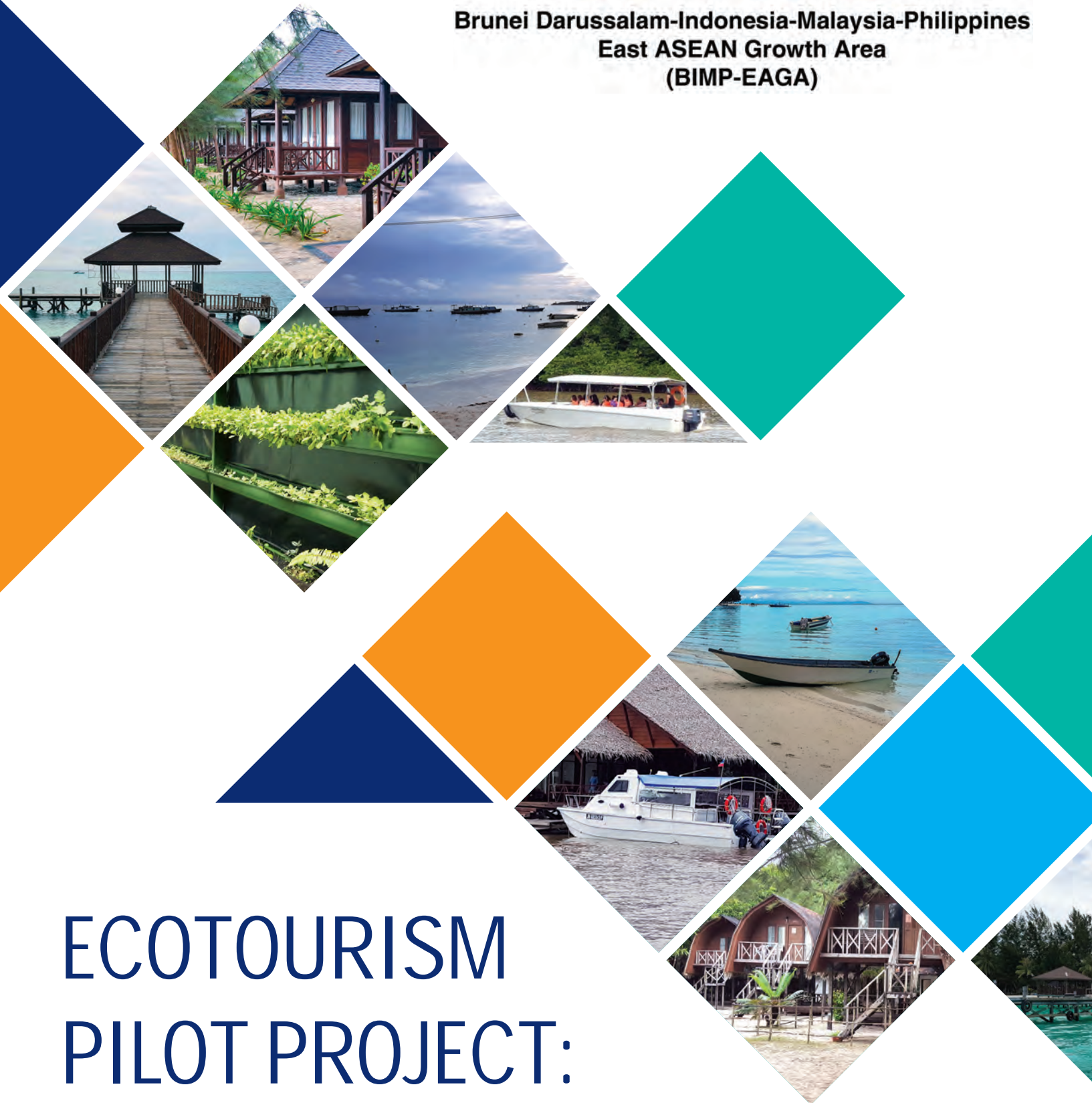




**Brunei Darussalam-Indonesia-Malaysia-Philippines  
East ASEAN Growth Area  
(BIMP-EAGA)**



# ECOTOURISM PILOT PROJECT: MANTANANI ISLANDS





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November 2017

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# Abbreviations

ADB	– Asian Development Bank
ASEAN	– Association of Southeast Asian Nations
BECBES	– BIMP-EAGA Community-Based Ecotourism Strategy
BEV2025	– BIMP-EAGA Vision 2025
BIMP-EAGA	– Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area
CTI-CFF	– Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security
CTMPTKB	– Coastal Tourism Master Plan for Tuaran and Kota Belud
DMMP	– Draft Mantanani Master Plan
DOS	– Department of Statistics
EHO	– Environmental Health Office
EIPP:MI	– Ecotourism Island Pilot Project: Mantanani Islands
EPP	– entry point project
ESSCOM	– Eastern Sabah Security Command
GSTC	– Global Sustainable Tourism Council
HALATUJU	– HALATUJU PEMBANGUNAN DAN KEMAJUAN NEGERI SABAH-2020
JKKK	– Village Security and Development Committees (Jawatankuasa Kemajuan dan Keselamatan Kampung)
kVA	– kilovolt-ampere
MIDA	– Malaysian Investment Development Authority
MMSP	– Mantanani Marine Spatial Plan
MRF	– Marine Research Foundation
MSP	– Marine Spatial Plan
NGO	– nongovernment organization
NKEA	– National Key Economic Area
O&M	– operations and maintenance
PPR	– Projek Perumahan Rakyat
RM	– Malaysian Ringgit
SDC	– Sabah Development Corridor
SEDIA	– Sabah Economic Development and Investment Authority
SESB	– Sabah Electricity Sdn Bhd
SIMP	– Sabah Islands Management Plan
SMTC&E	– Sabah Ministry of Tourism, Culture and Environment
SSMP	– Sabah Shoreline Management Plan

SSP2033	– Sabah Structure Plan 2033
SSRM	– Situational Spatial Report on Mantanani
STB	– Sabah Tourism Board
STMP2	– Second Sabah Tourism Master Plan 2011–2025
SWD	– Sabah Wildlife Department
TOL	– Temporary Occupation License
UNWTO	– United Nations World Tourism Organization
USD	– United States dollars
WCTCMP	– West Coast Tourism Corridor Master Plan



# Executive Summary

Global interest in ecotourism as a tourism market segment has risen since the 1980s, and ecotourism is now one of the fastest-growing sectors within the industry, increasing by 20%–34%<sup>1</sup> annually worldwide.

Within the Association of Southeast Asian Nations (ASEAN), at the subregional level of the Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA), ecotourism is seen as contributing towards sustainable economic growth that is “green” as well as inclusive and knowledge-based. This tourism sector can generate additional employment and livelihood opportunities for communities in rural or isolated environments, including forest, coastal and island areas. It can help to preserve cultural heritage, alleviate poverty, revitalize local economies and communities, create employment opportunities within and beyond destinations and, importantly, keep tourism dollars within destination. At the same time, it can help to preserve the marine environment and cultural heritage of the island’s Bajau Ubian people. The holistic approach to the future development of the Mantanani Islands using ecotourism is consistent with the overall vision of the BIMP-EAGA Vision 2025 of developing a resilient, sustainable, and economically competitive subregion as indicated by a level of development that is equal to or greater than the ASEAN average.<sup>2</sup>

Although the ecotourism sector within BIMP-EAGA has expanded significantly, it needs to develop and adopt industry standards and benchmarks for the sector. As yet, no island with carbon-free ecotourism as the main sustaining economic activity has been developed. In this context, the Malaysian Government and the State of Sabah have identified the Mantanani Islands off the northwestern coast of Sabah as a potential suitable site for developing a pilot ecotourism island resort to serve as a benchmark for similar developments in BIMP-EAGA.

The Mantanani Islands and their marine environment are typical of small tropical island groups in the subregion, where marine and terrestrial resources are limited, island populations have grown fast, the marine environment has been damaged by human activity as well as natural events, marine and terrestrial biodiversity is in decline, and outside developers and operators have limited participation by the local population. As with many other tropical island tourist sites in the subregion, Mantanani’s development trajectory is unsustainable, with conflict and competition over resources and jobs a growing issue. Moreover, the development of Mantanani and other Islands in the subregion is subject to many often conflicting plans and regulations which this study seeks to rationalize in order to bring about a comprehensive and holistic approach and outcome.

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<sup>1</sup> ADB. 2010. *BIMP-EAGA Community Based Ecotourism Strategy 2010*. Manila.

<sup>2</sup> Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA) Vision 2025, Asian Development Bank, (Circa 2017).

To reverse the unsustainable development trajectory at Mantanani and bring about a more sustainable and inclusive use of natural resources requires the preparation and implementation of a stakeholder-based integrated strategy to deliver the following outcomes:

- (a) a sustainable marine and terrestrial environment management planning framework to be known as the Mantanani Marine Spatial Plan (MMSP), that sets the context and regulatory framework for all future development and conservation activities at Mantanani;
- (b) enhanced living standards for the local community derived from improved sustainable utilities, education and health;
- (c) strong community participation in the tourism supply chain, based on the Global Sustainable Tourism Council (GSTC) sustainable destination criteria set within the framework of the MMSP;
- (d) well-developed supporting economic and social infrastructure;
- (e) controlled daily visitor volumes at Mantanani, by introducing capacity limits and low impact tourism under the MMSP, and higher quality tourist facilities and services.

An initial project design for achieving these outcomes has been prepared and is set out in Section 5 of this report. The main outputs of the project designed to deliver the above outcomes are:

- (a) design and gazettment of a sustainable MMSP, in compliance with the Sabah Structure Plan 2033, that will determine carrying capacities and land and marine use controls and zoning, as well as create sustainable livelihood opportunities for the local community and low impact commercial opportunities;
- (b) design and implementation of a stakeholder-based ecotourism strategy following the GSTC ecotourism destination criteria;
- (c) design, construction and operations and maintenance of supporting sustainable community and ecotourism infrastructure, i.e.
  - (i) an all-weather public jetty and heliport and single point of entry control for visitors,
  - (ii) circumferential and cross-island walk and bicycle way,
  - (iii) closed-system water and waste water treatment plant,
  - (iv) renewable solar power energy generation with underground power transmission,
  - (v) closed solid waste management system,
  - (vi) upgraded telecommunications and internet connectivity,
  - (vii) on-island health care, emergency and evacuation facilities,
  - (viii) upgraded primary school facilities and learning tools and participation in the ASEAN Eco-School Program, and
  - (ix) implementation arrangements for operations and maintenance and cost recovery based on willingness to pay criteria; and
- (d) feasibility, design and construction for upgraded or new, higher-quality ecotourism facilities and services, with a target average daily rate of RM1,200 per visitor per day.

The project is estimated to take 51 months to complete, assuming commencement in the fourth quarter of 2017, with completion by the last quarter of 2021. The public sector component of the project is estimated to cost USD16.1 million, while the private sector component is estimated to cost up to USD50.4 million.



# Introduction

Although ecotourism has expanded significantly in the Association of Southeast Asian Nations (ASEAN), at the subregional level in the Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA), and including Sabah, good benchmarks for promoting sustainable and inclusive island marine ecotourism development involving partnerships between local communities and outside tourism developers and operators have yet to be developed. In this context, the Malaysian Government and the State of Sabah have identified the Mantanani Islands group and surrounding marine environment (Mantanani), off the northwestern coast of Sabah, as a potential suitable site for developing an island marine ecotourism project to address this tourism subsector's issues and concerns, and to showcase best practices.

This report seeks to set out a marine ecotourism development strategy and project for the sustainable and inclusive development of Mantanani, in line with the principles set out in the BIMP-EAGA Ecotourism Strategy 2011–2015, Malaysia's 11th Plan for the Tourism Industry 2016–2020, National Ecotourism Plan 2016–2020, and the Sabah Structure Plan 2033. The report first provides an overview of the subregional, national and state planning and development context, with particular reference to tourism development trends and programs. Next, it provides a situation analysis for Mantanani to identify key issues and concerns that need to be addressed going forward. Finally, the report sets out a proposed project for the sustainable and inclusive development of Mantanani with ecotourism as the main economic thrust, set within the framework of a comprehensive marine spatial plan.

The preparation of this report combined desktop research of existing data sources and reports, site observation at Mantanani, and in-depth interviews with island and off-island stakeholders, including local community leaders, nongovernment organizations (NGOs), and state government agencies.

