rapid rebuilding of local infrastructure. It therefore became a priority to restore the economy and livelihoods of the islands. In order to attract domestic tourists to the islands, the Central Government started providing air travel to the islands at a discounted price, under the Leave Travel Concession (LTC) scheme for its Grade A and B employees (Office Memorandum, Government of India No. 31011/3/2005-Estt. (A)).

Earlier LTC was applicable only on ship travel. Various private airlines started their operations in the islands after 2005, which consequently led to a rapid growth in the number of Indian tourists visiting the islands (Chaudhry, 2008). Initially, 23 sites were shortlisted by the government for the promotion of tourism. Among these were Swaraj Dweep (then Havelock Island) and Smith and Ross Islands (Equations, 2008). With the rising number of tourists, concerns were raised about their impacts on the islands’ ecology. A 2006 report, “Equitable Tourism Options”, highlighted the problems that arose out of a shortage of public infrastructure for sewage, sanitation and waste management. The report also pointed out that unregulated tourism had begun in Protected Areas such as Smith and Ross Islands. Furthermore, the report critiqued the 2005 post-tsunami tourism plan put forward by the ANI administration for not adequately assessing the environmental impacts of tourism and investing insufficient effort in capacity building exercises for islanders to participate in and benefit from tourism. In a second report published by Equations et.al in 2008, the need for capacity building for the islanders was again highlighted, especially in protected areas where they could organise guided tours as well as support the administration in monitoring these spaces.

Ecotourism in the Andaman Islands

The land and seascapes of the ANI now attract lakhs of tourists each year. The islands are also important sites for the conservation of biodiversity. The latter can be attributed to its geographical position within two biodiversity hotspots (Indo-Burma and Sundaland) as well as a higher degree of endemism which is a feature of island systems. Consequently, the ANI administration seeks to adopt ecotourism models that promote tourism while also conserving the biodiversity of the islands. It issued ecotourism guidelines in 2015 (Extraordinary Notification No. 6 36/SCTECH/Ecotourism/2014/45) to ensure the protection of natural and cultural heritage of the islands. Ecotourism has been also incorporated into the planning documents of protected areas. For example, the working plan of Diglipur’s Forest Division and the draft management plan of the Rani Jhansi Marine National Park have a separate section on ecotourism guidelines. In practice, however, ecotourism still remains an unclear and debated concept. For instance, ecotourism is strongly emphasised by the NITI Aayog as a means for “holistic development and sustainable development” of the islands. This is a part of the IDA’s goals, which include the promotion of maritime economy, security, and conservation of the natural environment in ANI and Lakshadweep (Press Information Bureau, 2017). However, in order to ease the process for businesses investing in the tourism projects in the Andaman Islands, the government has assured “upfront support for obtaining CRZ
clearance and most other clearances (e.g., Environment (Protection) Act, 1986, State and Central Pollution Control Board) before the start of the construction” of the resorts (NITI Aayog, Preliminary Information Memorandum (PIM) 2018). But given the proposed large-scale construction of resorts (with 50 rooms on Aves Island, 70 at Smith Island and 220 at Long Island for now), along with the supporting infrastructure installations, these laws are likely to play a pivotal role in increased ecological impacts at these locations. The Coastal Regulation Zone (CRZ) notification, for instance, is significant as it takes into consideration aspects such as the spatial distance of the resorts from the beach and designing of the resorts. The draft CRZ 2018 doesn’t permit the construction of resorts or hotels in ecologically sensitive areas such as marine parks, mangroves, coral reefs, breeding and spawning grounds of fish, etc. It also prohibits the disposal of untreated effluents and solid waste into the water or on the beach. In addition, the CRZ also makes it compulsory to acquire clearances from the Tourism Department, Pollution Control Board, and the Ground Water Authority. Easing these restrictions can have negative effect on the environment.

Like ecotourism, sustainable development of the islands is also stressed in various reports. However, there is little clarity on what sustainability is. For instance, The concept development and detailed master plan report (2018) on ANI mentions: “The core principle for the project is to initiate development based on a sustainable approach to build a thriving maritime economy in the project islands. […] Customised outreach programs can sensitise tourists and local communities alike to the activities detrimental to the ecosystem as well as introduce them to sustainable practices.” The report also emphasizes the development of public infrastructure such as providing power supply, water supply and managing waste for the proposed projects in a “sustainable and eco-friendly manner”. The NITI Aayog, in their assessment, describe the current status of the facilities of sanitation, solid waste management and drainage as inadequate and unsustainable. However, the report doesn’t mention specific criteria that classifies the project as unsustainable or sustainable. Likewise, in the revised inception report of the concept development and master plan, the vision statement is “To develop Andaman and Nicobar Islands as an up-market island destination for eco-tourists through environmentally sustainable development of infrastructure without disturbing the natural ecosystem with the objective of generating revenue creating more employment opportunities and synergise socio-economic development of the islands.” The term “sustainable” is broadly used in these reports - this can either cover many aspects or leave out many.

While most of the existing literature has been critical of tourism and its effects, this study aims to move beyond a binary analysis of island tourism as ‘good or bad’ for the environment. The tourism sector in the ANI has created numerous livelihood opportunities for the islanders, and can be crucial in both supporting higher standards of living as well as preserving the natural environment (Sharma et al., 2018). This study, therefore, aims to explore the on-ground challenges of developing tourism in the Andaman Islands. It identifies the various players involved in tourism,
the nature and extent of their engagement, and the challenges faced in sustaining and managing the current levels of tourist influx. Therefore, apart from providing an overview of the current status of tourism in these islands, this report also identifies key action points that can help to address on-ground challenges and build a strong foundation for the long-term sustainability of the tourism sector.

Methods

The main objective of this study was to assess the effectiveness of public infrastructure services at managing current levels of tourism and identifying challenges that need to be addressed immediately. The study began with a scoping exercise where snowball sampling was used to identify the network of stakeholders involved in the tourism industry, the nature and extent of their engagement, and finally, how they provided infrastructural support for current levels of tourism.

This study was conducted from November 2018 to February 2019, primarily by means of semi-structured qualitative interviews with 110 informants at four sites: Swaraj Dweep, Diglipur, Smith and Ross Islands and Port Blair. At Swaraj Dweep, a total of 75 interviews were conducted, and 31 interviews in Diglipur, Mayabunder, and Smith & Ross Islands taken together. Diglipur and Mayabunder are towns situated in North and Middle Andaman, where the administrative offices for Smith and Ross Islands are located. Additionally, several resorts, restaurants, and tourist facilities are located in and around Diglipur, given its central location and accessibility. Interviews were also conducted in relevant government offices at Port Blair, with departments that play a role in overseeing the planning and implementation of tourism projects across the islands.

