

EVERYDAY LIVES AND ENVIRONMENTAL CHANGE

Research Briefing Report



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**Addressing environmental sustainability, economic development
and livelihoods in the Maldives**

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1 Introduction

People often have diverse perspectives on the best ways to encourage economic development while also promoting sustainable livelihoods and protecting the natural environment. Our research project looks at the relationship between tourism development and environmental sustainability, and how it affects people's everyday lives and livelihoods, on three islands: K. Huraa, K. Dhiffushi and A.Dh. Dhigurah. This report provides the main findings of the project, which were presented to the island-based communities in late 2018/early 2019.

All three case study islands are located near to international resort islands, and so employment for tourism is an important component of the island economies, in addition to more traditional livelihood activities, such as tuna fishing. However, in recent years, the three islands have also experienced the rapid development of a local guesthouse-based tourist industry. This is creating new opportunities for employment, and service provision and construction industries. However, guesthouses also bring several environmental challenges for island-based communities, particularly regarding waste management. There are also cultural sensitivities associated with the integration of foreign tourists with island populations.

This report focuses on the main environmental changes taking place on the islands, the effects that such changes have, and how they are being managed. The next section describes the research approach before highlighting three important changes: beach and coastal erosion; the accumulation of waste and debris; and alterations in the built environment.

2 Research approach

To generate understandings of lives, livelihoods and environmental change on the case study islands, the empirical research combined and developed a series of innovative visual methods. These included taking photos and videos to capture everyday activities and engagements with the environment, including changes in the built environment. These activities were supported by photographic workshops, designed to stimulate further discussions among participants (Photo 1).



Photo 1 Presenting at a community-based photography workshop

Participant observation was undertaken to record and observe people's everyday lives and connections with their environment. The 'go-along' technique of data collection was also employed, where by the researcher asked questions as they moved alongside research participants. These methods had the benefit of increasing respondents' participation and of breaking down more generalised understandings of environmental change.

Interviews were undertaken with resort and guest-house managers and workers, tourists in resorts and guest-houses, local councillors, ordinary members of island communities, and representatives of government ministries. These revealed perspectives on changes in the physical environment and daily activities, and gathered contextual data on economic development, environmental sustainability, and livelihood strategies. Prior to the commencement of research, ethical clearance was gained at the researchers' home institutions. Interviews were conducted in Dhivehi and English as appropriate and, with permission of the research participants, recorded for later transcription.

3 Environmental change on islands

All three islands were experiencing several environmental-related changes. These were the result of both natural factors, such as winds, tides and currents, as well as those that are human-made, including economic and infrastructure development, demographic change, and the growth of the tourism sector. In the sub-sections that follow, these changes, and the ways in which they are being experienced and managed, are examined in more detail.

Losing, making and maintaining beaches

Beach erosion is one of the most common environmental problems faced by the three islands. The causes of erosion are complex but were mainly attributed to the development of new coastal infrastructure, such as harbours, which result in changes to how sand moves around the islands. In addition, extensive sand-pumping is sometimes undertaken by nearby resorts to maintain their beaches or to build up sandbanks for tourist recreation. This activity, whilst providing attractive beach areas for tourists, can increase the rate of sand erosion from community beaches.

The phenomenon of coastal erosion is evident on all three islands. In some places, erosion has resulted in the collapse of coconut trees, which has further exposed the beach to the erosive actions of sea currents, waves and storm surges. In other areas, guesthouses located close to zones of erosion have constructed groynes to slow down the further loss of sediment (Photo 2), although some people claim that such structures exacerbate the erosion problem on other sections of island. Sandbags have also been laid down to slow the erosion of sand. This is a relatively effective measure in the short and medium term, but is not necessarily a long-term solution (Photo 3).



Photo 2 Groyne construction



Photo 3 Installation of sandbags on the coastline

Concern was raised that more permanent solutions to the erosion of coastline, such as seawall construction, require an Environment Impact Assessment (EIA) to implement, yet the costs of commissioning such a study are prohibitive. However, it was also reported that one of the island-based guesthouses had helped the island Council to conduct an EIA for the construction of a new beach in an area close to the guesthouse.