Map 1: Project Location—Mantanani Islands Group



# Tourism Planning and Development Context

## Regional, Subregional and National Planning Context

A framework for the sustainable and inclusive development of Mantanani is to be found in the ASEAN Tourism Strategic Plan 2016–2025, which prioritizes ecotourism as one of the region’s key economic activities. It is also outlined in the BIMP-EAGA Ecotourism Strategy, which seeks to elaborate the regional framework through the development of benchmark projects designed to bring about environmentally, socially and economically sustainable tourism development outcomes within the subregion—particularly in the Coral Triangle Initiative area. The development of the projects are benchmarked against Global Sustainable Tourism Council (GSTC) standards, and relying on strong private sector and community partnership approaches. The GSTC principles have been incorporated into Malaysia’s National Ecotourism Plan 2016–2025 and the 11th Malaysian Plan 2016–2020, both of which target Sabah as a key destination for ecotourism development.

## State Planning Context

At the state level, economic and social development is guided by the Halatuju -2020 (a shortened version for HALATUJU PEMBANGUNAN DAN KEMAJUAN NEGERI SABAH-2020), a master plan led by the Chief Minister’s Department to bring development and progress to Sabah. The Halatuju has six sub-agendas: (i) economy; (ii) social development, (iii) politics; (iv) human resource development; (v) enhancing the delivery system; and (vi) strengthening the Federal and State relationship. The Halatuju-2020 plan is in line with goals and strategies the 11th Malaysian Plan 2016–2020 focusing on three thrust sectors: agriculture, tourism and manufacturing. Development of the tourism sector is viewed as a priority in transitioning the state’s economy from over-reliance on primary products and their associated vulnerability to international price fluctuations, and into the service sector. The Sabah Development Corridor (SDC) Blueprint 2008 forms part of Malaysia’s national spatial corridor approach to development and in Sabah’s case builds upon the Halatuju. Tourism is identified by the SDC Blueprint as an important National Key Economic Area (NKEA) in line with the 11th Malaysia Plan development trajectory, as well as a channel for investment through a number of entry point projects (EPP) to drive economic growth in Sabah.

## Sabah Structure Plan 2033

The Sabah Structure Plan 2033 (SSP2033), a gazetted planning document, represents the state’s primary strategic land and marine use document that guides and advocates orderly, progressive and sustainable development land use across Sabah. It is the reference planning

document for all planning policies and development guidelines, including for tourism, and serving as an integrated planning document incorporating all public and private sector development plans, projects and programs for social growth and economic investment. The SSP2033 makes sustainability a key goal and establishes a Policy Statement on tourism, as follows:

### Policy Statement: Tourism T5

Marine resources and islands will be protected in line with State economic development and environmental protection. All marine sensitive areas with high conservation value but experiencing high volume of human-generated activities will be required to prepare Integrated **Marine Spatial Plans** to guide development and protection for these areas.

#### Proposal

- T5-1** This will entail formulation and production of strict zoning and **Marine Spatial Plan** and development guidelines to control development and regulate economic activities on islands to sustain marine resources for local livelihoods and tourism.
- T5-2** Marine resources will be well-managed to maintain the sustainability of the natural environment, as well as their maintenance as food security, economic, and tourism assets.
- T5-3** Proactive management is required for areas which face several challenges in terms of managing the impact on the natural environment, from non-environmentally sustainable infrastructure and economic development, to extractive fishing practices that put the marine resources at considerable risk.
- T5-4** The policy will require all developments in areas of outstanding marine biodiversity and ecosystem to have special development committees or task forces to oversee and integrate development in line with economic needs and environmental protection, including the recently established Eastern Sabah Security Command (ESSCOM).<sup>a</sup> The wholistic administration of dedicated planning and zoning of specific areas for different uses is necessary in order to integrate the important safety, economic, conservation values of the area.
- T5-5** An Integrated Marine Spatial Plan will provide the necessary development control and guidelines for local authorities to manage their marine assets accordingly.

<sup>a</sup> The Eastern Sabah Security Command (ESSCOM) was established on 23 March 2013 to address persistent attacks from pirates and militants in the Eastern Sabah Security Zone.



## Second Sabah Tourism Master Plan 2011–2025

The Second Sabah Tourism Master Plan 2011–2025 (STMP2) focuses on: addressing carrying capacity issues at nature and island tourism sites on the east and west coast; repositioning cities and major towns as destinations rather than simply as gateways; and addressing manpower shortages and ongoing capacity-building programs, especially among local communities. In this context, the Coastal Tourism Master Plan for Tuaran and Kota Belud (CTMPTKB) carried out in 2011 as part of the Sabah Development Corridor Initiative, funded by the Sabah Economic Development and Investment Authority (SEDIA), seeks to establish a major coastal resort destination competitive with other resort destinations in Southeast Asia. Tuaran and Kota Belud are a key components in the transportation chain linking the Mantanani Islands with Kota Kinabalu and the rest of Sabah, and are the staging points for sea access to the Mantanani Islands. Plans to improve sea access infrastructure under the Coastal Tourism Master Plan for Tuaran and Kota Belud will help to improve the reliability of sea transport to the Mantanani Islands.

The CTMPTKB designates 78.5 km<sup>2</sup> for integrated high-end resort development in four high quality tourism clusters: (1) the Sulaman-Lema'as Cluster, (2) the Ambong Bay and Environs Cluster, (3) the Usukan Bay and Environs Cluster, and (4) the Northern Eco Coast Cluster. Planned development includes:

- around 5,000 4- to 6-star resort accommodation units
- 1,150 holiday homes and residential units
- multiple marina developments offering up to 330 berths
- a broad range of sport and recreation, retail, and meeting facilities
- three new small-scale coastal town centers to serve as tourism hubs to support the existing towns of Tuaran and Kota Belud.

As noted in the CTMPTKB, its implementation will depend upon imposing development controls to prevent ad hoc development; creating a controlling authority to oversee the development of the CTMPTKB; acquiring the 164 privately held titled land to clear the way for resort development and providing relocation areas for the current owners in the affected area; and preventing conflict between tourism and local communities. It is noted that while the consultants indicated that it would be impossible to develop the coastal tourism strip without land acquisition, no alternative development approaches were presented or evaluated to arrive at the recommended approach.

Although included as part of the Northern Eco Cluster of the master plan, the recommendation for Mantanani was that no further development should take place there in view of the need to address critical issues related to the degradation of the island and marine environment, and its limited carrying capacity. The master plan did not set out a program to address the issues identified in its review of Mantanani.

## Sabah Islands Management Plan 2013

In addition to the CTMPTKB, tourism development is guided by the Sabah Islands Management Plan 2013 (SIMP), which was commissioned and approved by the Ministry of Tourism, Culture and Environment Sabah. This recommends only restricted ecotourism

development for Mantanani. It noted the low risk of tsunami, attractive beaches, clear water visibility, dive locations and the bird sanctuary as advantages for tourism.

### Sabah Shoreline Management Plan 2005

While the Sabah Shoreline Management Plan 2005 (SSMP), commissioned and approved by the Ministry of Tourism, Culture and Environment does not extend to Mantanani, it nevertheless provides guidance on the development of key access points to Mantanani along the coastline. This area has been categorized for low/medium density tourism.

### Draft Mantanani Master Plan 2017 – Prepared by Federal Town Planning Department

The Draft Mantanani Master Plan 2017 (DMMP) was prepared to facilitate the 11th Malaysian Plan programs for Mantanani Islands. The draft plan focused only on spatial land use for Mantanani Besar, with parcels of land zoned for the development of essential amenities such as clinics, jetties, retail units, schools, and housing for the poor under Projek Perumahan Rakyat (PPR). The two other islands and the surrounding seascape were not taken into consideration.

### 11th Malaysia Plan – Rolling Plan 2 Projects

The following are approved projects for Mantanani Islands under the 11th Malaysia Plan – Rolling Plan 2:

- housing
- solid waste management
- hybrid solar infrastructure
- underground water supply
- sewerage system
- health clinic
- jetty
- telecommunication tower

### District Village Management

At district level, Mantanani falls under the jurisdiction of the Kota Belud District Office. The district office represents the state government and its key regional development initiatives for Kota Belud District. It acts as an agent of change and as a liaison and mouthpiece of the government. The district office is about to reinstate its rating system for the island, which will assess commercial operations on Mantanani.

At village level, the village security and development committees (JKKK in Malay) provide an organizational structure for village heads to gain support for the administration of their villages. The village head is normally responsible to the district officer and district councils. They are charged with carrying out various government programs at the local level. This includes economic and infrastructure development, poverty eradication, and other general assistance programs involving various government agencies. Consequently, the village head is

seen as a representative of the state under the authority of the district officer, rather than as a representative of the village. The JKKK representative is not based on Mantanani, but on the mainland. The village head in Mantanani is elected by the community.

The development of Mantanani and other Islands in the subregion is subject to many often conflicting plans and regulations which this study seeks to rationalize in order to bring about a comprehensive and holistic approach and outcome.

# Ecotourism Development Trends

## Global Ecotourism Trends

In 2015, international travel was estimated by the World Tourism Organization (UNWTO) to have reached 1.186 billion travelers, of whom around 56% traveled for leisure vacation purposes, increasing at 4% per year since 2010. To this, the much larger volume of domestic tourists must be added, that may be from 3 to 10 times larger than international tourism flows. Southeast Asia's share of global arrivals in 2015 was 104.6 million, or 8.8%, with annual growth of 7.9% since 2010. Estimates prepared, as part of the BIMP-EAGA Community Based Ecotourism Strategy,<sup>1</sup> indicate that ecotourism activities are engaged in by around 10% of global leisure travelers. UNWTO forecasts to 2020 and 2030 indicate that international leisure tourism will increase by around 4% per year to 2030. However, as a result of the rapid economic growth in the People's Republic of China, India, and Southeast Asia, the UNWTO forecasts that international leisure tourist arrivals in Southeast Asia are expected to increase by 6.4% per year to 2030, much faster than the global average of 4% per year.<sup>2</sup>

While the proportion of leisure tourists actually staying overnight in small island marine ecotourism sites in Southeast Asia (such as Mantanani, Mabul and other islands with large community populations in Sabah) is much smaller than the number who limit their activity to day trips, the huge increase in the potential volume of ecotourism over the next 15 years, unless carefully managed, will place intense pressure on the ecotourism resources on which the region's communities and tourism developers and operators depend. Careful management and control of tourism development will be essential to securing the sustainable and inclusive development of the region's ecotourism resources.

## National Ecotourism Trends

In 2016, Malaysia received 26.8 million arrivals, up by 4.3% from 2015 (25.7 million arrivals). Singapore, Indonesia, the People's Republic of China, Brunei Darussalam, and Thailand were the top five visitor-generating markets, accounting for over 84% of total arrivals with Singapore alone generating almost 50% of total arrivals. It is estimated that over 50% of arrivals travelled for leisure or vacation purposes, visiting mainly Kuala Lumpur, Penang, Langkawi, and Melaka, as well as Sabah and Sarawak, with an average length of stay of around 6.6 nights. The 2015 household survey conducted annually by the Department of Statistics (DOS) of Malaysia, indicates that in that year 176.9 million domestic visitors travelled within Malaysia, up 4.5% from 2014 with average length of stay of 2.3 nights. Of these, most came from

<sup>1</sup> ADB. 2010. *BIMP-EAGA Community Based Ecotourism Strategy 2011–2015*. Manila.

<sup>2</sup> UNWTO. *2030 Forecasts*.

major urban areas, with over 60% estimated to travel for leisure purposes.<sup>3</sup> Day ecotourism trips and excursions to Malaysia's natural and cultural sites is a major part of the activities of its international and domestic tourism leisure and vacation markets.