These interviews were conducted with range of stakeholders, including resort owners and managers, dive shops, local as well as foreign tourists, and islanders. We also interviewed officials from government departments such as the Tourism Department, Forest Department, Fisheries Department, the Andaman Lakshadweep Harbour Works, Port Management Board, State Transport Services, Tehsiland members of the Panchayat. In May-June 2018, we had conducted a study on the management of Marine Protected Areas at the same sites, which involved interactions with the local administration and islanders. These informants put us in touch with other officials, groups, unions, etc.. In addition, we scouted the study sites to interview the managers and owners at resorts, hotels, dive shops, souvenir shops, etc. Observations of their interactions with the surrounding space and people also provided insights into the nature of their relationships with other stakeholders and their level of participation in tourist activities. We also attended public gatherings and meetings which helped us observe interactions within the community and provided us with the opportunity to interact with different groups of islanders. For instance, we were present at the Gram Sabha meeting at Swaraj Dweep in November 2018, which was attended by islanders as well as government officials, to discuss schemes initiated by various government departments and to address challenges faced by
the people. At this public meeting, we informally interacted with several islanders, especially women, who attended in large numbers. Likewise, at Diglipur we interacted with islanders at community gatherings such as festival celebrations and sporting events in public spaces. We interviewed islanders from Smith and Ross Islands in the Diglipur market, where they would come every week to sell their harvest and to buy groceries, as this is the only market in the region. Government officials in Swaraj Dweep, Diglipur, Mayabunder and Port Blair were interviewed in their offices whereas tourists were interviewed at resorts, beaches and other public spaces.

The interviews lasted between 20 minutes to 2 hours, depending on the availability of the informant and the nature of the conversation. Informants were always informed of the objectives of the project, and interviews were conducted only after they gave their consent. The questions we asked were kept open-ended so as to gather a wide range of responses. The questions included their perceptions of current tourism in the islands, changes they have observed or experienced as a result of tourism in their locality, whether tourism has brought about any challenges or opportunities to their personal lives, etc. With reference to various systems essential for supporting tourism, we divided the questions according to themes such as transportation, supply of electricity, food and water, and public utilities such as sanitation, waste management, etc. Most of the participations readily agreed to answer our questions, and a few informants agreed to let us use a digital audio recorder. In both the cases, we took notes after the interview.
Section I: Tourism on Smith and Ross Islands

Diglipur is one of the northernmost large township of North Andaman island. It has a number of tourist attractions in its vicinity such as mud volcanoes, isolated beaches, Saddle Peak (the highest peak in the Andaman Islands), as well as the nearby Smith and Ross Islands that feature on most popular postcards of the islands. These islands are among the destinations selected by the NITI Aayog for high-end tourism projects and are set to undergo large-scale development to support premium luxury resorts.

Smith and Ross Islands are two picturesque islands connected by a sandbar. Both islands are different in terms of their legal classification: Ross Island is a wildlife sanctuary, while Smith Island is divided into a reserved forest area (85%) and revenue land (15%). One part of the Smith Island’s revenue land, Sagardweep village, is home to 600 people (Census, 2011). This settlement on Smith Island dates back to the 1950s, when land in North Andamans was allotted to refugees from Bangladesh, for agriculture and housing. However, within the next decade, many families on Smith Island abandoned their paddy fields and moved to Diglipur, where other members of their community were settled. This shift was because Smith and Ross Islands remained isolated, especially during bad weather and rough seas, when communication with people outside the islands was impossible (Roychowdhury, 2011). Additionally, by this time Diglipur had developed into North Andaman’s focal point for administration and offered better access to facilities such as drinking water and electricity (Murthy, 2005). However, considering the availability of agricultural fields on Smith Island, the government attempted another round of settlement -- this time with Ranchi families from the Chotanagpur plateau, who were hired to work for the Forest Department (Roychowdhury, 2011). Migrants from other states of the mainland India such as Kerala and Tamil Nadu also started settling here. Soon, encroachment into the forest area were being reported in the areas around these government allotted lands. Subsequently, in 2002, Shekhar Singh’s Commission ordered the eviction of people from these lands, including Smith Island. In 2008, 85% of the forest area (2106 ha) (excluding the revenue land of Sagardweep), was notified as reserved forest (Annexure-VII, Vol2, Working Plan Diglipur). As a result, this part of Smith Island is administered by the Forest Department while the Revenue Department is in charge of the rest. On the other hand, Ross Island is administered by the Forest Department from Diglipur and the Wildlife Division of Mayabunder. It was notified as Wildlife Sanctuary in 1987. Like Ross Island, other such small uninhabited islands in ANI were also declared protected areas around the same time in an attempt to protect their biodiversity.

A part of both Smith and Ross Islands are currently open to tourists. The Forest Department and the Wildlife Division have installed facilities such as eco huts and toilets for tourists on Smith and Ross Islands. The following sections elaborate how tourism developed here and the challenges and opportunities for the tourism sector in this region.
Map showing the location of Smith and Ross Islands and Diglipur in the Andaman Islands

Detailed map of Smith and Ross Islands indicating the Sagardweep village in Smith Island (the brown extent, Sand bar connecting Smith and Ross Islands and Aerial Bay jetty in Diglipur from where all the fiberglass boats for tourists and dughlis for locals leave for Smith and Ross Islands
Smith and Ross Islands connected by a sandbar

Board installed on the sand bar indicating the beginning of Ross Island
Development of tourism in and around Smith & Ross Islands

Tourism on Smith and Ross Islands picked up in the 1990s when tourists, mainly foreigners, began to venture up north to visit the secluded sandy beaches. Indian tourists followed soon after the Leave Travel Concession (LTC) scheme conditions were relaxed for Grade A and B government employees, and air travel operations improved in the islands. Smith and Ross Islands were also a popular recreational site for islanders in nearby areas. However, restrictions began to be imposed on visiting these two islands as the concern for safeguarding its natural environment grew. The Forest Department has installed basic facilities for tourists such as drinking water, changing huts, restrooms, etc. within the reserved forest area facing the beach. But Smith Island beach is a turtle nesting site and hence, visitors area allowed there only until 4 pm. Therefore, tourists stay in the nearby town of Diglipur (approximately 12 km from Smith Island).

Smith and Ross Islands are one of the four selected sites for setting up of luxury resorts as a part of the NITI Aayog’s “holistic development project” for ANI. The proposed luxury resort on Smith will be set up on 25 hectares of revenue land, located in Sagardweep village. This proposed project will have a resort with 70 rooms, tree houses, and tents. The project is also expected to have supporting infrastructure such as desalination plants, sewage treatment plants, solar power plants, a floating jetty etc. All the infrastructure for the project will be set up through Public Private Partnerships, under which the private party will be responsible for designing, building, and financing the operation of the project. Additionally, in the clarifications to the tender queries (released by the NITI Aayog), the government has assured that CRZ clearance will be given for the construction of any supporting infrastructure. As of now, the selected site has been surveyed and tenders have been rolled out by the ANI administration.

