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# 16 Planning for Sustainable Island Tourism Development in the Maldives

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## Introduction

McKercher (1993) notes that the debate surrounding sustainable tourism is often polarized by two different perspectives: on the one hand, the perspective subscribed to by the environmentalist and conservationist groups, which calls for a cautious approach to sustainable development and greater ecological preservation and, on the other hand, the perspective of the 'for-profit' industry advocates who envision a more development-oriented approach to sustainability. Is there a middle ground that promotes the principles and practices of sustainable tourism and at the same time enables the use of natural resources for economic development? In exploring answers to this question, this chapter traces the history and development of tourism in the Maldives, a small-island tourism destination where the protection of the natural environment and the economic prosperity of the country are inextricably linked. Tourists visit the Maldives to enjoy white sandy beaches and the pristine marine environment (Ghina, 2003), so any threat to the natural environment represents an obstacle on the journey towards economic as well as ecological sustainability. While these threats can take many forms, not the least of which are those related to climate change, sea level and temperature rise (Ghina, 2003), this chapter will focus on the specific impacts associated with tourism development on the ecologically fragile islands of the Maldives.

Several planning and policy mechanisms are in place in the Maldives to ensure that the impact on the environment from tourism-related activities is avoided (Maldivian Democratic Party, 2008). Successive tourism master plans for the Maldives since 1983 have embraced principles of sustainable development, and environmental plans have stipulated the protection measures that developers must follow strictly. Furthermore, the country's National Development Planning process, which is formulated in cycles of 5-year periods,

emphasizes the importance of sustainable development and provides the aegis under which policies for development must proceed. In this chapter, these planning and policy mechanisms are reviewed in relation to the sustainable development of the tourism industry. The account also describes the relevant laws and regulations that are in place and the respective administering authorities that play various roles in enhancing the promotion of sustainable development. The chapter concludes with insights as to how well sustainable development principles have served the Maldives tourism industry. It begins with a brief overview of the Maldives and the development of its tourism industry.

## A Brief Overview of Maldives Tourism

The Maldives is an archipelago of 1192 coralline islands occurring in rings of 26 natural atolls situated in the Central Indian Ocean off the south-western tip of India (Fig. 16.1). Most of the islands are quite small (approximately 0.7 km<sup>2</sup> in area on average) with only nine islands larger than 2 km<sup>2</sup> (Ghina, 2003). Over 80% are low lying, with an average elevation above sea level of 1.5 m. The climate is tropical with annual mean temperatures ranging from 28°C to 32°C.

The total population of the country is 298,968, of which 34.7% of the people live in the capital island of Malé. The rest are scattered over 192 inhabited islands which are situated across 19 administrative atolls. The policy to spread tourism across all atolls has the objective of spreading the economic benefits of tourism directly to the people living on all the atolls through the creation of tourism employment opportunities.

In many small-island countries, receipts from tourism account for a large proportion (20–60% or above) of their gross domestic product (GDP) (UNWTO, 1999). The Maldives is no exception, with tourism contributing 30% to GDP (Ministry of Tourism, 2004). In addition, past estimates that include the multiplier effects from tourism-related economic activities (such as construction and the distribution of consumer goods) in the Maldives take the total contribution of tourism to GDP to 80% (MATI, 1998). The annual report of the Maldives Monetary Authority (MMA), the country's Central Bank, confirms that foreign exchange earnings from tourism receipts accounted for about 90% of the service receipts of the balance of payments (MMA, 1999).

Tourism was introduced to the Maldives by an Italian tourist operator, George Corbin, who encouraged three enterprising Maldivians, Mohamed Umar Maniku, Ahmed Naseem and Hussain Afeef, to develop resort facilities for European tourists. Today Mr Maniku and Mr Afeef head two of the largest tourism organizations in the Maldives: Universal Enterprises and Crown Company, respectively. They also founded and have continued to serve on the Executive of the Maldives Association of Tourism Industry (MATI) since its inception in 1982. Under these two pioneers, the tourism industry in the Maldives has transformed itself to an exemplary status, demonstrating the innovative ability of Maldivians and the spirit of Maldivian enterprise (Reimer, 2007).