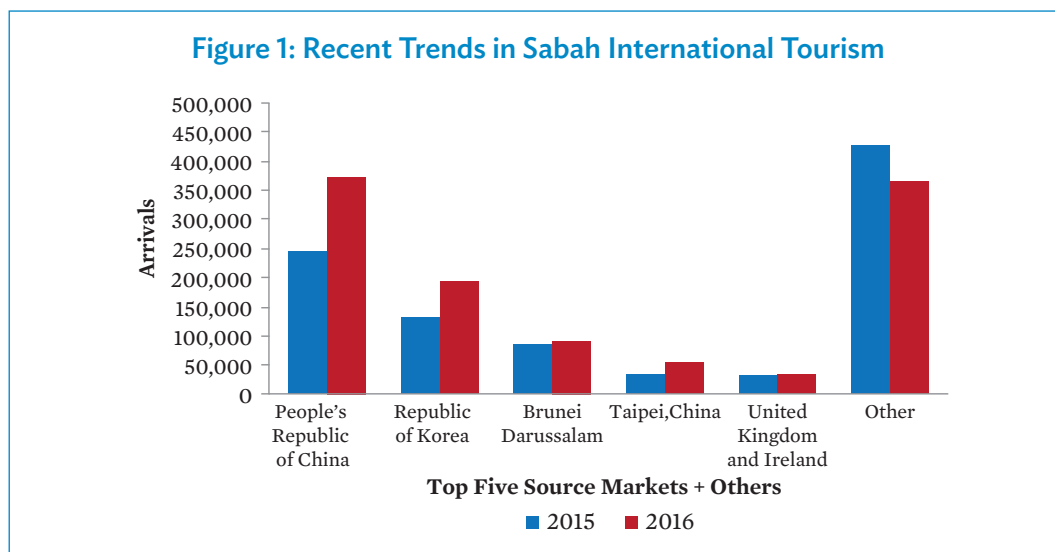
## Sabah State Ecotourism Trends

In 2016, the Sabah Tourism Board reported that the State received around 1.13 million international tourists, up 15.4% on 2015, and around 2.3 million domestic tourists, up 4.6% on 2015. Between 2010 and 2016, international arrivals increased at an average annual rate of 5.9% per year, while domestic tourism increased at 2.8% per year. As noted in the following chart, the top five international source markets (excluding Indonesia) were: (a) the People's Republic of China, accounting for 33.2% of total arrivals; (b) the Republic of Korea for 17.5%; (c) Brunei Darussalam for 14.4%; (d) Taipei, China for around 5%; and (e) the United Kingdom and Ireland for 3.2% of arrivals. The People's Republic of China, the Republic of Korea and Taipei, China are Sabah's biggest growth markets, while most other segments of specific markets such as Indonesia are stable or in decline.<sup>4</sup>

### Characteristics and Profile of Tourism

The main characteristics and profile of international tourism to Sabah, based on a 2016 exit survey conducted by the Sabah Ministry of Tourism, are as follows:

- Around 85% of international arrivals were first time visitors to Sabah coming mainly for a holiday, 88.7% for its forest, coastal and marine island ecotourism attractions, followed by 3.7% for business and travel to attend a meeting, incentive, conference or event.



<sup>3</sup> Badaruddin Mohamed and Yusnita Yusof. School of Housing and Planning, Universiti Sains Malaysia. 2001. *Malaysian Domestic Travellers: Characteristics and Behaviour*. <http://citeseerx.ist.psu.edu/>, 5 May 2017.

<sup>4</sup> Sabah tourism advises that most Indonesian arrivals were day trippers crossing borders for work and trade related matters with a very small overnight tourism component.

- Over 53% arranged their own trip using online travel agencies (OTAs), 31.1% bought a tour package, and 15.7% combined self-arranged (usually air) and tour packages.
- Peak arrival months are February (Chinese New Year in Asia), and July to December (main vacation holiday periods in Europe and Asia).
- Over 94% of arrivals used paid accommodation establishments during their stay in Sabah.
- Around 33.5% of international arrivals were aged 21–30, 26.6% were between 31–40, 15.2% were above 50, while the rest were under 21 years.
- Sabah's international tourism market is dominated by the Millennial (aged 20 to 35) and X-generation segments (aged 36 to 50) of the market.
- Females (especially Chinese) outnumbered males by a ratio of 58.2% to 41.8%; of these females, 35.6% were professional/technical workers, 19.2% were retirees and students, and 16.6% were management/administration workers.

## Forecast of Inbound Tourism

Data on the top ten international markets that accounted for almost 80% of total international arrivals indicate that they stayed for an average of 5.6 nights, spending an average of USD134.71 per day, with total expenditure of USD0.68 billion. It is noted that average spending by Brunei Darussalam, Singapore and Australian visitors was the highest in the top ten markets, while Chinese visitors were just below the average at USD131.41 per day. Although profile data on domestic tourism is not available, as in Malaysia as a whole, a significant proportion of this market seeks ecotourism experiences outside their predominantly urban settings for weekend breaks and vacations.

Forecasts of international and domestic tourism to Sabah prepared by the Sabah Ministry of Tourism, Culture and Environment (SMTCE) and the Sabah Tourism Board (STB) as part of the STMP2 were estimated using base scenario in which future growth would resemble the past trends with emphasis on increasing yield per capita, and a high scenario based on significant new resort developments, primarily on the west coast, with emphasis on increasing volumes and yield. As noted, in the base growth scenario, total international arrivals are projected to increase to over 1.29 million by 2020, and to 1.65 million by 2025, while domestic tourism is projected to increase to 2.18 million in 2020 and 3.55 million by 2025. With 1.13 million international arrivals and 2.3 million domestic tourists recorded in 2015, Sabah is slightly ahead against their base case forecast, but well below their high growth

**Table 1: Visitor Forecasts for Sabah**

Year	2009	2010	2015	2020	2025
International	562,144	795,953	1,011,273	1,290,669	1,647,257
Domestic	1,683,924	1,708,716	2,180,803	2,783,318	3,552,298
<b>Total</b>	<b>2,246,068</b>	<b>2,504,669</b>	<b>3,192,076</b>	<b>4,073,987</b>	<b>5,199,555</b>
<b>High Growth</b>					
International	562,144	795,953	1,213,878	1,645,460	2,134,859
Domestic	1,683,924	1,708,716	2,622,973	3,441,299	4,394,619
<b>Total</b>	<b>2,246,068</b>	<b>2,504,669</b>	<b>3,836,851</b>	<b>5,086,759</b>	<b>6,529,478</b>

Source: Coastal Tourism Master Plan for Tuaran and Kota Belud – Final Report.

scenario. In either scenario, the volume of tourism increase is between 2 and 2.5 times larger in 2025 compared to 2010, placing increasing pressure on Sabah's ecotourism resources and sustainable management capabilities.

With a number of new resort establishments opened in recent years, and many more planned as part of the West Coast Tourism Corridor Master Plan (WCTCMP), the share of resort stays for rest and relaxation is likely to increase significantly, and along with it Sabah's transformation from an ecotourism destination into a mass market coastal resort destination.

# Mantanani Situation Analysis

## Location, Access and Connectivity

**Location and Access:** The Mantanani Islands consist of three islands: Mantanani Besar, Mantanani Kecil and Lungisan. They are known collectively as Mantanani and are located on the boundary of the Coral Triangle, which lends it special importance. Although just outside the scientific boundary, Mantanani is well inside the wider Coral Triangle area, as defined by the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF).

The islands are located about 22 km off the West coast of Sabah, in the District of Kota Belud, about 72 km from the state's capital city, Kota Kinabalu. Connectivity from Kota Kinabalu is by road, leading to two main jetties servicing Mantanani, located at Kuala Abai and Rampayan. The boat journeys to Mantanani from Kuala Abai and Rampayan take about 1 hour and 40 minutes, respectively. There are no direct public transport connections to Kuala Abai or Rampayan from Kota Kinabalu, and there is no official ferry service to Mantanani.

The Mantanani Islands have a long history of occupation by the Bajau Ubian people that relied primarily on fishing for their livelihood. Although the islands experienced some inward migration from the Sabah mainland as well as from the Philippines, the predominantly Bajau Ubian population continue to observe traditional social and cultural values. Although the main island was known as Pulau Janda prior to the Second World War, local legend has it that a local hero named Nani who had harassed the Japanese during World War II, sought refuge on Pulau Janda from the Japanese. However, he was followed there by the Japanese and in order to conceal himself in his hiding place, he covered himself with a blanket or “manta” in

Map 2: Location Map within the Context of the Coral Triangle and Sabah



Source: MySabah.com/Coral Triangle, 7 May 2017.



Bajau Ubian and hence escaped capture. As the blanket had saved the heroes life, the Bajau Ubian people renamed the island Mantanani in honor of his heroism.<sup>5</sup>

**Connectivity:** All transport connections to Mantanani are by private speedboat. These boats, which are owned by households, resort owners or operators, are of variable quality, and safety is problematic. The resort operators provide a regular service to and from the island, but this is limited to guests. With no on-site local government marine support vessels to safeguard passengers from accidents or to enforce safety precautions. Studies undertaken by Reef Check<sup>6</sup> as part of the ongoing preparation of a Marine Master Plan for Mantanani found that boat accidents are a regular occurrence and fatalities do occur occasionally. Access is unreliable during the monsoon months of November to April, when strong winds and high waves at times make the passage to and berthing at Mantanani unsafe.

## Assessment of Physical, Social and Economic Environment

**Physical Environment:** The Mantanani Islands are classified under SIMP as low-lying islands with white sandy beaches and some inland rock forming the hub of each island. Mantanani Besar covers an area of 188.1 hectares. It is classified as having disturbed vegetation due to the resorts, except for the rocky hill at the western point of the island, which is a critical part of the aquifer of the island and has numerous caves. Mantanani Kecil covers an area of 15.3 hectares and is classified as having a mixture of primary forest and shoreline vegetation. Lungisan covers an area of 0.3 hectares, and is classified as a small rocky islet covered with trees. A Reef Check survey describes three classified marine ecosystems within which the Mantanani islands are located: extensive coral reefs; sea grass beds especially between Mantanani Besar and Kecil; and mangroves at various locations around the islands.

**Climate:** The climate of Mantanani is classified as tropical maritime, with no pronounced dry season. It is influenced strongly by the northwest monsoon that blows between November and April, causing rough sea conditions. Temperatures range from a maximum of 35°C in April to a minimum of 27°C in December, with rainfall ranging from a maximum of 400 mm in December to a minimum of 27 mm in March. Wind gust speeds range from a maximum of 12.3 mph in February to a minimum of 7.8 mph in May. Sunshine hours total 1,398, ranging from a high of 146.3 hours in May to a low of 80.8 hours in November.<sup>7</sup>

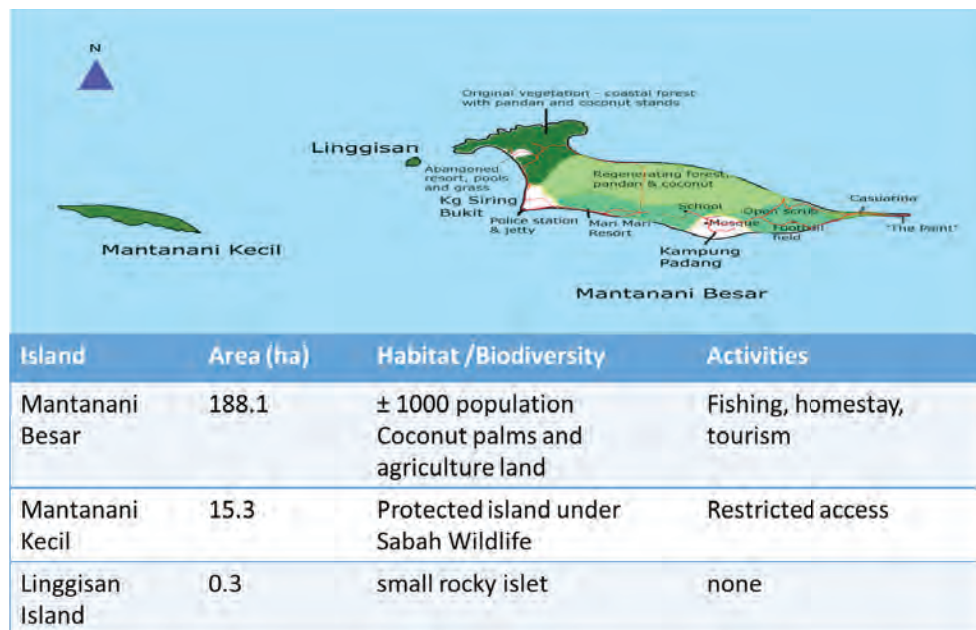
**Biological and Ecological:** On Mantanani Besar, vegetation is mainly secondary forest, as well as scrub and shoreline vegetation with extensive areas of coconut palms. Mantanani Kecil is not populated, and has been established as a state-gazetted bird sanctuary area for the protection of the scops owl, various pigeon species, doves, and megapodes, under the management of Sabah Wildlife Department (SWD). The draft Mantanani Islands Marine Conservation Area Management Plan, prepared by Reef Check, includes proposals to introduce management strategies for the island and the waters surrounding it.

<sup>5</sup> Expedition to the Mythical Islands of Mantanani, Low Kok On and Zulherry Isnain, Sabah Daily Express, 17 April 2017. (<http://www.dailyexpress.com.my/read.cfm?NewsID=2002>), accessed 23 October 2017.

<sup>6</sup> Reef Check is a Malaysian based Foundation for the conservation of coral reef marine biodiversity working at the time on and Marine Management Plan for Mantanani.

<sup>7</sup> <https://www.worldweatheronline.com/kampung-mantanani-weather-averages/sabah/my.aspx>, 5 May 2017.