*Image: Turtle hatchery installed by the Wildlife division at Smith Island beach*
Opportunities provided by tourism

At present, very few local entrepreneurs in Diglipur derive direct benefit from the tourism sector. Only a small proportion of tourists visit this area, given its distance from Port Blair (300 km approximately) and the lengthy travel time (minimum 12 hours). A hotel owner described to us the current state of tourism in Diglipur: “Currently the tourism sector is inefficient here. I run a small hotel, no one comes here. Only a few tourists come here to stay. I’m actually thinking of closing this business and renting it to someone. [...] I also own a general store here to sustain myself.” Tourists who do visit Diglipur stay only at a few select resorts and spend only 2 to 3 days on an average here. The other hotels and restaurants remain empty for most months of the year. However, islanders here, especially the youth, are interested in investing and working in the tourism sector. So far, they have found some employment in the resorts at Diglipur. In the past, Pristine Resorts (Kalipur) had also conducted workshops and training programs in hospitality services for islanders in Diglipur. However, such capacity building programmes are no longer conducted here, and instead are limited to Port Blair. Without adequate confidence and skills to start up their own enterprises, most islanders have resorted to selling their land. According to the tehsil office of Diglipur, about 90% of the land licenses or pattaon Smith Island have been sold to buyers from the mainland. Islanders are readily selling their land primarily because of the dramatic increase in the price of land, driven by the proposed projects. A few residents and businessmen are also hoping that the new resorts will attract more tourists, which will help them tap into the tourism sector. In an interview with a resident of Smith Island, who works in Diglipur, he said that “while most of the people have sold their land in Sagardweep (Smith Island), my family has retained our land there so that we can start our small place for tourist accommodation, after the government resort opens.”

Taking ideas from the business models in other popular tourist destinations like Swaraj Dweep, businessmen in Diglipur have found new avenues for investment. For instance, a businessman in Diglipur described how he started his business: “I started a business to rent bikes and cars. This is a very profitable business in Havelock Island (now Swaraj Dweep), so I decided to start it here... I have also hired local drivers for the cars which take the tourists around all the tourist hotspots here, as well as I also offer pick and drop facility from and to the Port Blair. [...] Tourists come here on tour package and can cover entire Diglipur in a day, depending on how much time they spend at one place”. Further, to promote livelihood opportunities in tourism, the NITI Aayog has made it compulsory that “60% of the manpower should be locally employed”, as per its response to the pre-application queries on the RFQs for the high-end resort projects (p.23). Tourism is being used as a main channel for employment generation and growth on the islands (NITI Aayog, 2018). This is attributed to the “limited scope of development” because of the “ecological sensitivity of the islands” (NITI Aayog, 2018). On ground, however, most of the projects for island development are focused on developing tourist facilities whereas the residents of Smith Island and Diglipur are increasingly frustrated by the state of housing and sanitation, road development, provision of gas, etc. and feel that they are
consistently left at the margins of these discussions. The next section, therefore, elaborates upon the how public infrastructure for tourism is presently managed in Diglipur as well as Smith and Ross Islands, and the challenges faced by a range of tourism stakeholders.

Infrastructural facilities built by the Forest Department for tourists at Smith and Ross Island beach
Challenges in managing tourism

Connectivity

Difficulties with transport and telecommunication are the two most common issues faced by locals as well as tourists in Diglipur. From Port Blair, Diglipur can be reached by either land or sea routes. In the former case, people have to use the Andaman Trunk Road, a poorly-maintained single-lane road of 300 km that connects Port Blair to Diglipur. This entails a long and uncomfortable 12-hour journey. The road has also been controversial as it cuts across the Jarawa Reserve and there are campaigns for its closure. The State Transport Services (STS) buses and some private buses offer affordable options for locals and budget travellers. The buses ply between Port Blair and Diglipur several times a day. But most tourists prefer to travel by taxi, which can cost up to Rs. 25,000 for a single trip. On the other hand, ferries to Diglipur are more affordable than taxis and more comfortable than buses, but they are operational only twice a week at most, during favourable weather conditions. In addition, information on bus and ferry schedules is not easily accessible to tourists.

This, combined with the patchy phone connectivity (which hinders them from contacting local travel agents or resorts), makes travel to Diglipur a confusing process. During an interview with a foreign tourist who was visiting Diglipur, he described to us the challenges he faced when traveling: “There is no information available here. We don’t know when the buses leave, if buses go where we want to go, if we can get a chopper, whether we can take a ferry, etc. We don’t know about the weather, about transport, anything because there is no information online, we can’t access the internet here, and if we ask people they just say ‘maybe’. So it is very difficult to move anywhere and do anything here.” Due to this lack of information as well as the weak mobile network, very few tourists make the trip to Diglipur.

Within Diglipur also, tourists have to rely on significantly more expensive private transportation services, as information on public transportation is scarce and buses/ferries do not connect all tourist destinations. For instance, to reach Smith and Ross Islands, which are about 5 km from Diglipur, tourists have to hire private boats which can cost up to Rs. 5000 per trip. Additionally, most tourists are not aware of regulations (such as restrictions on swimming, water sports, and visits to other islands) prior to their arrival and have to make last-minute changes to their itinerary. Similar to Swaraj Dweep, the poor state of the telecommunication network also hinders the functioning and administration of tourist ventures in and around Diglipur. While most resorts here have offices in Port Blair and the mainland to handle online functions such as bookings, officials and other islanders depend mostly on the phone network and the postal service for any communication. Residents felt the phone network in Diglipur has seen some improvement in the last few years. In contrast, Smith and Ross Islands do not have any mobile network coverage. Boats are the only means of transportation between Smith Island and Diglipur, and post is also sent across by boat from Diglipur.
Moreover, since all government offices and the markets are based in Diglipur, residents of Smith Island have to regularly come to Diglipur conduct their daily business or buy groceries or sell their agricultural produce. Hence, their everyday life is completely dependent on the smooth running of boats between Sagardweep and Diglipur and gets disrupted whenever there is rough weather. While this service by *dunghis* was initially open for both tourists and islanders alike to visit Smith and Ross Islands, now only fiberglass boats are allowed to provide transport service to the tourists. In the wake of the increasing potential of tourism, the prices of transport have skyrocketed. For instance, even though very few tourists visit Smith and Ross Islands and for only 2 hours each, the cost of visiting these islands has shot up to at least Rs. 4000 for each boat carrying 5 tourists in it to the island. While the tourists are able to afford the price as a one-off experience, locals are now unable to visit the islands that used to be their favourite picnic spot.