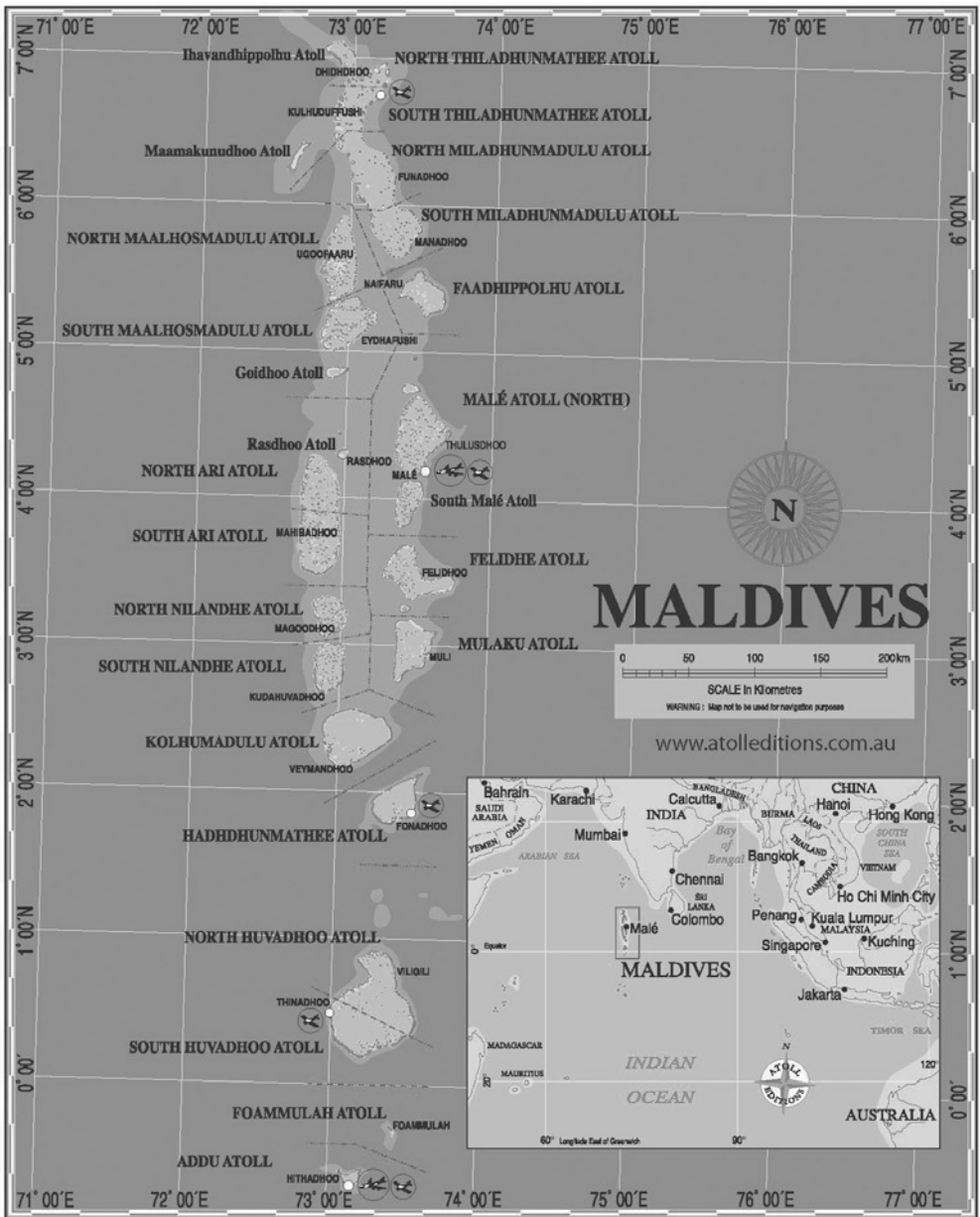


Fig. 16.1. Map of the Maldives. (Source: Atoll Editions, 2004.)