### Map 3: Mantanani Islands Profile Summary



Source: Sabah Tourism Board, 2010.

Studies conducted by the Marine Research Foundation (MRF) suggest that while Mantanani is an important staging ground in the development life cycle of green turtles, the dugong no longer inhabits the seas around Mantanani. Although rapid assessments undertaken by Reef Check indicate that Mantanani's reefs are in fair condition, they also report numerous indications of significant adverse impacts from fish bombing, pollution, overfishing, tourism development and storms.

**Socio-cultural Environment:**

- **Ethnic Group:** The majority of the population in Mantanani are from the Ubian tribe, a sub-group of the Sama Bajau ethnic group in Sabah. Over the years, the Ubians have grown to become the largest ethnic group within the Bajau community. The majority of coastal Ubians are fishermen and live a subsistence life with relatively low income. Literacy rate is low and many settlers are still considered undocumented. Ubians from Mantanani arrived on the island in the 1950s, and the majority have been assimilated into the fabric of Sabah's Bajau ethnic group. Although they still maintain their unique language, many speak Malay fluently.
- **Population Profile:** The 2010 Census and Sabah Statistics Yearbook does not provide detailed data at Mantanani level. However, a Reef Check survey on Mantanani found that there were approximately 1,000 people living on Mantanani Besar located in two villages, Kg Padang and Kg Siring Bukit, with a combined total of 180 households. The survey also found that:
  - Most of the population comprises Malaysian citizens with identity cards, Malaysian citizens without documentation, and others, most likely from the Philippines.

- Most of the island community are from the Bajau Ubian ethnic group.
- There are generally more than two generations per household, with an average of three persons employed per household.
- Of total households, 127 have adults that either have no education (20), or were educated to primary school level only (107).
- Fishing is the main source of livelihood for 109 households, followed by tourism for 38 households.
- Around 114 households reported an average income of RM500 per month, well below the Malaysian poverty line.

**Land Tenure:** While land tenure on Mantanani Besar is not clear, the Land Office Supervisor and Assistant District Officer in Kota Belud confirmed the ownership of the main resort operations are based on Temporary Occupation License (TOL). According to village representatives, none of the villagers held land titles, although a number of villagers had applied to the state government for land. It is common practice in Sabah for individuals to apply for unalienated land held by the government. However, in the case of the Mantanani villagers, they have not received any reply and the status of their land application is unclear. About 21 acres of land is said to have been reserved for housing under Projek Perumahan Rakyat (PPR)<sup>8</sup> or Peoples Housing Project. This housing scheme is part of the Draft Mantanani Master Plan prepared by the Federal Town Planning Department. However, there are no details of where, or when, this project is scheduled to begin. Further information on land tenure at Mantanani is shown in Appendix 2.

## Transport and Utility Infrastructure

**Transport Infrastructure:** Although the villagers have their own village jetty, this is in a poor state of repair and maintenance. Two resort operators have built their own substantial jetties and other smaller operators have more modest jetties. Other operators simply land their guests on the beach. There are no roads on any of the islands. However, Mantanani Besar has a cycle track located in the middle of the island that runs approximately from one end of the island to the other.

**Solid Waste Management:** There is no formal solid waste management system on Mantanani operated either by the government or private sector. Although a new waste system was recently introduced to handle waste, including its carriage to mainland dumps, village waste continues to be piled up on an adjacent site (to be sorted and collected by the local District Council). Most resorts continue to ship their waste to the mainland rather than rely on the new waste system. In the meantime, the village and resort operators practice a variety of unsanitary disposal methods, such as open burning, pit disposal in the jungle, and some waste removal from the island. The Environmental Health Office (EHO) in the Kota Belud District Office estimates that there are currently 1,660 cubic meters of accumulated waste on Mantanani Besar. These waste are all over the island, particularly plastic waste, and in the marine environment, most likely from dumping out at sea.

**Water and Wastewater Treatment:** Water is drawn from shallow wells that are serviced by an underground aquifer with estimated capacity of 1 to 3 million m<sup>3</sup>, with the deeper section

<sup>8</sup> Draft Mantanani Islands Master Plan: Federal Town Planning Department.

of the aquifer located at the western end of the island near the hill area, and the shallower section at the eastern section of the island. Most of the households have their own well, though some do share wells. The resorts located mostly in the eastern portion of the island have their own wells and most have external filters that supply water suitable for bathing, but not for drinking. Rain harvesting and water recycling appear not to be practiced in either the village or resorts. The reported increasing salinity of ground water indicates that extraction significantly exceeds the natural recharge rate. Ground water in Kg Padang is considered to be polluted, with occasional outbreaks of infectious diseases reported resulting from the proximity of water extraction and unsanitary sewage disposal facilities, as well as the location of cemeteries in the village.

**Energy:** Mantanani Besar has two diesel generators with estimated capacity of around 92 kVA each. Operation takes place from 6 p.m. to 6 a.m., providing electricity to both villages. The generators are supplied and maintained by the state-owned Sabah Electricity Sdn Bhd (SESB). However, there have been complaints that these generators do not function consistently and villagers need to wait for SESB maintenance staff to visit, which can result in several days without electricity. The resorts, however, have their own diesel generators, with capacity ranging from 50 to 200 kVA.

**Telecommunications:** A mobile phone telecommunication mast operated by Maxis Berhad, a private sector telecoms operator, is being installed. In the meantime, there is limited mobile phone coverage through other mobile phone operators, but connection is sporadic. A number of the resorts have installed their own telecommunication masts providing Wi-Fi and internet connections.

**Summary:** In many respects, Mantanani has been a forgotten area for development across a wide range of services and utilities. Meetings with village leaders and opinion holders suggest that the Kota Belud District Office has been unable to extend basic services in Mantanani due largely to budgetary constraints. This has not only resulted in a poor standard of living for the local community, but has made Mantanani ill-prepared for the recent boom in tourism and significant influx of visitors. This has placed a tremendous strain on utilities, which are clearly insufficient for the community, overnight visitors and day-trippers.

## Social Environment

**Education:** There is a government primary school on Mantanani Besar, with 139 children attending, and 12 teachers and 3 assistants teaching the national curriculum. Discussions with the principal indicate that the school has one of the lowest attainment rates in Malaysia. The principal blamed this on the children's lack of exposure to the outside world, lack of engagement by the parents, and very few resources and aids (such as computers) to support teaching practices. Few children continue on to secondary school, and those that do must find a place at a boarding secondary school on the mainland that is generally beyond the financial capacity of many parents.

**Training:** There are no formal government training programs being implemented on Mantanani Besar. However, the village head explained that young people want to learn new languages, particularly Mandarin, which they hope will enable them to secure a livelihood

in tourism on the island. A one-off government sponsored dive training program was implemented on Mantanani Besar, but the program failed when the diving instructor was not paid for his services and he in turn refused to sign the students' dive certificates.

**Medical Services:** There is no medical facility on Mantanani Besar, except for one resident who serves as a dresser catering to minor health and accident issues. The village head noted a number of instances wherein severely ill people had to be rushed by boat to the mainland, but the feasibility of this depends on the weather. Such sea transport at night is done only in extreme emergencies. The village head said that he has been requesting for a midwifery facility to be established on the island, as several women had given birth while still on the boat heading to the mainland. The lack of medical facilities also has implications for visitors. In the case of divers, there is no decompression chamber available for treating decompression sickness. In a more recent development, the local minister declared that RM5 million has been set aside to construct a clinic on Mantanani Besar by the end of 2017.

## Economic Environment

**Household Income:** Data on the size and structure of the Mantanani economy is not available. However, a study of 180 households conducted by Reef Check as part of the preparation of the Draft Mantanani Management Plan prepared in March 2017 provides some insight into the structure and scale of the Mantanani economy. The survey found that 57% of household income comes from fishing, 25% from tourism jobs, 8% from handyman work, 8% from services, and 2% from other sources. Based on the income ranges reported in a recent Reef Check survey,<sup>9</sup> applied to the number of households, it is estimated that total household income for the 180 households in 2016 ranged between RM0.86 million and RM1.75 million, with median of RM1.31 million. Of this, RM0.75 million based on the median income estimate came from fishery activities, RM0.33 million came from tourism, and the balance from other sources. The survey also found that 63.3% of households earned less than RM500 per month, indicating that the island community is well below the Malaysian poverty line of less than RM800 per month.<sup>10</sup>

**The Tourism Economy:** The tourism sector appears to be one of the few sectors with the potential for increased employment and household income for the residents of Mantanani. In 2016, it is estimated that the sectors' day and overnight visitor facilities, including around 80 accommodation units and 14 homestay establishments, serviced an estimated 25,344 overnight visitors, and 126,720 day visitors. These visitors generated an estimated total expenditure (income to the operators) of between RM16.5 million and RM69.9 million, with most likely median expenditure of around RM43.2 million, and directly employed 160 persons, of whom around 20% are estimated to be from the resident population. It should be noted that as most of the spending by tourists is pre-paid in Kota Kinabalu or elsewhere, most of the income derived from Mantanani's tourism resources does not go to residents. Normally, one would expect that communities would be linked to the tourism supply chain through provision of local transportation services, employment in resorts and restaurants, souvenir shops, handicraft production, vegetable, fruit and poultry production, etc. However,

<sup>9</sup> Reef Check. Draft Mantanani Management Plan, March 2017.

<sup>10</sup> [www.thepovertyline.net/malaysia/](http://www.thepovertyline.net/malaysia/)

the Mantanani supply chain is tightly controlled by the resort and tour operators, making it difficult for local people to participate. Moreover, the 14 homestay residences with one or two guests a month, are having difficulty making ends meet due to lack of public transport to the island and lack of the internet connectivity essential for this type of micro-business to succeed.

Based on the share of reported median household income from tourism of RM0.33 million, the local community's share of the tourism sector represented less than 1% of total estimated median tourism expenditure in 2016, while only 32 of the 160 persons employed came from Mantanani. Low education levels, poor language skills, inability to undertake sustained employment, and lack of a sufficient pool of young people interested in working in the tourism sector were cited as the reasons by operators for the low local employment ratio. A more detailed analysis of Mantanani's tourism sector and its impact is set out in Appendix 1.

## Natural Hazards and Security and Safety

**Hazards:** According to the village head, the biggest natural hazards that the community faces are storms, lack of food security for the many that live a subsistence lifestyle, and occasional outbreaks of red tide. During the monsoon season (October to March), the fishermen are restricted from going out to sea and therefore families need to rely on what few vegetables they manage to grow. The provision of a reliable, all-weather public jetty to enable public transport via larger vessels provided by a Mantanani boatman's cooperative could significantly boost access to employment opportunities.

**Security and Safety:** Although there is a police post located on the opposite end of Mantanani Besar to the village and most resorts, community leaders would like to see another police post established closer to the village. There is also growing tension between the villagers and resort operators and tourists, with some resorts accusing villagers of stealing items from their guests and from the resorts themselves.

## Land Use Planning and Development Controls

**Land Use Planning:** While the Town and Country Planning Ordinance Cap141 provides the authority to cover land use control (both terrestrial and marine) for the whole of Sabah, there appears to be very little involvement from the district office or any other line ministry, department or government agency. A meeting held with the land office supervisor indicated that there were no government development plans currently under consideration for Mantanani within the District Office. Thus, apart from SSP2033, the only existing development land use plans for Mantanani are those contained in the CTMPTKB and the SIMP—both of which conclude that no further development is warranted at Mantanani. In this context, the development of the Mantanani Marine Management Plan by Reef Check is a positive step that could, with stakeholder support, pave the way for the rehabilitation and sustainable use of the Mantanani marine environment. Providing additional support to the completion of the marine management plan being undertaken by Reef Check should be a priority action.



The SWD is responsible for the protection and preservation of Mantanani Kecil as a bird sanctuary. The department is currently preparing a management plan for the protected island and the waters surrounding the island, but their plans for gazettement are limited to Mantanani Kecil and to their wildlife management role. These plans do not seek to address the broader terrestrial and marine sustainability issues across all three islands.

**Development Controls:** A meeting with the assistant engineer of Kota Belud District Council revealed that none of the resort developments on Mantanani Besar had approval for their development plans and building plans from the local authority. Thus, there is no enforcement of existing district and statewide development controls.