**Supply of materials**

Diglipur, and Smith and Ross Islands are primarily agricultural regions, which used to supply their surplus to other parts of the ANI. However, with the rise of tourism in the ANI, local produce has become insufficient and now additional supplies are brought from the mainland to meet the increased demand. At present, rice, arecanut, and coconut are the main crops cultivated in Diglipur, and Smith and Ross Islands.

Items such as fruits, vegetables, packaged food items, and other manufactured products are transported from Port Blair by road. Supplies in *dunghis* from Port Blair to Diglipur are very infrequent because most private boat owners in Port Blair have small vessels that cannot sail such long distances. The government cargo ferry, on the other hand, carries...
large shipments, but it takes days to load the cargo and can result in the delayed arrival of goods in Diglipur. Hence, road transport is the quickest means of transporting supplies to Diglipur. However, there is no provision for sending these supplies to Smith Island. Therefore, residents of Smith Island have travel to Diglipur to buy them. As for supplies from the mainland, these goods are first shipped to Port Blair and then transported to Diglipur. This long journey not only limits the transportation of perishable foods but also increases costs drastically. In an interview in Diglipur, a vegetable hawker described how the price of fruits and vegetables multiplies during transportation: “Everything that is sold in the market depends on the transport and weather. Last week there was cauliflower because that was ordered from Chennai. But it costs so much to bring it by flight, then by ship to Mayabunder, then by truck to Diglipur. By the end of it the price is almost 3 times what it is on the mainland. The cauliflower was selling at Rs. 200 per kilo. On the mainland how much do you get it for? Rs 80. Who will buy cauliflower at Rs 200 per kilo here? That’s why it’s no use ordering these vegetables.” Furthermore, he explained how weather affects the transportation of these items, which in turn affects its quality: “The sealed packets of spices come from Kolkata. I have to get them by ship, and if the weather is bad then the ships don’t run so it all depends on the weather. The ship goes to Port Blair, then from there we get it by truck or by ferry to Mayabunder, and the dunghibrings it to Aerial Bay. It takes a long time and it depends on the weather so sometimes the vegetables go bad.”
**Waste Management**

The panchayats in and around Diglipur are responsible for waste collection and disposal within their jurisdictions. Presently, all the waste from these panchayats is dumped, without any segregation, in a single dumping yard in Diglipur. But a few resorts have developed their own mechanisms of waste management. For instance, Pristine Resort has a vermicomposting facility and Turtle Resort, a government-run enterprise, segregates plastics before handing over garbage to the municipal collectors. In addition, some residents who live near the dumping yard, burn and then use the waste as manure for their agricultural fields.

Smith and Ross Islands, on the other hand, have no facility for the disposal of waste (NITI Aayog, 2018) and hence waste is burnt. The Forest Department has installed dustbins in the tourism zones of Smith and Ross Islands, but struggles with the disposal of this waste. At present, the collected waste is either burnt or sent to Diglipur, if boats are available. Additionally, a considerable amount of waste from neighbouring South East Asian countries also washes up on the shores of these islands during high tide. If these are bamboo stems or wooden logs, the Forest Department collects and reuses them in construction work. However, the Forest Department and the Wildlife Wing at Smith and Ross Islands are seriously understaffed, and the disposal of beach debris is not as much of a priority for their staff as regular management activities such as the regulation of tourism, maintenance of turtle hatcheries and monitoring reserved forest areas for any illegal activity.

*Waste washed up on the Smith and Ross Island beach*
Water supply and sanitation

For drinking water, both Diglipur and Smith Island rely on groundwater, supplied by pipeline connections to households. On Smith Island, drinking water is available only in limited quantities. In the dry season, this problem intensifies as wells dry up. To meet water requirements for other purposes such as sanitation, untreated water from forest streams is used, which is also supplied through pipelines. The island lacks adequate facilities for treatment of wastewater. This could pollute the groundwater and further reduce the availability of drinking water, as well as affect the ecology (NITI Aayog, 2018).

Recognising these existing challenges, the government has made it compulsory for private firms to install supporting infrastructure such as desalination water treatment plants, Sewage Treatment Plants, Diesel Generator sets, etc. in the proposed high-end resorts on Smith Island. This is also the case with existing resorts in Diglipur, which are also required to have their own STPs and DG sets. However, logistic difficulties has been a major challenge for the resorts. For instance, it is difficult to obtain construction material to these sites because of the distance from Port Blair and the limited transport facilities. This is a challenge that government has been also facing for several years when attempting to set up any public infrastructure. Additionally, another aspect which the proposed development plans have to consider is striking a balance between the scale of operation and available resources in the islands.

Electricity

Diglipur gets its electricity supply from the Kalapong dam, located within the district. On Smith and Ross Islands, electricity is supplied from a centralised diesel generator set during the day and supply is cut off during the night time (NITI Aayog, 2018). Power supply becomes even more erratic during the monsoons, in both Diglipur and Smith Island.

Current plans for sustaining tourism

A majority of the high-end tourism plans have been initiated through the NITI Aayog, which has emphasised the potential of transforming Smith and Ross Islands into "the next Singapore or Maldives." This is being carried out by consultants and business owners in the mainland, who now own land on Smith Island. According to an official in the local administration, only these consultants and organisations are involved in planning and decision making, and there is little discussion on the involvement of islanders and the local administration. At present, the local administration is unable to make preparations to scale up the capacity of public infrastructure in accordance with the plans of private players. For instance, to match the scale of high-end tourism, the provision for various supporting mechanisms such as drinking water, increasing staff for patrolling the beaches at night, setting limits on the number of boats plying, etc. are important measures to be considered. These issues related to public infrastructure, if remained unaddressed by ongoing plans, can not only lead to poor management of tourism but can also affect the environment negatively.
Key action points

In order to address the above-mentioned challenges, the following action points were identified, along with the potential agencies that can undertake these activities:

- Developing better signage and public information systems on bus and ferry routes and their timings — Tourism Department, State Transport Services, Shipping Services, Directorate of Information and Publicity

- Clear description of activities allowed on various beaches need to be made available at resorts and websites — Resorts, Tourism Department, Forest Department and Wildlife Department

- Public consultation meetings, where islanders are given adequate opportunity to voice their opinions on the state of tourism development plans. In a previous meeting by a MHA committee in 2017, over the encroachment and compensation issue in Mayabunder, one of the concerns was the lack of opportunity given to the islanders to speak up and also inadequate management of the meeting space to accommodate the large number of people who came to attend it (Andaman Sheekha, 2017) — Public administration, tourism project proponents.

- Conducting tourism related capacity building workshops and training sessions — Tourism Department, Private resorts

- Setting up affordable tickets for islanders to visit Smith and Ross Islands— Boat Association, Panchayat.