The rate of growth of tourism infrastructure has been controlled and the associated development carried out on a sustainable basis (Nethconsult/Transtec and Bord Failte, 1996). In North Malé Atoll, the international airport on Hulhulé Island is located next to the capital island of Malé and, logically,

most of the uninhabited islands near to Malé International Airport and in the adjacent Ari Atoll (North and South Ari Atolls), are leased as tourist resorts. That is because the distances to these islands are short, and tourists arriving on international flights will only have to have a short journey by sea to get to the resort island of their choice. In the past, the government has, as a policy measure, denied permission to private parties to construct landing strips for the operation of fixed winged or other aircraft (Ibrahim Gasim, personal communication to authors, 14 February 2008) on any island of the Maldives. Hence, the expansion of air services has been restricted. However, as an alternative to fixed-wing aircraft, increasing visitation has supported the introduction of seaplanes and helicopters, operating as add-on services out of Malé International Airport, which has greatly assisted the expansion of tourism to islands further away from the international airport. Hence some islands that were previously seen as located too far away to travel to by boat have become accessible. Tourists getting off an international flight and then travelling to these islands have a short helicopter or seaplane journey. In line with this development, more remote islands that are accessible by seaplane have been progressively released for tourism.

The relevance of tourism to overall regional development within the country, and the necessity to allocate resorts in all atolls of the archipelago, have been recognized since 2003, with the government announcing a policy to create more tourist resorts on every atoll. The new islands coming under this policy have been announced and were leased in 2006, although only a couple had been fully developed by the end of 2009. The policy to introduce tourism to atolls further away from the airports of the country was not, however, complemented by a government policy or investment plan to develop the necessary infrastructure for the development of these distant atolls. Notwithstanding this, the current government has sanctioned the private development of airports, and it remains to be seen how the market responds to the new developments and whether such investments will be sustained in the future.

The volume of international visitors or tourist arrivals has risen from 42,000 in 1980 to half a million in 2003; more than a tenfold increase over the 23-year period. By the end of 2007, a total of 8,382,928 tourists had visited the Maldives from the inception of tourism in 1972. The recorded annual arrival figure for 2007 was 655,852 (Ministry of Tourism, Arts and Culture, 2009). The supply of tourist bed capacity increased from 2400 beds to 19,600 from 1980 to 2004 representing an annual growth rate of 9% compared with the global average of 5% (Ministry of Tourism and Civil Aviation, 2007). According to the Ministry of Tourism figures, tourism bed capacity had an annualized average compound growth rate of 11.65% from 1972 to 2005. By the end of 2007, 92 resort islands had opened for business. A further 53 islands are allocated for tourism development, with a majority of them now leased (Ministry of Tourism and Civil Aviation, 2008).

Each tourist island is an investment worth approximately US\$18–20 million as the entire infrastructure and associated facilities are provided individually for each island. The Maldives has followed a one-island one-resort

policy, with every resort hosting on average approximately 100 bungalows or less. The *Second Tourism Master Plan 1996–2005* forecast that visitor arrivals would reach a total of 650,000 by 2005 and that provision would be made for 20,500 beds available to visitors by the end of the Master Plan period (Nethconsult/Transtec and Bord Failte, 1996). Those targets were achieved. The United Nations World Tourism Organization (UNWTO) in its report *Tourism Vision 2020* estimated that the Maldives will receive 1,414,000 visitors in 2020 (UNWTO, 2001). With the rate of current expansion now going ahead, it is likely that this target will also be achieved.

It has been the case that given the small volume of supply, there is no other place for the Maldives' tourism product to be placed other than at the top end of the market – thus its often undeserved tag as an expensive destination. It has, up to now, been the basis of an economically sustainable model of development which has served the destination well. However, as tourism expands across all of its atolls, strategies to diversify the Maldives tourism product to cater for market segments other than luxury seekers are necessary in order to maintain financial viability.

## National Development Planning Processes

The National Development Planning (NDP) process involves a series of 5-year plans that provide guidance on the economic, social and environmental development of the Maldives. Currently the Maldives is into its Seventh National Development Plan, a plan that covers the years 2006–2010 (Ministry of National Development, 2007). Its key guiding principles are:

Consistent with the principles of Agenda 21, the development policies to be pursued in 7th NDP should not compromise the ability of future generations to achieve non-declining per capita well being. Thus the Plan shall ensure the optimal use of the available natural resources and pave the way for the protection of critical natural capital such as coral reefs and fish breeding grounds. The new development programs shall consider the carrying capacity of the environment; assess the significant environmental impacts and identify impact mitigation measures where appropriate.