## Conclusions and Recommendations

**Conclusions:** The situation analysis has identified a number of key environmental, social and economic issues and challenges affecting prospects for sustainable and inclusive development and growth of Mantanani:

- In the physical environment the main issues include: (a) over-fishing that has disrupted marine biodiversity and reduced sustainable harvest; (b) destructive fish bombing and other overharvesting activities, including for tourism, that destroys coral reef ecosystems; (c) increasing solid waste and waste water pollution from villages and tourism activities that contributes to reduction in terrestrial and marine biodiversity; (d) over-harvesting of terrestrial species such as swiftlets and megapode eggs that endangers bird species; (e) unsustainable use of ground water resulting in rising salinity and damage to vegetation; and (f) lack of any planning framework and enforcement arrangements with respect to the protection of the marine and terrestrial environment.
- In the social environment, main issues include: (a) lack of trust within the community itself, and between the community and outside resort developers and public sector officials; (b) conflicts arising from restrictions on ecosystem use and disagreements on rules and regulations; and (c) the exclusion of the community from most of the economic benefits of tourism on Mantanani.
- In the economic environment, the key issues are: (a) strong growth in tourism income, little of which goes to the community; (b) the highly seasonal pattern of tourism arrivals; (c) limited employment of local people in tourism, leading to tension between the local community, resort and tour operators and tourists; (d) lack of supplementary livelihood opportunities, especially to fill the lean northwest monsoon months of November to April; and (e) exposure to security, health and competitive factors that affect the growth of tourism on Mantanani.

There is also a dearth of baseline data on the condition of the physical, social and economic characteristics and carrying capacities of Mantanani. Notwithstanding the data gaps, it is concluded that Mantanani's physical, social and economic environment is on an unsustainable trajectory which, if not reversed, will lead to complete destruction of its marine and terrestrial biodiversity, reduced tourism, and further impoverishment of its communities.

**Recommendations:** To arrive at more sustainable and inclusive development trajectory for Mantanani, it will be necessary to:

- implement a sustainable marine and terrestrial environment management planning framework that would include the marine management plan currently being prepared by Reef Check;
- create stronger community participation in the Mantanani tourism supply chain through a collaborative approach, with the resort developers/operators grounded in the sustainable tourism destination criteria identified by the GSTC;<sup>11</sup>
- subject to carrying capacity requirements, develop a range of supporting sustainable development infrastructure in the transportation, telecommunication, potable water and waste water treatment, solid waste management, energy, education, health care and emergency services areas; and
- subject to verification in the management planning framework, upgrade and where necessary completely redevelop resort facilities, with capacities limited to a maximum of around 300 beds (subject to confirmation in the management planning framework) generating up to RM1,200 per person per night.

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<sup>11</sup> <http://www.gstcouncil.org/en/gstc-criteria-hotels-tour-operators-destinations/criteria-for-destinations.html>, 8 May 2017.



# Proposed Development Strategy and Project for Mantanani Islands as a Pilot Marine Ecotourism Destination in Sabah

## Proposed Development Strategy

As noted in the Situation Analysis, to put Mantanani on a more sustainable and inclusive development trajectory, it will be necessary to implement the following: a strategy designed to create and implement a sustainable marine and terrestrial environment management planning framework; strengthen community participation in the tourism supply chain based on the GSTC sustainable destination criteria; provide supporting infrastructure; and control total visitor volumes at Mantanani by substantially raising the quality and price of tourist facilities and services.

At the core of the strategy to place Mantanani on a more sustainable and inclusive trajectory is the need to develop an integrated planning framework for Mantanani that can provide a road map to address these challenges and provide a knowledge product of best practices in the BIMP-EAGA subregion. This framework must: (a) ensure that the livelihoods, living standards and well-being of the local community are enhanced, and poverty is eradicated, through development that is inclusive of the Mantanani community; (b) provide an opportunity for low impact ecotourism to be developed for the benefit of the state, local district, and Mantanani itself, as advocated in various state tourism development plans with GSTC ecotourism destination criteria, and exploring as well low-impact fishing, aquaculture and mariculture; and (c) recognize that the environment represents the impacted sector, which is vulnerable to any human activity. The framework must, therefore, provide strong guidance in achieving sustainable economic and social development, and recommend infrastructure that maintains and promotes a healthy terrestrial and marine eco-system.

It is recommended that this development framework take the form of a Marine Spatial Plan (MSP), which is a practical way to create and establish a more rational organization of the use of marine space and the interactions between its uses, to balance demands for development with the need to protect marine ecosystems, and to achieve social and economic objectives in an open and planned way. SSP2033 mandates the preparation of an integrated MSP for situations such as that of Mantanani, and the process for developing such plans is already well understood by the Sabah State Government. MSPs are already being developed in respect to other islands, and initial discussions with the director of town and country planning indicates willingness to support the preparation and management of a similar plan for Mantanani.

The marine spatial plan will establish authority for the integrated development plans, including economic and social infrastructure development and management strategies. The planning procedure will require that the marine spatial plan be approved by the State Cabinet and undergo gazettelement, making the plan a statutory planning document for development control and enforcement purposes. This means that the plan will secure the longer-term future for the community, ecotourism development and the environment.

The marine spatial plan represents a strong stakeholder approach by which the Mantanani stakeholder network will be clearly defined and all stakeholders given a voice. The local community will be able to provide their input into shaping the development of the islands in a way that ensures their ownership of the management plan and approach to inclusive development. This engagement process will also have the benefit of drawing in line ministries and departments that up until now might have overlooked their role in developing Mantanani. This will ensure the provision of adequate infrastructure, utilities, education, healthcare and safety and security. Importantly, such integration across all line ministries and implementing agencies will ensure that development goals are harmonized and do not adversely impact each another.

The marine spatial plan will also consider terrestrial issues on the mainland that will be impacted by the development plans and management strategies to be developed for Mantanani. The plan will ultimately serve as a framework to guide sustainable and inclusive economic and social development. As such, the social and economic infrastructure, and tourism development concepts that are discussed here will sit quite naturally within the marine spatial planning framework as key development strategies. A detailed step-by-step approach to the preparation of the marine spatial plan and its various components is set out in Appendix 2.

## Project Description

**Project Title:** The Sustainable and Inclusive Development of the Mantanani Islands and Marine Environment through Marine Ecotourism

**Project Proponent:** Malaysian Government and Sabah State Government

**Project Background, Context and Rationale:** Mantanani is representative of many islands in the region where traditional fishery livelihoods are declining, populations are increasing, and forest and marine biodiversity is declining, even as competition for scarce resources is occurring between outside tourism developers and local communities, most of whom are excluded from participating in the tourism supply chain in their home island. Both the ASEAN and BIMP-EAGA frameworks and the Federal Government of Malaysia and including the State Government of Sabah have prioritized ecotourism development as one of the key elements in providing economic opportunities for small island communities.

In the above context, the BIMP-EAGA community-based ecotourism strategy 2011–2015 recommended the development of pilot projects to showcase the way ecotourism development should take place in forest, coastal and island marine environments. Despite a number of successful ecotourism initiatives in the forest and coastal areas of the subregion,

the development of an island marine ecotourism pilot still remains to be done. With strong national and state government support, and given its relatively accessible location, Mantanani offers an ideal opportunity to test new approaches in transitioning from unsustainable and exclusive island marine tourism development to a more sustainable and inclusive marine ecotourism model, in the process providing benchmarks, best practices and lessons learned that can help to guide sustainable and inclusive marine ecotourism development in the region. This is in line with the BIMP-EAGA Vision 2025 (BEV2025) that seeks to narrow the development gap between the BIMP-EAGA subregion and the rest of ASEAN by undertaking infrastructure, policy and agro-industry development initiatives designed to create a more resilient, sustainable, and economically competitive subregion.<sup>12</sup>

**Relevance/Alignment with Existing Plans:** The project is aligned with state, national, subregional and regional initiatives to promote ecotourism as a way of bringing sustainable new livelihood opportunities to more remotely located communities in forest, coastal and especially in island marine areas. The Asian Development Bank's BIMP-EAGA Community-Based Ecotourism Strategy (BECBES) 2011–2015 identified ecotourism as the major thrust of tourism development, given the area's rich natural and cultural heritage. The significance of ecotourism development is further underlined by BEV2025 that prioritizes tourism as one of the main sectors for development. The Malaysian National Tourism Plan includes ecotourism as a major segment for development, targeting 66 major ecotourism sites in the country, while the Sabah State Government's tourism strategies and plans have long been based on positioning it as a major global and regional ecotourism destination. While the proponents clearly recognize the value of ecotourism in creating sustainable and inclusive outcomes, and have been able to achieve considerable progress in the forest and coastal areas, in the island marine areas much still needs to be done to move towards a more sustainable and inclusive approach and outcome. Mantanani offers an opportunity to develop a new model for island marine ecotourism development based on close partnership between local communities and outside tourism developers, with a win-win outcome for local communities, developers, and the environment.

**Project Impact:** The impact of the project is seen as: “sustainable and inclusive small island marine ecotourism,” as indicated by the high quality of marine and terrestrial environment biodiversity, and the Mantanani community living well above the Malaysian poverty line of USD178.33 per month.<sup>13</sup>

**Project Outcome:** The main outcome of the project is a well-developed model island marine ecotourism destination providing best practices and lessons to guide similar developments in other locations of Malaysia, BIMP-EAGA and ASEAN, as indicated by the gazettelement of the Mantanani Marine Spatial Plan, and within this framework: (a) observance of the carrying capacity limits for overnight visitors (suggested to be no more than 300 visitors per night subject to finalization in carrying capacity studies); (b) at least 75% of local community employed in the resorts or indirectly involved in the Mantanani tourism supply chain; and (c) active rehabilitation, management and recovery of the Mantanani terrestrial and marine environment, as measured by biodiversity index indicators.

<sup>12</sup> Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA), Vision 2025, Asian Development Bank, (Circa 2017).

<sup>13</sup> [www.thepovertyline.net/malaysia/](http://www.thepovertyline.net/malaysia/)

**Expected Project Outputs:** To achieve the expected project outcome and eventual impact, the project will deliver four major outputs and related activities: (a) a sustainable Mantanani Marine Spatial Plan that will determine carrying capacities and land and marine use controls; (b) strong community participation in the Mantanani ecotourism supply chain; (c) supporting sustainable community and ecotourism infrastructure; and (d) higher quality ecotourism facilities and services, with capacity limits to suggested 300 beds subject to carrying capacity evaluations. Each main output is discussed in more detail below.

**Output 1: Sustainable Marine and Terrestrial Environment Management Planning Framework (Mantanani Marine Spatial Plan).** The preparation of a marine spatial plan draws its authority from the Policy Statements and Proposals relating to Marine Spatial Plans set out in the Sabah Structure Plan 2033 and, as such, it will comprise enforceable strategies and policies. There are a number of steps that will need to be undertaken to arrive at a Mantanani Marine Spatial Plan (MMSP):

- Undertake a preparatory process which involves: (a) identifying Mantanani Stakeholder Network, the Senior Stakeholder Group, and core group with authority and resources committed to the MSP process through site survey and stakeholder engagement, (b) defining and analyzing existing conditions by preparing a Situational Spatial Report on Mantanani (SSRM), including in the report a detailed assessment of how tourism is currently being undertaken, what challenges need to be addressed, and initial recommendations for the sustainable and inclusive development of tourism on Mantanani, (c) conducting further stakeholder engagement and vision-casting through individual meetings and workshops to complete the preparatory process, and to develop consensus on the main issues that are being faced by Mantanani as embodied in the SSRM Report; this stakeholder engagement will include private sector enterprises, particularly resort operators that have a strong track record with sustainable and inclusive operations.
- Establish future conditions and trends and designing the MMSP will involve: (a) defining and analyzing future conditions in detail and establishing an agreed-upon trend scenario covering trends and growth patterns across the terrestrial and marine context; (b) preparing two Future Spatial Scenarios; (c) preparing comprehensive development plan for tourism on Mantanani that takes into consideration the views of all stakeholders and establishes a sustainable and inclusive development trend following sustainable ecotourism destination criteria; (d) preparing a comprehensive range of GIS maps that will convey key information and plans spatially; (e) identifying a range of management measures and key performance indicators; and (f) conducting further stakeholder engagement and vision-casting through individual and group meetings with Mantanani stakeholders to arrive at agreement on the preferred trend scenario and its components and agreement on an appropriate Stakeholder Structure to manage the preparation of the MMSP.
- Prepare the MMSP for gazettment involving: (a) design of the MMSP working through the agreed Mantanani Stakeholder Structure to collectively develop the MMSP vision, goals, objectives, policies and proposals based upon the preferred trend scenario; (b) design of an agreed regular review process to assess the need of any changes to either the design of the Mantanani or the measures that have been established; and (c) secure State Cabinet approval of the implementation of the MMSP, and its gazettment.