- Regular beach clean-ups involving tourists and local volunteers, which can get more people involved in the care and maintenance of the beach— Forest Department, Wildlife Department.
Section II: Tourism on Swaraj Dweep (Havelock Island)

Swaraj Dweep, located just north-east of Port Blair within the Ritchie's Archipelago, is one of the most popular islands in the Andaman and Nicobar group of islands. It hosts the well-known Radhanagar Beach, which in 2004 was named “Asia’s most beautiful beach” by Time magazine, and has since attracted large numbers of domestic and international tourists. Over the years, what was once a backpacking destination for low-budget travellers has slowly grown into a vibrant (and perhaps cacophonous) tourist location that caters to a variety of visitors such as SCUBA divers, government employees, backpackers, upper middle-class families, and working-class migrants looking to be a part of the ever-growing tourism industry.

Swaraj Dweep (Havelock Island)

Swaraj Dweep is one of seven inhabited islands in the South Andaman district, which is also the most populated district in the ANI. Originally inhabited by the indigenous Great Andamanese, and known to them as Thilalarsiro, the island of turtles, this area was occupied by non-natives only during the 18th century when John Ritchie, a British marine surveyor, was commissioned to explore the so-called unknown islands off the east coast of India. The group of islands east of the main South Andaman island was therefore named after him as Ritchie’s Archipelago, and Havelock (named after a British general who was instrumental in the suppression of the Indian Mutiny of 1857/First War of Indian Independence) is the largest of these (Bhattacharya, 2018; Census of India, 2011). During a recent visit by Prime Minister Narendra Modi, the island was renamed as Swaraj Dweep to pay tribute to the freedom fighter Subhash Chandra Bose, who in 1943 had hoisted the Indian flag at Port Blair and declared them free of British rule (but this turned out to be a premature declaration) (Bhardwaj, 2018).

With a population of 6,315 residents (Census of India, 2011), the island is now home to a mix of residents from several states of the Indian mainland. After Independence in 1947, several communities began to migrate to settle on this island, when the government began to initiate reclamation projects. In 1961, Bengali refugees from East Pakistan (now Bangladesh) were settled in Swaraj Dweep, and each family was allotted a 5-acre plot of land for cultivation and given basic facilities for settlement (Roychoudhury, 2011). Forest land was cleared to make way for cash crops and horticulture, and the produce was sold in Port Blair. Soon after, a fishing community from Andhra Pradesh migrated here and began to catch and barter fish. Therefore, agriculture and fisheries were the two main industries upon which the island’s livelihoods were based (Chandi et al, 2012). Since then, Swaraj Dweep has seen a drastic growth in tourism, which has now established itself as the primary source of income.

Tourism began here in the 1990s, and Dolphin Resort was the first facility (government-run) that was built for tourists. However, as mentioned earlier, the Andaman and Nicobar Islands suffered from a devastating loss of lives, infrastructure, and natural resources during the 2004 tsunami. To bring the economy back on track, the Central Government introduced several schemes to promote tourism in this region, the main one being the
Leave Travel Concessions that were relaxed for the Grade A and B government employees and their families, to travel to the islands. Presently, the government is also working towards getting Blue Flag certification (an internationally recognized eco-labeling program) for Radhanagar beach, to increase its visibility in the world beach tourism circuit.

**Administration of Swaraj Dweep**

Swaraj Dweep falls within the Port Blair tehsil. It is divided into two panchayats: Shyam Nagar and Govind Nagar. The Shyam Nagar panchayat includes Radhanagar Beach, Elephant Beach, and two settlements -- Shyam Nagar and Krishna Nagar. Swaraj Dweep has a single dumping yard for wastes; this is also located within the Shyam Nagar panchayat. The Govind Nagar panchayat contains the island’s central market, the main cargo and passenger jetty, and Kalapathar beach. It also the stretch between Beach No. 1 and Beach No. 7, which has the maximum number of resorts - right from small-scale bamboo huts to large luxury hotels. This short coastline is the primary site for all diving activity on Swaraj Dweep, including popular sites such as Nemo Reef, Slope, and the Wall which are located just off the shoreline.

Most of the popular tourist sites on Swaraj Dweep, including Radhanagar Beach and Kalapathar Beach, fall under the jurisdiction of the Forest Department as they are categorised as Reserved Forests. Additionally, the Rani Jhansi Marine National Park includes most islands surrounding Swaraj Dweep and therefore access to most dive sites along the boundaries of the MPA are controlled by the Forest Department. As a result, the Forest Department plays a key role in influencing tourism as well as conservation.
Opportunities provided by tourism

Local participation

During the years of British occupation, agriculture and fishing were the primary sources of livelihood among islanders on Swaraj Dweep (Chandi et al, 2012). Now, this has been replaced by employment in tourism-related activities. The tourism industry on Swaraj Dweep has brought with it a number of employment opportunities for locals with different levels of education. These jobs, be it selling souvenirs such as seashells at the beach or working as staff at a resort, offer relatively high incomes. Our informants therefore expressed a preference for working within the tourism industry. For instance, one informant explained that despite earning a Bachelor’s degree in Political Science from Port Blair, he earns a significantly higher income per season by selling souvenirs to tourists on Kalapathar beach than he would have by taking up a government job. He also said that employment in the public sector or other industries is far more inaccessible due to limited availability of jobs. Local landowners have been starting their own small-scale resorts and businesses. One family pointed out that small, local businesses such as theirs opt for building resorts with low-cost infrastructure using tin sheets and bamboo, as they don’t have the same resources and capital available to them as investors from the mainland. For such families, these small resorts are their primary source of income and their livelihoods depend upon the volume of tourists and the quality of the environment. Another land-owner we interviewed pointed out that mainlanders who start resorts here are less vulnerable to changes in the quality of the environment as they have alternative sources of income on the mainland, and that the mainlanders also have the resources and political support to relocate their business elsewhere if needed. Locals have also taken to other supporting roles in tourism, such as becoming drivers for private travel agencies, running boats to tourist beaches, setting up restaurants, etc. The drivers of vehicles call themselves “agents”, and earn an extra commission by directing tourists towards associated dive shops and resorts. However, these commissions are self-declared by these agents and frequently lead to disputes with the dive shops or resorts.
Mainlander participation

Businessmen from the mainland are taking notice of the island’s potential for tourism, and land on Swaraj Dweep is being sold for up to Rs. 8.5 crore per acre. Real estate agents as well as government officials prefer buyers from the mainland, and cite its proximity to South East Asian destinations and the potential for increased tourism as the primary reason for such investments (NDTV, 2011). The locals we spoke to said that they are open to selling parcels of their land to outsiders for the development of large-scale resorts in the hopes of securing a well-paid job. Therefore, a growing number of upper middle class, well-connected families from the mainland are buying land on the island with the intention of starting resorts.