(Ministry of National Development, 2007)

Brown *et al.* (1997) describe the various measures of carrying capacity in the Maldives as related to waste production and management, tourists' perceptions of environmental quality, water (presumably freshwater) availability, and beach and coastal water quality. Solid-waste generation from tourism resorts was found to be well above average household waste generation at about 16.5 kg per visitor per week. Furthermore, the dumping of solid waste at sea was found, anecdotally at least, to be responsible for beach pollution and the necessity for cleaning resort beaches each morning. Consequently, tourists' perceptions of water and beach cleanliness were that both were good to very good, although some problems were perceived with drinking water quality. It must be noted that all islands have drawn on groundwater and rainwater in the

past, but now increasingly rely on bottled water and desalination plants as the water lens (water table) declines in level and quality.

However, the main mechanism for the assessment and regulation of the environmental carrying capacity of the islands developed for tourism is through control of the built environment. Regulations stipulate that the total area of the built environment should not exceed 20% of the resort island land area and that every room should be facing the equivalent of 5 m of beach. A total of 68% of beach space must be allocated to guest rooms, 20% to guest facilities (jetty, reception and restaurant), with the remaining 12% as open space between guest rooms. Overwater bungalows can be built to enhance the appeal of the resort but have increasingly been used to overcome a shortage of guest-room space, thereby artificially increasing the physical carrying capacity of resort islands. Thus, carrying capacity may be a useful concept for delimiting the environmental impacts of tourism development, but it has proven to be less effective when the economic imperatives of increasing demand and the need to expand capacity take precedence in planning processes.

## National Environmental Planning Processes

The Maldives developed its first National Environment Action Plan (NEAP) in 1989 with the assistance of the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP). This provided for the first time in the country a policy framework for the overseeing of development tasks in all spheres related to environmental management and planning under a national umbrella (Ministry of Housing, Transport and Environment, 2009a). This plan was intended to be used by the government for a term of 7 years. Further subsequent Environment Action Plans were formulated after a review process of each plan. The country is now in its third NEAP cycle (NEAP3). It has been recognized in NEAP3 that all government agents that concern themselves with environmental management must come to agreement with the key objectives and results to be achieved within the currency of the plan. To that effect, NEAP3 formulated 30 results-orientated goals, including the following sustainability-related goals (Ministry of Housing, Transport and Environment, 2009b):

1. Protect critical infrastructure.
2. Protect human settlements.
3. Increase the resilience of coral reef systems to climate change.
4. Reduce climate-related risks to tourism sector.
5. Protect human health from climate change-related vector-borne diseases.
6. Build resilience of fisheries and food production to climate change.
7. Natural disaster preparedness and mitigation.

Targets, to be achieved under each goal were specified in NEAP3, with proposed start dates from 2010 on to 2012, and the list is impressive and comprehensive. Some pilot projects are ongoing, for example, the Atoll

Ecosystem Conservation Project, a project implemented on Baa Atoll in 2009 by UNDP and the Maldives government, assisted by the Global Economic Facility (GEF), which has the purpose of designing and demonstrating an effective management system for atoll ecosystem conservation and sustainable development (AEC, 2009). This key project extends to 2011, at the end of which results will be evaluated with a view to extending main principles across other atolls of the country. Baa Atoll has been strategically chosen for this key pilot project because of its richness in biodiversity; many species of turtles and other marine life forms as well as flora and fauna have been traditionally abundant at Baa Atoll.