**Output 2: Strong Community Participation in the Tourism Supply Chain.** Within the framework of the MMSP, the development of the necessary collaborative and partnership approach between the resort developers and community to enable greater participation in the tourism supply chain will involve: (a) preparing the stakeholder network to effectively plan, develop and operate sustainable ecotourism development based on the GSTC sustainable destination criteria that involve assessing stakeholder knowledge on the subject and closing knowledge gaps through stakeholder learning seminars; (b) undertaking a series of participative planning workshops with the stakeholder network to work out a strategy to develop, operate, promote, manage and monitor and evaluate Mantanani as an ecotourism destination following the GSTC criteria (see Appendix 4); (c) preparing and disseminating a knowledge product designed to inform all stakeholders of the agreed approach and next steps in implementation; and (d) establishing the Mantanani Foundation to undertake destination organization management functions, design and implement capacity and skills development programs with support of NGO mentors, engaged in marine and terrestrial conservation programs with support of NGOs such as Reef Check, enhance local community educational achievement, and design and implement related monitoring and evaluation activities and results reporting to stakeholders.

**Output 3: Development of Supporting Economic and Social Infrastructure.** Based on the ecological carrying capacity requirements set by the MMSP framework, recovery of operations and maintenance, and environmental, social, economic and financial viability, the development of the following infrastructure are needed: (a) all-weather public jetty and heliport and single point of entry control for visitors, with supporting daily ferry services to the mainland; (b) well-designed and interpreted circumferential and cross-island walking paths and bicycle paths leading to key attraction points; (c) closed-system water and waste water treatment, harvesting and recycling supported by water conservation systems in resorts and households; (d) renewable solar power energy generation and salt pond storage plant with underground power transmission system; (e) a closed solid waste management system involving construction of a materials handling center for sorting and sale of recyclable waste, production of organic fertilizer, and waste material-based handicraft production; (f) an upgraded telecommunications and internet connectivity system provided by existing supplier or new supplier; (g) on-island health care, emergency and evacuation facilities; (h) upgraded primary school facilities and learning tools, including language lab and computers for the computer room, and participation in the ASEAN Eco-School Program; and (i) implementation arrangements for operations and maintenance and cost recovery based on willingness to pay criteria. The main activities involved in delivering the above package of infrastructure projects are:

- infrastructure project scoping, design and feasibility evaluation and financing arrangements;
- procurement of infrastructure design and construction supervision contractor/s;
- infrastructure design, construction procurement, and construction supervision activities; and
- infrastructure project commissioning and operations and maintenance.

**Output 4: Upgraded and Redeveloped Resort Facilities and Services.** Subject to verification through the MMSP framework, and in the context of the ecotourism destination strategy agreed upon under Output 2, the upgrading of existing resort facilities with capacities limited

to a maximum of 300 beds, between RM1,300 and RM1,500 per person per night, involves the owners undertaking the following activities: (a) identify of market-based benchmark facility standards that should be adopted for upgrading or redeveloping the current resorts; (b) assess of current resort facilities against the benchmarks to determine what upgrading is required; (c) undertake market and financial feasibility evaluations to identify likely returns on investment on upgrading; and (d) implement upgrading and redevelopment of resort facilities and services on Mantanani. These are subject to feasibility, provision of fiscal and non-fiscal incentives and financial assistance by the public sector to support private sector upgrading.

**Project Target beneficiaries:** The primary target beneficiaries are the local community, particularly women, unemployed youth, persons with disabilities, and those young persons working outside Mantanani but willing to come back given decent employment and income opportunities. The secondary beneficiaries will be the family members of the community who will benefit through increased income, housing, education and health services. The tertiary beneficiaries are the resort developers and operators who will benefit from an ecotourism model that will substantially increase the sustainability and profitability of their tourism enterprises.

**Project Stakeholders:** The project stakeholders will be identified based on the stakeholder network and agreed Mantanani Stakeholder Structure under the MMSP. As the project is a convergence project between the national, state and district government agencies, it will have to engage the agencies responsible for planning, marine resources protection and management, transportation infrastructure planning and development, telecommunications, education, housing, land titling, health care, and transportation regulation and safety within the context of the MMSP. In the private sector, apart from the existing resort operators, stakeholders should include the off-island tour operators and agencies that intermediate the market for Mantanani tourism resort and homestay packages. Stakeholders will be engaged through a series of group and one-on-one consultations based on pre-prepared discussion papers setting out the scope of projects and innovative approaches to implementation; participation in project coordination and implementation units; and regular progress report meetings and consultations.

## Project Delivery Effectiveness





**Project Execution and Implementation Agencies:** The executing agency would be the Economic Planning Unit, in Putrajaya, and the implementing agency would be the Ministry of Local Government and Housing.

**Project Implementation Arrangements:** The establishment of an inter-agency public-private-community sector steering committee is proposed, comprising all relevant stakeholders and representatives of main beneficiaries at the national, state and local level, to review project implementation, provide feedback to the project coordinating and implementation units, and address concerns regarding the implementation of the project.

**Project Work Plan:** The project is expected to commence on 1 September 2017 and be completed by 31 December 2021. The timeline for each main output and associated activities is shown in the table.



**Table 2: Mantanani Islands and Marine Environment  
Ecotourism Destination Project**

#	Output/Activities	2017	2018	2019	2020	2021
<b>1.0</b>	<b>Sustainable Mantanani Marine Spatial Plan</b>					
1.1	Undertaking preparatory assessment (stakeholder identification, situational spatial analysis, and engagement)	—				
1.2	Define and analyse future conditions and establish an agreed trend scenario with stakeholder engagement	—				
1.3	Preparation of the full MMSP (trends analysis, mapping, tourism planning, management measures and KPIs, stakeholder engagement)		—			
1.4	Prepare the Mantanani Marine Spatial Plan and actively work for its gazettment		—			
<b>2.0</b>	<b>Community Prepared for Stronger Participation in the Tourism Supply Chain</b>					
2.1	Stakeholder knowledge assessment and tourism knowledge development program	—				
2.2	Separate and joint participative ecotourism planning workshops to agree strategy and action plan, maximize host community economic benefits, maximize benefits to communities, visitors and culture, and maximize benefits to the environment, while minimizing negative impacts		—			
2.3	Preparation/dissemination of related knowledge product on plan and opportunities for local people		—			
2.4	Establishment and operation of the Mantanani Foundation		—			
2.5	Design and implementation of skills, credit and NGO mentoring, education, biodiversity, and monitoring and evaluation programs by the Mantanani Foundation			—	—	—
<b>3.0</b>	<b>Supporting Sustainable Development Infrastructure</b>					
3.1	Infrastructure project design and feasibility evaluation and financing		—			
3.2	Procurement of infrastructure design and construction supervision contractor			—		
3.3	Infrastructure design, construction procurement and construction supervision works			—	—	
3.4	Infrastructure commissioning and operations and maintenance					→
<b>4.0</b>	<b>Upgraded and Redeveloped Resort Facilities and Services</b>					
4.1	Identification of market-based benchmark facility standards		—			
4.2	Assessment of current resort facilities against the benchmarks			—		
4.3	Market and financial feasibility evaluations			—		
4.4	Provision of national and state government fiscal and non-fiscal incentives and financial assistance			—		
4.5	Implementation of upgrading and redevelopment of resort facilities and services				—	

A key timeline for the implementation of the project is the gazettelement of the MMSP at the end of 2018 or in early 2019, as this provides the binding framework for all social, economic and environmental initiatives, including ecotourism and resort development.

**Project Risks:** The main risks to the successful execution of the project and mitigation strategies to minimize these are: (a) delay in obtaining agreements between stakeholders (sound preparation especially of stakeholders will help to mitigate this risk); (b) current resort operators unwilling to upgrade their facilities and support the cost of the Foundation, although the risk of this can be mitigated by tying cooperation to the provision of national government fiscal incentives, regularization of land occupancy, and land use controls that encourage higher standard eco-resort development and operation; (c) delay in project implementation due to administrative procedures, coordination issues, and flow of funds, while the risk of this can be mitigated through early clarification and simulation of procedures and requirements, and possible one-stop shop approvals and permitting processes and arrangements; and (d) delay in completing the gazettelement of the MMSP, requiring active follow-up and close coordination with the key agencies at the state and national level in order to minimize this risk.

**Results-Based Monitoring and Evaluation:** A results-based monitoring framework for the project impact, outcome and outputs in terms of the type of result, performance indicators, data sources, and main assumptions and risks is presented below.

**Project Impact:** The project impact is: sustainable and inclusive small island marine ecotourism, as indicated by high terrestrial and marine biodiversity, and with 99% of Mantanani community living above the Malaysian poverty line. Data sources to measure performance will be based on baseline biodiversity and poverty data prepared as part of the MMSP, and regular survey of these by the University of Malaysia. The achievement of the impact assumes that the MMSP is in place, that all stakeholders comply with the provisions of the MMSP and within this, the Mantanani Ecotourism Plan, and that biodiversity index surveys will be undertaken by the University of Malaysia. Lack of compliance could be mitigated through provision of incentives to comply.

**Project Outcome:** A planning framework that enables biodiversity recovery, strong community participation in tourism, supported by well-developed economic and social infrastructure and upgraded tourist facilities and services, as indicated by overnight and visitor volumes held 300 per day, with local communities holding 75% of jobs in resorts, and marine and terrestrial environment biodiversity index increases on MMSP-determined baselines. Data sources include arrivals data at single-entry jetty and resort establishments, annual household income surveys collected by the Mantanani Foundation, and annual measures of biodiversity index. The main assumption is that the Mantanani Foundation will have the necessary resources, that the tour operators are willing to comply with single entry point and cooperate in sharing data accurately, and that resources for annual biodiversity index surveys are available. The lack of resources could be mitigated through NGO participation while lack of compliance could be mitigated through various incentives.



**Project Outputs:** The main project outputs are: (a) the MMSP as indicated by gazettement of the MMSP; (b) a community prepared for greater participation in ecotourism supply chain as indicated by the presence of an agreed ecotourism destination strategy with Foundation in place, with 75% of households having at least two working-age persons provided with hospitality and ecotourism services skills training, and 50% of women heads of household provided with skills training and credit support; (c) supporting social and economic infrastructure, well-maintained and operated, with year-round access, as well as good water quality, improved sanitation and power, improved education and health services; and (d) upgraded and redeveloped resort facilities and services as indicated by higher quality of facilities and services generating around RM1,200 per visitor per day. Data sources will include exit skills training reports, monitoring and evaluation of household participation levels in the tourism supply chain by the Foundation, and regular survey of average daily rates by the Foundation. The main assumptions and risks are that: (a) the MMSP can achieve gazettement by end 2018 or early 2019; (b) stakeholders buy into and continue to implement the sustainable tourism destination criteria; (c) that there is cost recovery of infrastructure operations and maintenance; and (d) that existing operators will have the financial and technical capacity to operate higher quality tourist facilities and services.

**Project Sustainability:** Sustainability will be achieved through the support of the MMSP that will provide the necessary framework for the sustainable development of the terrestrial and marine environment. This will be supported by an ecotourism strategy (a key part of the MMSP) based on sustainable tourism destination criteria, with the Foundation to support capacity building, conservation, and destination organization programs and activities. Most importantly, the stakeholders, through the benefits they derive, will actively promote sustainable principles and practices in the context of the MMSP. The results and lessons learned from the project will be documented and shared through various knowledge dissemination media, and incorporated in policy and regulatory frameworks as well as in operations manuals for application in other marine-based ecotourism destinations in ASEAN, and the BIMP-EAGA subregion in particular.

## Project Safeguards

**Environmental Safeguards:** The main adverse environmental impacts and risks of the project are likely to be during construction and operation of the proposed economic and social infrastructure. The main impacts and mitigation strategies are summarized below:

**Construction Phase Impacts:** These include: (a) the potential impact on air quality; (b) noise pollution; (c) soil pollution and degradation; (d) pollution of surface, ground, and sea water; (e) disturbance to existing vegetation; and (f) potential negative impacts on local communities. These impacts are likely to be of short-term duration and of limited severity, with proper construction management and safeguards to ensure high standards in terms of dust control through frequent watering, centralization of fuel and oil storage with spill containment facilities, effective storage and removal of oil and chemical wastes from construction sites, use of noise suppressors on equipment, 100% treatment of all waste water, and rehabilitation of vegetation and of on- and off-site earthworks and quarries.

**Operations and Maintenance Phase:** In the operation phase, the potential adverse environmental impacts and risks of the project are: (a) the potential impact on long-term air quality; (b) noise pollution from operation of aircraft, vessels and vehicles; (c) soils pollution and degradation; (d) pollution of surface, ground, and sea water; and (e) potential negative impacts on local communities, including trafficking, drug abuse, and sexual exploitation. Adopting appropriate management strategies and safeguards consistent with the environmental impact management regulations of each country will be essential in mitigating these impacts and risks.