Improvements in connectivity and mobility

In a 2012 study, informal interactions with elderly settlers revealed that before independence, islanders on Swaraj Dweep had to deal with highly infrequent ferry services, erratic access to electricity, a limited number of shops with few products for sale, and insufficient access to education (Chandi et al, 2012). Today, the tourism industry has brought with it accompanying improvements in network connectivity, a higher frequency of ferries running between islands, a growing number of stores and supply of material resources, as well as access to higher education due to better mobility. An improvement in connectivity has also meant that internet services and networking through social media are now not uncommon. However, while all of these services and access to facilities like network, transport, and education have significantly improved in the past few years, they still prove to be far from sufficient.

Challenges in managing tourism

Despite the opportunities it has brought with it, the tourism industry on Swaraj Dweep has also added pressure on the island’s limited resources. The rate at which the supply of infrastructure and facilities has been growing is yet to meet the growth in demand caused by an exponentially increasing number of visitors and inhabitants on the island.

Waste management

According to our informants, waste disposal is one of the biggest challenges faced by stakeholders on Swaraj Dweep. A member of the Govind Nagar Panchayat specified that the department faces a shortage of labour, and is therefore able to collect waste only from select public spaces such as the vegetable market, the school, and the hospital. Other landholdings need to arrange for their own transportation of waste to the dumping yard. This means hiring private waste collection vans, which cost between Rs. 500 to Rs. 1000 per trip. The managers of smaller resorts said they prefer to burn their waste as the quantity of waste they generate is not enough to make hiring a collection van cost-effective. The waste that is collected, whether by the panchayat or private vans, is sent to a single dumping yard located in Shyam Nagar. Accumulation of garbage over several years has led to the gradual overflow of this dumping yard. According to a member of the Shyam Nagar panchayat, this overflow causes significant health and sanitation concerns for the residents of the neighbouring settlement. With only so much land available on the island, expanding the dumping yard or creation of another is not a viable option.
In an effort to encourage recycling, the gram panchayat recently acquired a plastic-crushing machine from the Public Works Department, and is currently working on building the infrastructure needed to install and run it. However, they said they were waiting to acquire further information on the capacity of the crusher, time required for its installation, and further steps to deal with the plastic waste after crushing.

The waste collection truck at the vegetable market in Swaraj Dweep

The collection and disposal of waste has been a pressing issue in the last decade. Similar difficulties in the management of waste were also reported in a study conducted by Chandi et al in 2012, at Swaraj Dweep. Additionally, the north-western monsoon winds also wash up large quantities of floating debris and garbage from other south-east Asian countries. Plastic packets, rubber tires, and glass bottles with tags from Thailand, Indonesia, Malaysia, and the Philippines have been spotted on the shores of eastern islands such as Swaraj Dweep and Smith and Ross (Das et al, 2016). This additional pressure, of managing waste that is washed up from other countries, is further straining the administration’s limited resources and ability (Bijoor, 2019). A forest ranger reported that despite sending teams to clean up the beach on regular intervals, the amount of waste that is washed up by currents cannot be collected by these teams alone. Additionally, even if it were to be collected, there is insufficient space available to dispose of this waste. A handful of citizens on Swaraj Dweep have taken some initiatives to collect and transport waste for recycling. A group of locals working in tourism ventures on the island, have collaborated with the Makruzz private ferry service to collect and transport recyclables from Swaraj Dweep to Port Blair. However, it is difficult for such initiatives to pick up momentum without support and collaboration from various government bodies and local stakeholders.
Supply of resources

Swaraj Dweep relies on imports for almost every essential supply that its residents require. This includes vegetables, fruits, water bottles, gas cylinders, fuel, etc., which are all brought to this island from Port Blair.

With the conversion of a majority of the agricultural land on the island into commercial property for tourism, local agricultural production appears to have declined. At present, only a limited amount of rice, coconut, and arecanut are grown locally on the island. Vegetables, fruits, and other food products are imported from the mainland via Port Blair. Only seafood is sufficiently sourced locally by fishermen, a part of which is also exported.

These imports are transported largely by means of wooden dunghis that ply between Sippighat (Port Blair), Swaraj Dweep, and Shaheed Dweep. The transport is carried out by *dungis* rather than by ship because the latter is a more expensive option. Resort owners on these islands have informal contracts with dunghis owners for transporting their cargo from Port Blair. Even so, the transportation costs are significant, and hence the prices of all commodities are higher on Swaraj Dweep, not only for tourists but also for locals. Reliance on these wooden boats also means that the supply system is vulnerable to weather conditions, as the boats are unable to ply during cyclones and can capsize in choppy waters. As a result, the supply of materials is particularly erratic during the monsoon months and many resorts have to maintain a backup stock of food and water. The residents we spoke to also complained that essentials like LPG cylinders take
exceptionally long to be replaced because of this transportation bottleneck. Additionally, these dunghis have a limited capacity, and multiple trips need to be made between Swaraj Dweep and Port Blair for the refilling of LPG cylinders, which delays the supply even further. A member of the Shyam Nagar panchayat claimed that “it takes up to 2 months to get cylinders [here], and by the time we distribute them to each house it is 3 months... The weather is also so bad, there is no kerosene, no cylinders. Commercial places get cylinders, businessmen get them. They have their own boats. We (panchayat) don’t even have boats. A dunghi can carry maximum 100 cylinders, and here we need at least 3000. So it gets delayed and takes almost 4 months by the time we finish distribution.”

Public infrastructure and services

Water

Both residents and resorts use bore wells and ring wells to obtain water for bathing and washing, whereas the groundwater in Swaraj Dweep is unfit for drinking because of its high iron content and salinity (Sharma & Kar, 2013). Therefore, homes and smaller resorts use filtered RO water for consumption, while resorts import bottled mineral water through Port Blair. The government also supplies filtered drinking water through pipes, but our informants claimed that this supply is irregular and therefore unreliable as a primary source.
Electricity

Electricity on Swaraj Dweep is supplied through a DC-set generator installed by the government, which residents rely on. While resorts rely largely on the same supply, they also have backup diesel generators installed on their properties. Given the increasing number of inhabitants on the island, the demand for electricity has naturally shot up and now exceeds the supply. While the government has requested all resorts to switch to their generators for a certain number of hours daily, the regulation and implementation of this practice remains unchecked, leading to frustration among smaller resort owners. This is evident in one such resort owner’s description: “The government has asked all resorts to stop using government supply electricity between 6pm and 10pm and run only on the generator, so that electricity can be saved and it will be enough for everyone. But there is nobody to check this, so resorts still use government electricity. That’s why there are so many power cuts still.” This unreliable power supply can also hinder the operation of other public infrastructure such as the plastic-crushing machine. Public offices such as the gram panchayat also do not have power backups. Therefore, the issue of providing adequate electricity requires serious attention.