Waste, rubbish and debris

Accumulation of debris on beaches, washed in from the sea or deposited onto the beach, is one of the main environmental challenges raised by island communities. The problem is often more acute during the monsoon season when the winds and ocean currents are stronger (Photo 4).



Photo 4 Accumulation of waste on beaches

Although waste can be transported by ocean currents for many hundreds of miles, island respondents pointed out that some of the rubbish washing onto islands originates in nearby resorts. During visits to islands, it was possible to identify resort names on some of the debris, such as slippers or pillow cases, and fruits that are mostly consumed in resorts, such as pineapples and oranges, were also discovered.

Community members regularly clean their beaches, with tourists sometimes joining in. These activities take place either through organised communal-based activities or through the paid labour of migrant workers. Local guesthouses have particularly strong incentives to keep their sections of beach clean. Preventing the inflow of litter onto island beaches is especially challenging and to which there is no obvious solution. Council leaders have communicated their concerns with nearby resorts, as well as the relevant government authorities, and are hopeful that this will result in significant changes.

In addition to being washed up by the sea, waste and rubbish in coastal areas can also be generated by domestic and industrial activities taking place on the island. Expanding populations and rapid economic growth typically result in greater quantities of waste being generated. Island councils have begun to counter this problem through the development of integrated waste management systems. One island is particularly advanced in this respect, with a waste management centre located away from residential areas and waste being collected from households through a fee-paying system (Photo 5). Households compost food waste and send plastics for recycling through the Malé based company, Parley Maldives.

Dustbins are placed in public places and very little food waste is thrown into the lagoon, as has traditionally occurred. Other islands also have waste management centres, although people must normally transport their own rubbish to these sites using wheelbarrows daily.



Photo 5 A waste management facility

Waste management systems are complex and take time and resources to establish. To this end, some councils have conducted comprehensive household and business waste surveys to understand the amount and types of waste being generated in the island. They hope to use this information to guide future waste management plans.

Changes to the built environment

Large areas of two of the islands visited have been reclaimed to accommodate the growing need for housing. Guesthouse development is also taking place on all three of the islands. Whilst there are some similarities in tourism development occurring, the types of tourist experiences being offered differ depending on local resources and opportunities. For example, on one island, rapid construction is taking place, where 'city hotels' of several storeys high are being built (Photo 6).



Photo 6 Guesthouse construction

In contrast, on another island, the development of guesthouses is accelerating but the industry is more oriented towards conservation and diving-based tourism, which is possible due to its lower population density, greater expanse of wooded area, and the common appearance of whale sharks off the coast. The island has a separate area for guesthouse development and therefore the leasing or selling of land in residential areas is not occurring as much as it is on other islands.

The scale of guesthouse-based tourism on the third island is not yet as great as in the first two. Most of the guesthouses, except for a couple of large buildings, are residential houses converted to accommodate tourists. Tourism is modelled as 'low cost' or 'budget', but with many activities such as surfing, snorkelling, island visits and fishing on offer.

Guesthouses are resulting in the rapid growth of other forms of tourist services on islands, such as souvenir shops, dive schools, ferry services, cafes and restaurants. These developments are generally supported by island-based communities, who are keen to stimulate local economic growth. Nevertheless, fears were raised on all islands over the potential for religious and social tensions due to the interactions of different cultures, with western-style swimwear causing the most concern. As a result, tourists were frequently reminded of the need to respect local customs and sensitivities through the installation of public signs (Photo 7). Moreover, tourists and islanders were often kept apart with the designation of 'bikini beaches'.



Photo 7 Beach signs advising tourists on how to dress and to behave

4 Conclusion

As demonstrated in this briefing report, the relationship between economic growth and environmental change is complex, and one that island populations are increasingly having to contend with. This is especially the case due to the rapid growth of the guesthouse-based tourism industry. Guesthouses, and associated developments, are generally popular due to the much-needed economic benefits that they bring, but they also create new challenges for local populations.

All three of the environmental changes described above – coastal erosion, the washing up of waste, and changes to the built environment – are resulting in new plans and policies being put into place by local leaders, and new initiatives being undertaken by the people that they represent. This local ingenuity would benefit from further external support, such as resources for waste management systems and the construction of coastal defences, in order to maintain and enhance the quality of island life.

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