**Involuntary Resettlement:** It is anticipated that where project components (such as the public jetty, island walking and bicycle paths, power generation, health center, etc) require land acquisition, these will be subject to appropriate resettlement planning and compensation.

**Indigenous People:** Most of the population in Mantanani are from the Ubian tribe, a sub group of the Sama Bajau ethnic group in Sabah. They originated from Tawi Tawi, Philippines, in the early 1950s, just after WWII, and settled mainly along the coastal and islands in the west, north and northeastern parts of Sabah. Over the years, the Ubians have grown to become the largest ethnic group within the Bajau community. The majority of coastal Ubians are fishermen and live a subsistence life with relatively low income. Their literacy rate is low and many settlers are still considered undocumented. Ubians from Mantanani arrived on the island in the 1950s and the majority have been assimilated into the fabric of Sabah's Bajau ethnic group. Although they still maintain their unique language, many speak Malay fluently.

## Project Cost and Funding

**Indicative Project Cost:** The estimated budget for the project, divided between the public sector (which will bear most of the costs) and the private sector, is shown below.

This indicates that the public sector component of the project cost is likely to be in the order of USD16.1 million, while the private sector component is likely to be around USD50.4 million. A more detailed basis for the cost estimates is set out in Appendix 5.

**Project Financing and Cost Recovery:** The public sector component of the project should be financed by federal/state/district government agencies, or through a special budget provision from the federal and/or state governments, possibly supported by loans. The private sector financing task will have to be primarily equity- and debt-based, with incentives from the Federal Government under MIDA, and mortgage assistance through the Special Tourism Fund offered by the Ministry of Tourism and Culture Malaysia.

**Table 3: Estimated Public Sector Project Budget in USD**

Public Sector Project Components	Estimated Budget (USD)	% Share of the Total Budge
1. Preparation/Gazettement of MMSP including workshops, surveys, consultants, travel and accommodation	300,000	1.9%
2. Preparation of Ecotourism Strategies and Programs for Enhanced Community Participation including workshops and trainings consultants and travel and accommodations	452,900	2.8%
3. Development of Sustainable Community and Ecotourism Infrastructure including mitigation costs	14,437,900	89.6%
4. Equipment/materials/reports/dissemination	50,000	0.3%
5. Travel and Accommodation	75,000	0.5%
6. Contingencies (5%)	806,100	5.0%
Total	16,121,900	100.0%
<b>Private Sector Investment:</b>		
7. Upgrading of the Quality of Exisitng Resorts	50,400,000	100.0%

## APPENDIX 1

# Mantanani Tourism Demand and Supply Profile

### Tourism Resources

The following diagram adopted from Reef Check identifies the tourism resources of Mantanani's marine environment.<sup>1</sup>

Aside from the fine white sand beaches and clear waters, marine visits focused on island-hopping, diving and snorkeling are the main tourism attractions of Mantanani.

Figure A1.1: Mantanani Islands Marine Environment



<sup>1</sup> Reef Check Malaysia. 2017. *Mantanani Islands Marine Conservation Area (MIMCA) Management Plan*.

## Supply of Tourist Facilities

There are currently 12 resorts with an estimated 80 rooms, and 14 homestay establishments with 56 rooms, all on the main island. Seven of the resorts offer overnight accommodation comprising mostly small beach two-bed cottages, and charge between RM180 and RM700 per head per night on an all-inclusive basis, including transportation, accommodation, meals, snorkeling and in some cases diving activities; while the homestay establishments charge between RM80 to RM100 per night inclusive of meals. Rasa Sayang Resort is planning to increase its current total capacity of 26 rooms to 50 rooms, thus taking the total main island resort room count to 95 in 2017. While five resorts take day visitors only, the overnight resorts also take day-trippers, with all-in rates including boat transportation, meals and activities of between RM180 and RM220 for snorkeling and up to RM500 for diving. Most of the resort operators have the capacity to take between 100 and 150 visitors per day.

The peak months run from July to December, with average occupancies in the seven resorts above 90%, except for the homestay establishments that receive very little utilization (which the homestay coordinator advised to be around 1 to 2 guests per month per room). Occupancies in the resorts drop to an average room occupancy of around 30% during the monsoon months of January to May, when weather conditions make access to Mantanani unreliable, with the homestay establishments having almost no guests during that time of the year, for an overall average of 62%. The typical length of stay is 1 to 2 nights, with an average of 2.5 persons per occupied room.

## Estimated Tourism Volumes

While data on the volume of overnight and day visitor volumes is currently not collected and is a major data gap that needs to be filled, it is possible to impute this from the reported number of rooms, length of stay, average number of persons per occupied room, and average room occupancy in the resorts and homestays for 2016, and from the reported ratio of overnight guests to day visitors. Based on this methodology, it is estimated that in that year the resorts probably received around 29,120 overnight guests, while the homestay establishments probably attracted 1,344 guests, with total overnight visitor estimate of 25,344 guests. Based on anecdotal evidence from the operators interviewed during the island visit, it appears that for every overnight visitor, there are roughly 5 day visitors. It is estimated therefore that Mantanani received a total of around 126,720 day visitors in 2016, with total day and overnight visitors estimated at around 152,000. The average number of visitors per day throughout the year is thus estimated at 417 visitors per day, and based on anecdotal evidence from operators, the volume of visitors ranged from 10 to 15 on the lowest day of the year, to over 1,000 on the busiest day of the year.

## Characteristics of Tourist Demand

Operators report that the People's Republic of China accounts for over 60% of the overnight and day visitor market and continues to grow at double-digit rates. Other markets are South Koreans, Peninsula Malaysians, and a decreasing volume of Europeans and Japanese. Snorkeling, swimming, diving, island hopping, sunbathing, and a limited amount of bird

watching are the main activities undertaken by visitors. A survey of 40 tourists conducted by Reef Check between May and September 2016 found that:

- around 50% came from the People's Republic of China, 25% from Europe, 17.5% from Malaysia, 5% from Australia, and 2.5% from the United States, with the balance from various other countries, mainly in the Asia and the Pacific Region;
- the age profile of visitors is young, with around 60% of tourists aged between 21 and 30, while a further 35% were aged between 31 and 40;
- the primary reason for visiting was to engage in marine sports such as snorkeling and diving (65%), and relaxing on the beach (32.5%);
- the average length of trip was 1 to 2 days, with overnight visitors staying 1 night (62.5%), and 2 nights (25%), and with almost all visiting for the first time;
- most did not have anything adverse to say about their visit to Mantanani, although 16 respondents mentioned “unclean beach, dirty village, and rubbish” as issues, while poor food and lack of electricity was mentioned by a hand-full of respondents;
- despite some negative comments, 85% of respondents indicated general satisfaction with their visit;
- when asked to indicate, based on a number of criteria, how their visit to Mantanani compared to similar island visits undertaken elsewhere, most respondents reported that Mantanani was more or less equal except in the areas of cleanliness of beaches (while few appeared to be aware of the poor condition of the coral reefs), and
- around 62.5% indicated that they would be willing to pay a tourism fee of between RM5 and RM50 to support improvements in Mantanani.

As noted in the Reef Check Draft Management Plan, Mantanani tourism comprises day trip and overnight tourist visitors who wish to engage in marine recreation and sport activities. Most visitors appear to be happy with their visit to Mantanani, but see waste management as an issue to address. Most visitors support a levy on tourists of between RM5 and RM50 to support the management of Mantanani and its marine environment.

## Estimated Tourism Spending

Based on the estimated volume of day trip and overnight arrivals, and given the all-inclusive nature of the package price, it is possible to obtain an indication of the range of expenditure generated by tourists to Mantanani and its tour and resort operators. As indicated in

**Table A1.1: Estimated Tourism Operator's Gross Income**

Type of Visitor	Average Spend per Capita in RM		Estimated Number of Visitors	Estimated Income in RM		
	Low	High		Low	High	Median
Homestay Overnight Visitors	80	90	1,344	107,520	120,960	114,240
Resort Overnight Visitors	250	700	24,000	6,000,000	16,800,000	11,400,000
Day Visitors	100	480	126,720	12,672,000	60,825,600	36,748,800
Total			152,064	18,779,520	77,746,560	48,263,040

Source: Based on Interviews with Operators and Reef Check Operator Survey.

the following Table, Mantanani's day and overnight visitors are estimated to have spent between RM18.8 million and RM77.8 million in 2016, with most likely expenditure of around RM48.3 million. As much of this spending occurs outside Mantanani, its impact on the local economy is expressed mainly through households that have members that are employed in Mantanani's tourism supply chain—principally boatmen, cleaners, kitchen hands, and handymen.

### Tourism Generated Employment

Of the estimated 160 persons directly employed in the overnight and day resorts, fewer than 32 or 20% appear to be sourced from the local community. It is noted that the 14 homestay establishments employ family members as cooks, housekeepers, food servers, cleaners and local guides only when they have guests—1 to 5 times a month. Those from the local community employed in the resorts typically work as boatmen, kitchen hands, food servers, handymen, cleaners and groundkeepers. Only a few from the community, mostly young women, work in the front office and administrative areas of the resorts. The main reasons given for the low local employment ratio are low education levels, poor language skills, inability to undertake sustained employment, and lack of a sufficient pool of young people interested in working in the tourism sector. In the homestay establishments, the main problem—despite the presence of a homestay association—is the inability of the owners to work together on the critical issues of improving broadband connectivity to enable them to more effectively market their establishments.

It is noted that in many other destinations, tourism provides significant opportunities for alternative livelihoods directly or indirectly, through the tourism supply chain, in restaurant operation, housekeeping, property maintenance, and transport services, among others. It also supports participation in small enterprises, such as cafés, restaurants, wellness therapy services, local transportation, and waste recycling. There are opportunities to work as local guides, reef guardians, and wildlife wardens, handicraft makers, vegetable and poultry producers, among many others. With appropriate support from the community, private tourism developers and the public sector, Mantanani should be able to provide such employment and livelihood opportunities for its local population.

## APPENDIX 2

# Land Tenure on Mantanani

Land tenure on Mantanani Besar is not clear. At a meeting with the land office supervisor and assistant district officer in Kota Belud they stated that the Land Office in Kota Belud did not have a list of land titles for Mantanani Besar. However, they did confirm ownership of the main resort operations, as noted in the Table.

Moreover, no specific land title details on official use and whether country lease or native titles were provided in respect of the four land owners mentioned. Significantly, the officials confirmed that no development plans had been submitted to the Kota Belud District Council, which is the requisite body for land use approvals for Mantanani. The officials stated that the other resort operators, including the four larger resorts detailed above, operate on a TOL basis. But, again no details could be provided.

**Table A2.1: Land Use and Owners**

	Land Used By	Land Owner
1	Bembaran Beach Resort Mantanani	Datuk Karim Bujang
2	Rasa Sayang Mantanani Lodge	Tan Sri Pandikar Amin Mulia
3	Mantanani Dream Holiday Sdn. Bhd.	Datuk Musbah
4	Mari Mari Backpackers Lodge	Traverse Tours Sdn Bhd
5	Palm Beach Resort	–
6	Touch Borneo Resort and Tour Sdn. Bhd.	Datuk Richard Bainon
7	Green House Lodge	–
8	Sayang Sayang Hostel Mantanani Island	Traverse Tours Sdn Bhd
10	Low Price Holidays	–



## APPENDIX 3

# Step by Step Guide to the Preparation of an Integrated Marine Spatial Plan for Mantanani

The preparation of a marine spatial plan draws its authority from the policy statements and proposals relating to marine spatial plans set out in the SSP2033 and, as such, it will comprise enforceable strategies and policies. Indeed, a marine spatial plan is the stipulated approach. There are three main steps that need to be completed in the preparation of the MMSP, as follows:

### Step 1: A preliminary process that includes the following activities:

- Identify Mantanani stakeholders that will make up the Mantanani Stakeholder Network. Also, decide which stakeholders will comprise the Senior Stakeholder Mantanani Group, a core group with authority and resources committed to the MMSP process.
- Define and analyze existing conditions by preparing the SSRM both in terms of land-based spatial planning (Sabah Structure Planning and Local Development Planning) and marine spatial planning, which will impact the marine eco-system. This will include a detailed assessment of how tourism is currently being undertaken and will set out any challenges and make initial recommendations for the sustainable and inclusive development of tourism on Mantanani.
- Conduct actual stakeholder engagement and vision-casting through individual meetings and workshops, resulting in (a) agreement to complete the process of preparing and implementing the MMSP, (b) establishment of a Mantanani Stakeholder Network as a vital step for the completion of the MMSP, and (c) consensus on the main issues that are being faced by Mantanani, which will be incorporated in the SSRM Report.
- This stakeholder engagement will include private sector enterprises, particularly resort operators that have a strong track record with sustainable and inclusive operations.