## Tourism Master Planning Processes in the Maldives

The *First Tourism Master Plan* was made in 1983; Denmark's DANGROUP was commissioned to carry out this task by the Maldives government. This first exercise at formalized planning was effective in the sense that the Maldivian government recognized that any construction of facilities or infrastructure for tourism purposes must be conducted in accordance with guidelines made for the purpose of preserving the environment. Furthermore, the government recognized that any change to the natural vegetation and landscape of the islands must only be made with regard to the physical carrying capacities on each island. No building was to be allowed to be more than two storeys high, and the extraction of material such as coral and sand from any part of the archipelago came to be banned forever, for construction or any other purpose. These principles are in force today, assisting the preservation of the environment as tourism expands.

The *First Tourism Master Plan*, being the first of its kind, made recommendations of an ultra-conservative nature and the legacy of this exercise has been that the passion for environmental preservation among developers in the Maldives became ignited. Despite differences on other issues, public and private sector bodies cooperate fully in enforcing measures to protect the marine resources and natural environment of the country. The *First Tourism Master Plan* had its focus on achieving efficacy from the infrastructure to be provided for tourism; it called for the introduction of what it termed zonal development, with three to four of the larger islands of the country selected and recommended as the central servicing zone islands for tourism. The plan recommended that tourism development be allowed strictly in and around these nodes, to make the service or the recommended nodal islands more efficient. In hindsight, this concept appears unworkable because, given the geography of the islands, the physical provision of infrastructure such as electricity, sewerage and communications from a nodal point to islands in the vicinity is practically impossible. Regardless of whether nodal islands could be established or not, having islands separated by sea means that such provision will, of necessity, have to be provided on an island-by-island basis. Costs will be incurred both literally and environmentally in replicating services on each island. There is no other choice, given the physical separation of the

islands by the ocean. Having underwater cables provided from nodal islands to resort islands did not prove to be a feasible or environmentally friendly alternative.

It seemed plausible that every island be made self-sufficient, with its own service infrastructure. In any event, the zonal concept prescribed in the *First Tourism Master Plan* did not materialize, and even during the currency of the plan, islands were sanctioned to developers in all atolls in and around Malé International Airport that were serviceable by seaplane and helicopter. What the *First Tourism Master Plan* did not anticipate was that the operation of services such as seaplanes was environmentally friendly, with landings and take-offs made on floating facilities that were collapsible so that disruption to the land or marine environment was negligible. The seaplane service was, therefore, revolutionary in extending the scope of the islands that may be developed for tourism.

The *Second Tourism Master Plan* was developed in 1996, formulated with grant assistance from the European Union (EU). The nodal development theme of the *First Tourism Master Plan* was re-conceptualized to encompass what was termed regional development, and the need for developing regional airports for tourism-specific purposes was recognized. While the first plan served as a platform for the creation of legislation to protect the environment, the second plan called for greater integration of the NEAP and policies created to promote tourism development. Pursuant to this vision, the selection of Marine Protected Areas (MPAs) in 25 different locations of the country to be frequented by divers visiting the Maldives was made, and the introduction of a Green Resort Award ensured that the spirit of environment preservation instituted during the *First Tourism Master Plan* period was sustained. It must be noted though that the majority of the currently declared MPAs are located in and around Malé Atoll and Ari Atoll (next to Malé Atoll). The sites to be protected have not yet been determined on a nationwide basis. Despite this, the *Second Tourism Master Plan* is also noteworthy for the recommendation that it makes to reposition the Maldives as a premium ecotourism destination, a theme which was to be expanded upon in the *Third Tourism Master Plan*.

The *Third Tourism Master Plan* notes that the Maldives tourism industry has remained mindful of the fragility of the environment. It recognizes that the practice of allowing only 20% of the land surface of each island to be built up has necessarily been maintained to the present day, and that various other planning regulations, such as the protection of the shoreline and setback limits, have been adhered to. However, despite such apparent adherence, in practice, ways to circumvent building restrictions have become evident, with almost all resort islands venturing into the construction of overwater bungalows, thereby avoiding some land-based planning principles stipulated in regulations. Importantly, the *Third Tourism Master Plan* alerts stakeholders to the challenges of these practices and others, which have arisen as a result of the rapid physical expansion of tourism development. For the first time, the *Third Tourism Master Plan* outlined the need to be cognizant of the resource needs of the other major industry of the Maldives – fishery – and the requirement for joint management of resources was outlined. These strategies need follow-

through action plans although, to date, a mid-term evaluation has not been conducted nor have strategic assessments been made.