Network and connectivity

The mobile network is patchy, and the internet connection is erratic and limited to only a few businesses that can afford it. This makes communication within the island itself difficult, and even more so across islands, or with the mainland. Inadequate mobile and internet connectivity makes it difficult for both the tourists and the resorts to coordinate bookings and payments. As a result, larger resorts have had to set up offices in Port Blair or on the mainland to handle these online functions, while smaller resorts depend on agents for bookings. Some resorts with a higher purchasing power have leased expensive private LAN cables, which allow for exclusive internet connection. One such resort manager told us that he has to pay nearly Rs. 40,000 for 10 GB of internet through private LAN cables, which would otherwise only cost a few hundred rupees on the mainland. The intermittency of network is, however, not just a hindrance to tourism-related processes, but also causes significant difficulty in carrying out basic administrative work because it slows down communication with other departments, whether within Swaraj Dweep or on other islands. Even if any one office acquires access to the internet, most others don’t, so they prefer other mediums such as fax or registered post. A member of the Govind Nagar panchayat explained: “We still use letters for communication. There is no point making [communication] digital because the bandwidth is so bad. Even if we have internet here at Havelock, other places in Andaman don’t and so you can’t reach them unless you send a fax or a letter. So we just use letters as a common medium.” This means that inter-departmental communication on the island is significantly slower as compared to the mainland, and basic processes often get delayed. Such a delay makes normal activities such as organizing a meeting, or using mobile network in remote areas for responding to emergencies all the more challenging. While a project for the installation of an undersea telecom cable has been initiated, it is unclear when this project will be completed and the effects seen on Swaraj Dweep (NEC, 2018).
Transportation

Road transportation between various sites on the island takes place through state transport buses, auto-rickshaws, shared jeeps, private taxis, or rented motorbikes/bicycles. Our informants expressed a preference for using buses due to their affordability, but also pointed out that these bus services are infrequent and do not connect many settlements such as those beyond Kalapathar and Krishna Nagar. Government buses also serve as school buses and are the only option for the inhabitants of these settlements as there are no dedicated school buses. A representative at the State Transport Service (STS) office of Swaraj Dweep explained that most tourists who visit the island either hire private taxis or rent motorbikes to commute between tourist destinations. Given that the population of islanders is quite small and scattered, and that tourists rarely use the public bus service, the STS department said that they have not felt the need to extend bus routes or increase the frequency of services for many years now.

Furthermore, no public office is provided with a vehicle for official use, and this often compromises their ability to perform tasks that require quick mobility since they are bound by the availability and timing of public transportation. For example, an administrator we spoke to is also in charge of emergency response at Swaraj Dweep and he does not have an official vehicle. If he uses his personal vehicle to respond to an emergency call, such as attending to a large fallen tree or inspecting the boundaries of a new property, he has to bear the cost of travel himself and is required to keep his personal vehicle available at all times.

A new State Transport Bus being fitted together at Swaraj Dweep
Legal disputes

Due to the boom in the tourism industry, the value of land on Swaraj Dweep has shot up significantly. Land that was once difficult to access and largely agricultural, is now a prime location for tourists and tourism-related businesses. This, in turn, has led to a growing number of land disputes. Within families, disputes arise between siblings when deciding upon the division of inherited land, or decisions about the ownership and use of a piece of land that has previously been cultivated by the family but is now worth lakhs if sold or developed into a resort.

Simultaneously, there have also been disputes between islanders and mainlanders in instances where the latter buys over local land - locals report feeling that they have been taken advantage of as they are often not as well-educated as the mainlanders. In most cases, the latter have better political and economic support and are therefore able to negotiate for comparatively low prices.

Social effects of tourism

The sale of alcohol in wine shops was banned on the island a few years ago, one of the main reasons being that the women on the island reported high rates of domestic violence and rash driving. Hence they had demanded the closing of wine shops. Ever since, alcohol has only been sold in 2-3 bars located inside resorts, at prices significantly higher than the MRP. This made it unaffordable for locals to buy regularly. However, as the tourism industry grew, the proportion of mainlanders residing on the island increased along with the tourists, who together have demanded access to cheaper alcohol. This high demand led to the reopening of the ANIIDCO wine shop on the island in November 2018.

The women of Swaraj Dweep discussing the issue of domestic violence and the reopening of the wine shop at the Gram Sabha meeting
Local women fear the onset of a subsequent rise in violence, and this was one of the main concerns raised in the Gram Sabha meeting conducted at Swaraj Dweep in November. Another issue raised in this meeting were that instances of POCSO, especially pedophilia, have been on the rise in these communities and are amongst the primary concerns of both the women’s groups and the local police. This could perhaps be attributed to interactions with tourists and needs both careful scrutiny and sensitive interventions.

**Stakeholder engagement and capacity building**

At present, there are very few opportunities for islanders to engage actively with policies that affect them. For instance, although a large proportion of the residents at Swaraj Dweep are engaged in tourism-related activities, even when capacity building exercises and meetings are conducted for projects such as the Blue Flag Certification program, they usually only involve big resort owners as key stakeholders. Training programs for locals and small-scale businesses is restricted to the occasional occupation-related workshop, such as for training as mechanics or coconut harvesting, which are conducted by the Industries Department and Agricultural Department respectively.

![Radhanagar beach, a site selected for Blue Flag Certification](image)

**Tourist awareness and participation**

Swaraj Dweep attracts masses of Indian as well as foreign tourists every year mainly for SCUBA diving. However, newly enforced restrictions on boat permits and access to dive sites located around RJMNP have taken tourists by surprise. A group of tourists who came to Swaraj Dweep with the intention of staying for months to do the diving courses, said that they were made aware of these restrictions only upon their arrival and were
therefore unable to do most of the diving that they had planned for their trip. Additionally, the tourists we interviewed also complained about the high costs of accommodation, food, and travel on Swaraj Dweep. They also expect better network and come to the islands unaware of connectivity issues. This translates into an unpreparedness for the cash economy that prevails on the island, as tourists expect to be able to pay by credit cards but instead, find themselves short on cash and unable to pay for services. One dive instructor we spoke to also pointed out that when ATMs run out of money, or are not operational for some reason, residents and tourists alike feel helpless as they are unable to pay for food and services in cash and often have no other method of payment available.

Many of the tourists we interviewed also raised concerns about the garbage and crowds at popular beaches such as Radhanagar, complaining that there are now too many people flocking to these destinations and little efforts being made to keep the beaches clean.