### Step 2: Obtain funding to complete the Mantanani process

- Funding for the public sector investment projects should be derived from the 11th Malaysian Plan. Where funding cannot be secured for the entire preparation of the MMSP, the SSRM technical report that will be produced in Step 1 (that defines and analyzes existing conditions and the need for the MMSP) will be used as the basis in the preparation of funding and resource mobilization proposals to donors.

### Step 3: Establishing future conditions and trends and designing the MMSP

- Define and analyze future conditions in detail and establish an agreed trend scenario. This will involve the preparation of a comprehensive development plan for tourism on Mantanani that takes into consideration the views of all stakeholders and establishes a sustainable and inclusive development trend. A comprehensive range of GIS maps will convey key information and plans spatially. A range of management measures and key performance indicators will also be established to guide in the monitoring and enforcement of the Mantanani scheme. These will be derived from the action plans that are created in response to the trend analysis and include both spatial and temporal goals and objectives.

### Step 4: Prepare the Mantanani Marine Spatial Plan for gazettment

- Design, prepare and approve the MMSP, which will provide comprehensive guidelines to implementing, managing, monitoring and enforcing the MMSP; a review process will also be defined at agreed intervals to assess whether, in the light of actual experience, any changes are required to either the design of the MMSP or the measures that have been established through the plan.
- Secure State Government approval through the State Cabinet of the implementation process of the MMSP.
- Submit the MMSP for gazettment.

## APPENDIX 4

# Criteria for Sustainable Tourism Destinations

In its preamble to sustainable criteria for destinations,<sup>1</sup> the Global Sustainable Tourism Council states: “To satisfy the definition of sustainable tourism, destinations must take an interdisciplinary, holistic and integrative approach which includes four main objectives: (a) demonstrate sustainable destination management, (b) maximize social and economic benefits for the host community and minimize negative impacts, (c) maximize benefits to communities, visitors and cultural heritage and minimize impacts, and (d) maximize benefits to the environment and minimize negative impacts.”

The GSTC criteria are designed to be used by all types and scales of destinations. In this context, GSTC identified four primary criteria: (a) a sustainable management approach; (b) maximizing economic benefits to host communities, while minimizing negative impacts; (c) maximizing benefits to the communities, visitors, and culture, while minimizing negative impacts; and (d) maximizing benefits to the environment and minimizing negative impacts. The key indicators in each of the four primary criteria are set out below:

- A. Preparing and implementing a sustainable development strategy that includes the following elements:
- a destination management organization
  - inventory of tourism assets
  - monitoring of tourism volume profile and activity
  - seasonality management
  - climate change adaptation
  - planning regulations and controls
  - access for all, including persons with disabilities
  - legal property acquisitions
  - visitor satisfaction
  - sustainability standards assessment and certification
  - safety and security and crisis and emergency management
  - destination promotion

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<sup>1</sup> [www.gstccouncil.org/images/Dest-CRITERIA\\_and\\_INDICATORS\\_6-9-14.pdf](http://www.gstccouncil.org/images/Dest-CRITERIA_and_INDICATORS_6-9-14.pdf), 6 May 2017.

- B. Maximizing economic benefits to the host community and minimizing negative impacts will involve:
- active and regular economic monitoring
  - providing local community career opportunities
  - inviting public participation and taking into account local community opinion
  - ensuring local community access to natural and cultural sites
  - undertaking regular tourism awareness and education programs
  - active prevention of exploitation of vulnerable groups in the community
  - support for community initiatives and programs
  - support for local entrepreneurship and fair trade arrangements
- C. Maximizing benefits to the communities, visitors, and culture, while minimizing negative impacts by:
- protecting attractions and tourism resources
  - undertaking active visitor management such as encouraging proper visitor behavior
  - promoting cultural heritage protection and site interpretation
  - protecting intellectual and cultural property
- D. Maximizing benefits to the environment and minimizing negative impacts by:
- identification and participation in the management of environmental risks
  - active participation in protection of sensitive environments and wildlife protection
  - active management of greenhouse gas emissions
  - adoption of energy conservation programs
  - active water management and conservation as well as ensuring water security for local communities and water quality monitoring
  - wastewater management and recycling
  - solid waste reduction and recycling
  - reducing light and noise pollution
  - operating low impact clean air transportation

These criteria should be incorporated into the MMSP, the proposed Foundation that would be responsible for these programs, including the destination management organization functions, and into the physical structures and operational components and procedures of the upgraded and redeveloped resorts.

The development strategy and concept for Mantanani should seek to reflect and incorporate these criteria leading to certification as a GSTC-accredited destination.

## APPENDIX 5

# Estimated Project Budget

### Preparation of the Mantanani Marine Spatial Plan

The cost of this is estimated at USD300,000, based on the cost of the marine spatial plan that is currently being developed for the Semporna Priority Conservation Area in Sabah. In the case of Mantanani, this cost includes:

- a Town and Marine Tourism Planner for six months on an intermittent basis
- a Tourism Planner for three months on an intermittent basis
- a Green Growth Planner for three months on an intermittent basis
- an Ecosystem Planner three months on an intermittent basis
- several stakeholder workshops, survey equipment, mapping and GIS database, and production and distribution of documents

### Preparation of Ecotourism Strategies and Programs

The estimated budget for the preparation of the ecotourism strategies, setup of the Mantanani Foundation, and first year of operations including its community participation, conservation and destination management organization programs, is shown below.

As noted in the Table, the delivery of this output is estimated to require a budget of around USD452,900.

### Sustainable Infrastructure Package Component

The basis for the initial budget estimate for the package of infrastructure for Mantanani is set out in the following Table.

As noted, it is estimated that the package of 8 sub-projects is around USD14.4 million of which the energy, public jetty, and water and waste water system are the main cost components.

### Indicative Cost of Upgrading Existing Resorts to 4–5 Star Standard

Given the current nature and quality of facilities on the island, only the Borneo Touch Resort is considered suitable for upgrading, while the other would essentially have to be redeveloped, with an additional 50 or so units provided to reach a total capacity of 150 units with around 300 beds.

Table A5.1: Estimated Budget for Ecotourism Strategies and Implementation Programs

Ecotourism Strategies and Programs		Unit Cost Parameter	Units	Cost/Unit in USD	Total Base Cost	+ Soft Costs (Design, Facilitation, Contingency, etc. 30.0%)	Total Budget in USD
1	Survey to assess current stakeholder knowledge and understanding on ecotourism, conservation, etc.	Survey	3	2,000	6,000	2,571	8,571
2	Learning Seminars on ecotourism and conservation	Seminars	10	2,000	20,000	8,571	28,571
3	Participate Planning 2-day Workshops						
	– Separate	Workshops	3	2,000	6,000	2,571	8,571
	– Joint	Workshops	5	2,000	6,000	2,571	8,571
4	Production of report and knowledge product	Reports	300	10	3,000	1,286	4,286
5	Establishing the Mantanani Foundation						
	– Incorporation	Unit	1	5,000	5,000	2,143	7,143
	– Secretariat (First Year for Executive Dir., Secretary, Program Officer	Unit	1	85,000	85,000	0	85,000
	– Program budget	Unit	1	100,000	100,000	0	100,000
	– Office rental and equipment	Unit	1	25,000	25,000	0	25,000
6	Design and implementation of Foundation programs:						
	– destination management activities (first year)	Unit	1	75,000	75,000	32,143	107,143
	– capacity building for participation in ecotourism	Trainings	10	2,500	2,500	10,714	35,714
	– biodiversity conservation	Unit	1	20,000	20,000	8,571	28,571
	– monitoring and evaluation and reporting	Unit	1	4,000	4,000	1,714	5,714
<b>Total</b>					<b>380,000</b>	<b>72,857</b>	<b>452,857</b>

Table A5.2: Estimated Budget for Mantanani Sustainable Infrastructure Components

#	Ecotourism Strategies and Programs	Unit Cost Parameter	Units	Cost/Unit in USD	Total Hard Cost	Soft Costs (Design, Supervision, Permits, FF&E, Contingency, etc. 30.0%)	Total Budget in USD
1	Public jetty and helipad with single point of entry control for visitors with supporting daily ferry services to the mainland	Area m <sup>2</sup>	500	5,000	2,500,000	1,071,429	3,571,429
2	Well signed and interpreted circumferential and cross island walk and bicycle way leading to key attraction points	Lineal m based on 2m wide path	3,500	100	300,000	128,571	428,571
3	Closed system water and waste water treatment, harvesting and recycling supported by water conservation systems in resorts and households	Cost/m <sup>3</sup>	1,500,000	1	1,500,000	642,857	2,142,857
4	Renewable solar power energy generation and salt pond storage plant with underground power transmission system	Cost/MW	3	2,000,000	5,000,000	2,142,857	7,142,857
5	Closed solid waste management system involving construction of a materials handling center for sorting and sale recyclable waste, production of organic fertilizer, and waste material-based handicraft production	Cost/m <sup>3</sup> of waste	6,150,250	0	307,513	131,791	439,304
6	Upgraded telecommunications and internet connectivity system provided by existing supplier or new supplier	Tower Unit	1	300,000	300,000	128,571	428,571
7	On-island health care, emergency and evacuation facilities	Cost/m <sup>2</sup>	500	254	126,977	54,419	181,395
8	Upgraded primary school facilities and learning tools including language lab and computers for the computer room, and participation in the ASEAN Eco-School Program	Cost/m <sup>2</sup>	500	144	72,035	30,872	102,907
<b>Total Works Budget</b>					<b>10,106,524</b>	<b>4,331,367</b>	<b>14,437,892</b>
9	Estimated Annual Operations and Maintenance costs for	%/Capex/p.a.	5.0%				<b>721,895</b>

Source: Based on Langdon & Seah 2016 cost data for Kuala Lumpur for school and medical facility construction converted to USD at 4.3 escalated by 5% p.a. to 2017. Other costs based on estimates prepared by consultant based on previous experience with similar projects.

**Table A5.3: Estimated Budget for Resort Upgrading and Redevelopment in USD**

Cost Components	Number	Area m <sup>2</sup>	Floor Area m <sup>2</sup>
<b>(a) Total Units for Upgrading</b>			
Bungalows	50	75	3,750
Public Areas			1,875
Back-of-the-House			625
Total Renovation Area m <sup>2</sup>			6,250
Base Const. Cost/m <sup>2</sup>	Per m <sup>2</sup>	954	5,963,672
FF&E/m <sup>2</sup>	Per m <sup>2</sup>	473	2,953,125
Preopening Costs as % of Const Cost		20.0%	1,192,734
<b>Estimated On-Completion Cost</b>			<b>10,109,531</b>
<b>Cost Per Unit</b>			<b>202,191</b>
<b>(b) Total Units for Redevelopment</b>			
Total Units for Redevelopment	100		8,750
– Rooms	40	50	2,000
– Suites	30	75	2,250
– Villas	30	150	4,500
Public Areas @ 30% of total space			4,375
Back of the House @ 10% of total space			1,458
Total			14,583
Base Const. Cost/m <sup>2</sup>	Per m <sup>2</sup>	1,908	27,830,469
FF&E/m <sup>2</sup>	Per m <sup>2</sup>	472.5	6,890,625
Preopening Costs as % of Const Cost		20.0%	5,566,094
<b>Estimated On-Completion Budget</b>			<b>40,287,188</b>
<b>Cost Per Unit</b>			<b>402,872</b>
<b>Grand Total (a) and (b)</b>			<b>50,396,719</b>

Source: (a) Area ratios based on typical ratios for upper mid to top tier resorts, (b) costs based on Langdon & Seah Cost Data for mid to top tier hotels in Kuala Lumpur.

Broad area and costs assumptions for upgrading and redevelopment have been made for 150 units (50 for upgrading, and 100 for redevelopment). Unit areas, public areas, and back of house spaces have been based on typical areas for top-tier resort properties in Southeast Asia. The cost estimates, including for construction, mechanical and electricals and hydraulics, and furnishings, fittings and equipment, have been based on Langdon & Seah typical costs data for top-tier hotels in Kuala Lumpur. The preopening expenses, or soft costs, have been based on typical ratios of these relative to construction costs. As noted in the adjacent Table, it is estimated that around USD50.4 million might be required to bring existing and new facilities to the desired top-tier standard ready for operation by 2022.



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