The *Third Tourism Master Plan* was sophisticated in its recommendations, calling for a nationwide environment management system, and detailed the significant areas in this regard – such as solid-waste treatment, engineering solutions and sewage treatment – that must be taken into account in pursuing responsible development. These recommendations sit very well with the provisions of the current draft Environment Law and it remains to be seen in the future as to how such a system will materialize. The *Third Tourism Master Plan* is distinguishable from the other two because, for the first time in the Maldives, it called for development based on renewable energy sources. These recommendations of the *Third Tourism Master Plan* serve, without a doubt, as a foundation on which an integrated environmental management plan for the whole country could be based, given the importance of tourism to the economy.

## Tourism Laws and Regulations

All applications related to tourism development have to be tendered to the Ministry of Tourism, Arts and Culture which will, in turn, seek the expertise of the Ministry of Housing, Transport and Environment (MHTE, now the Ministry of Housing and Environment). The law currently in operation is the *Maldives Tourism Act 1999* (Law No. 2/99). Article 15 makes specific reference to the ‘felling of coconut palms and trees on an island or land leased for development as a tourist resort, dredging of the lagoon of such an island, reclamation of land, or any other activity ... as may be likely to cause a permanent change to the [natural] environment of such places’. Actions such as these may only be carried out after obtaining written permission from the Ministry and in accordance with the relevant regulations. The regulations set out under the *Regulation on the Protection and Conservation of Environment in the Tourism Industry* (Ministry of Tourism, Arts and Culture, 2010) are formulated pursuant to the *Maldives Tourism Act 1999* and they spell out in detail what developers can and cannot do with regard to any developmental activity carried out on an island.

The key Ministry involved in overseeing environmental protection in the Maldives is the MHTE. The law entitled *Environment Protection and Preservation Act 1993* (Law No 4/1993) is the key current legislation governing environmental management in the Maldives. It empowers the Maldivian government to formulate policies, rules and regulations. Additional powers include the mandate to identify areas for protection and preservation (Section 4). Section 6 empowers the government to halt, without compensation, any project that has ‘undesirable’ environmental impacts, and Section 7 prohibits the disposal of waste, oil and poisonous gases. The government has the powers to impose fines of up to Maldivian Rufiyaas 1 million (US\$100,000) for breach of the provisions of this Law.

The *Environment Protection and Preservation Act 1993*, and regulations under this law, formulated in 2007 and entitled *Environmental Impact Assessment Regulations*, are the key legal instruments regulating the protection of the environment. These are currently monitored by the MHTE. Additionally, the Ministry of Tourism, Arts and Culture enforces the separate set of regulations mentioned above entitled *Regulation on the Protection and Conservation of Environment in the Tourism Industry*.

The *Environment Protection and Preservation Act 1993* is currently being overhauled with a draft new legislation compiled with the assistance of UNEP. The proposed legislation is expected to provide even wider environment policing powers to the government and also the ability to introduce a more diverse range of fines for infringements. The draft tabled as a Bill on Maldives' Environment Protection is expected to go before parliament in late 2010 or early 2011. The Bill proposes to bring under the Environment Ministry's umbrella a wider range of functions, such as the introduction of the principles of renewable energy sources (as suggested in the *Third Tourism Master Plan*), delineate coastal protection zones and, for the first time, the protection of genetic resources in the country. Waste management has also been given a wider focus and it is now written into the proposed legislation that importation of plastic bags into the country must be controlled. The Waste Management Corporation is another government agency seeking international assistance in introducing modern methods of waste management in the country. Outside the government structure, organizations such as MATI, the Maldives Association of Travel Agents and Maldives Live-Aboard Association act as key stakeholders who are consulted by the government in formulating policies and legislation in relation to tourism planning, development and the environment.

## Key Challenges for the Future

The vulnerabilities facing tourism development in the Maldives will remain because tourism is so central to the country's economic prosperity and it has very few alternatives to pursue other than tourism for increasing its economic wealth. The need for exploitation of its natural environment cannot and will not be halted, as market trends continue to provide evidence that the Maldives tourism product will remain popular for the long-term future. What needs to be ensured is that the management of environmental resources is conducted responsibly.