The tourism industry in the Andaman islands looks at tourists as passive consumers of tourism-related services and not active participants in the business. Therefore, there is little consideration of tourist experiences in terms of the availability of information online as well as preparedness for the status of transportation and communication, cultural and environmental sensitivities of the islands, etc. Therefore, planning tourism that recognises tourists as participants in the growth and functioning of tourism is essential in ensuring that tourist experiences are positive and tourist ventures receive better reviews.
Key action points

While tourism on Swaraj Dweep faces several challenges, tourism as an industry cannot be disregarded. In the 2012 SocMon survey conducted to evaluate socio-economic conditions on the island, locals on Swaraj Dweep themselves valued tourism, education, water, and transport as their most important development needs (Chandi et al, 2012). Therefore, efforts need to be focused on improving the sustainability of tourism on the island.

In this study, a thematic analysis of the interviews conducted with a range of stakeholders shed light upon the various challenges faced by each; some were common across groups and others unique. These interviews also gave us insights into potential interventions that can be undertaken to address some of these challenges. They are as follows:

- Identification of gaps in the waste management system, and developing a more cooperative and accountable system. – *Shyam Nagar and Govind Nagar Gram Panchayats in concert with resort owners and dive shops.*

- Conducting briefings for tourists upon their arrival to resorts and the tourism information counter at the jetty, with an aim to sensitize them about local ecology and responsible tourism. – *Forest Department along with Tourism Department.*

- Updating websites and other outreach material so as to keep tourists informed about the status of dive sites and diving restrictions, network availability, and the need for carrying cash due to the unreliability of credit and online transactions on the island. – *Tourism department; Dive shops, resorts, and travel agencies.*

- Capacity building exercises that involve local groups such as shopkeepers, small resort owners, and self-help groups in decision-making processes. – *Public administration in association with the Andaman Tour Operators, Self-Help Groups, and the Andaman Hoteliers’ Association.*

- Updating and replacing fading and outdated information boards at all beaches. These posters can be highly informative as they include pictures of scheduled species and why they are banned from being harvested or damaged. This information therefore needs to be clearly visible and updated. – *Forest Department and Gram Panchayats.*

- Creating a system of inspection to enforce rules and regulations applicable to the resorts and other tourism-related enterprises. – *Tourism Department.*
Conclusion

Tourism development in the Andaman Islands is currently at a crucial stage. With several public and private tourism-related projects in the works and a projected rise in footfall to the islands from the current 5 lakh per year to nearly 12 lakh tourists per annum by 2020 (NITI Aayog, 2018), discussions on the sustainability of tourism on the islands are necessary now more than ever. This study found that the islands are already facing several significant challenges in managing current levels of tourism. It therefore becomes paramount that these challenges be addressed at the earliest, so as to avoid the exacerbation of these issues with the scaling up of tourism projects in the near future. As one of the largest industries in the islands, the tourism industry can and has supported countless livelihoods across the islands. The development of tourism has resulted in an increased access to jobs that pay higher incomes, mobility within islands and to the mainland, and access to better education, as well as communication technology. Therefore, the addressing of fundamental issues in order to make tourism more sustainable can translate into significant improvements in the sustainability of the economy, peoples’ standard of living and access to resources, as well the quality of the environment.

This study has brought to attention the most common and pressing challenges faced across all stakeholders of tourism in the Andaman Islands through insights from Swaraj Dweep and Smith and Ross Islands. Waste management is a pressing challenge that is compounded with the growing number of visitors to the islands and materials consumed. With limited space available, the expansion of existing dumping yards is not feasible. Stakeholders are also facing the challenge of organizing the collection and the processing of waste, given the shortage of labor, transportation facilities, and accessible options for recycling waste. Similarly, the supply of resources such as food, water, and construction material is challenging, with the current state of transportation and connectivity. Therefore, public infrastructure such as water supply, electricity, waste management, and communication lines that is necessary to support the functioning of tourism-related activities need attention. Additionally, there has been little focus on learning from the past trip experiences of tourists and as a result, they continue to arrive unaware of local conditions and are unprepared for their stay in the islands.

The way forward

Sustainable tourism is a widely discussed concept, but both academics and stakeholders have struggled to define what this term means, what principles it must follow, and how it must be implemented (Sharpley, 2000). However, in these debates of what sustainable tourism should mean, little work has focused on the practical challenges of developing sustainable tourism practices. The challenges of managing a growing tourism industry in the Andaman Islands are mounting. However, there are several measures that can be taken to address such challenges in an attempt to make the growth more sustainable for the local economy, environment, and social well-being. These include the development of citizen cooperatives for waste management, capacity building and training exercises.
for participants in tourism-related activities (such as shopkeepers, resort owners, and other entrepreneurs), improved signage, clear definitions of rules and regulations on tourist activities, public meetings to ensure awareness about plans in tourism development, and the involvement of locals and tourists in volunteer-based beach clean-ups and other such activities.

On a larger scale, current forms of regulation need to be revised in order to help stakeholders be more mindful of plastic usage, sourcing of materials, and proper hiring of labour i.e. to keep the focus on a range of measures consistent with sustainable tourism. In contrast, at present, there is an absence of enforceable rules that regulate littering in public spaces, usage of plastic by tourists and resorts, the sale of single-use plastic, sourcing of material, employment and training of local labour, etc. With adequate shifts in legal frameworks, a system of accountability to governing bodies and social responsibility can be developed wherein tourists and tourism-related ventures are incentivized to be more mindful of practices such as usage and disposal of plastic waste.

Finally, there is a dire need to implement tourism that focuses on tourists as active participants in the economy and not just consumers. This means encouraging sensitive and informed interactions with the local culture and ecology to bridge the gap between tourists’ expectations and knowledge of the islands, and what they experience when they arrive. To accomplish this, simple measures can be taken such as briefings at information desks and resorts upon the arrival of tourists, that ensure that guests are made aware of local regulations, and cultural and environmental sensitivities. Improved signage and online information availability will also help address the gap between tourist expectations and experiences.

Around the country, there have been some successful efforts at implementing ecotourism projects and these can serve as examples for a model that balances ecological and social health with the growth of tourism. In Kerala, for instance, the Tourism Department has created a separate ecotourism wing to support the implementation of ecotourism projects in the state (Vinodan & Manalel, 2011). Additionally, the tourism committees formed at the state and local levels helped to democratize the processes of planning tourism and developing resource maps for places like Kumarakom. Other popular tourism destinations such as the Seychelles Islands have also provided examples for effective models of tourism wherein waste is managed cooperatively and dumping is minimized through a system of composting and channelling food waste to feed livestock. Such models can be used to inform new methods of addressing waste management in the Andaman Islands. With insights from these successful tourism projects, and adjustments to the current functioning of tourism in the islands, the Andaman and Nicobar archipelago has the potential to be an ideal location for sustainable tourism that is globally recognized for balancing growth with the socio-cultural and environmental needs of the people who inhabit these islands.


TOURISM TODAY IN THE ANDAMAN ISLANDS: AN ASSESSMENT THROUGH TWO CASE STUDIES