As has been reviewed above, there are adequate mechanisms and policy instruments in the Maldives that indicate the willpower to achieve responsible methods of environmental management while simultaneously developing island tourism. However, the mechanisms are applied in a piecemeal way and traverse a number of government agencies. The NEAP plan is still not completed, despite the fact that programme dates were expected to commence from 2010. Action plans to prevent environmental damage and address potential impacts to the environment remain to be implemented. A country-wide environmental audit has not yet been conducted and it remains to be seen

whether mechanisms for environmental protection will extend to identifying existing environmental damage, as well as to safeguarding proposed future developments.

The *Third Tourism Master Plan* also called for the integration of tourism with environment protection management activities. Pilot projects such as the Atoll Ecosystem Conservation Project have proved promising but remain only that – as pilots. As with the case of determining marine protected areas, which began ambitiously at the time of the *Second Tourism Master Plan* process, only marine-protected areas in Malé and nearby atolls have so far been declared. The expansion of tourism must recognize that important conservation measures such as this need to be extended countrywide before tourist facilities are developed.

Tourism in all atolls will no doubt bring economic benefits, but unless a nationwide system is in place, the policing of environmental protection laws and regulations may not be effectively implemented. For example, the regulations prohibiting waste dumping into the sea are still not enforced effectively. Also, expansion of the land area of the existing resort islands has continued for the purposes of creating overwater bungalows. Although all land reclamation is supposed to be subject to an environmental impact assessment (EIA), anecdotal evidence suggests that some developments may have proceeded without the potential impacts being identified and documented. The construction of overwater bungalows appears to have been a way of circumventing built-environment regulations and the consequent damage to the lagoons, reefs and surrounding marine resources may be substantial.

## Conclusion

It is apparent that the Maldives has in place the appropriate plans, laws and regulations for effectively managing environmental impacts while ensuring that the economic benefits of tourism are sustained in the future. Since the 1970s, the Maldives has engaged in a systematic and well-planned programme of tourism development involving gradual expansion of transport and resort infrastructure in accordance with market demand and the environmental carrying capacity. Substantial growth in arrivals and resort capacity has been moderated by the controlled release of islands for resort development. This control mechanism is exercised through the various planning processes in place, including the successive National Development Plans (NDPs), Tourism Master Plans (TMPs) and National Environment Action Plans (NEAPs).

These planning processes and programmes suggest that the government of the Maldives would conduct an audit of the carrying capacity of the environment, as well as an assessment of significant impacts, and provide mitigation measures if there are problems identified. However, the current NDP planning period is now virtually at an end and there is little evidence of any centralized audit or nationwide impact assessment being made by the government. NEAP3 has outlined some targets to be achieved, but there is work to be done if environmental programmes are to be implemented and,

more importantly, monitored in the future. There is a need to replicate lessons learnt from pilot projects such as the Atoll Ecosystem Conservation Project in applying conservation principles uniformly across all atolls as tourism expands – for example, the delineation of marine protected areas in and around islands released for tourism. Establishing country-specific data against which EIAs related to tourism development could be assessed is crucial. Furthermore, the limitations associated with the application of carrying-capacity regulations in relation to the built environment have become increasingly apparent, as when the economic imperative to expand accommodation capacity in the form of overwater bungalows in response to increased demand takes precedence over environmental management processes.

However, in the face of the competing demands on tourism to deliver economic benefits to current and future generations of Maldivians, while simultaneously limiting the impacts on the natural environment that is the core of the tourism attraction, the Maldives has made admirable progress over the past four decades. In part, this transformation to more sustainable forms of island tourism resort can be attributed to the foresight of the founders and pioneers of Maldives tourism, who recognized that the pristine marine environment remains the basis for continued prosperity, not only for their businesses, but for the entire country. It is also the result of the various planning processes and programmes described above, which have attempted to embrace the principles and practices of sustainable development that provide a sound basis for responding to the multiple problems and opportunities that will confront the Maldives in the future, on their continued journey towards sustainability.

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