



PROJECT DOCUMENT

Republic of Seychelles

United Nations Development Programme

Global Environment Facility

**Full Project: “Mainstreaming Biodiversity Management
Into Production Sector Activities”**

Proposal ID: 00045015, Project ID: 00053107, PIMS: 2053

Isolated from the continents for 65 million years, the fauna and flora of the Seychelles have evolved into unique forms with ancient Gondwanan lineage. The archipelago is a repository of globally important terrestrial diversity. It is also a storehouse of marine biodiversity. The Seychelles is part of one of the major biodiversity hotspots in the world: Madagascar and the Indian Ocean Islands. Its biodiversity is at risk of extirpation, and in some instances outright extinction, from a variety of human induced pressures. Seychelles faces the typical constraints of a SIDS, with its small land area and population, remoteness from major markets, limited natural resources and environmental vulnerability. Its most important assets are the truly rare beauty of the environment, and a significant fishery resource including pelagic and various coastal stocks. Biodiversity is the base upon which the two major economic sectors – tourism and fisheries – have developed. This makes the conservation and sustainable use of biodiversity of vital importance for the country’s sustainable development. Seychelles is a frontrunner in environmental management in the region – one of the success stories has been the effective partnerships developed between tourism operators and NGOs for the eradication of invasive alien species and the restoration of small islands. Seychelles’ ecosystems and biodiversity are relatively intact compared to that of many other islands, but development pressures are expected to increase substantially. Past efforts at biodiversity conservation have focused on protected areas, but the major threats are associated with the main production sectors. The main threats stem from over fishing, tourism, and physical infrastructure development. This project differs from past programs by taking a sector-based approach that seeks to integrate biodiversity conservation into the day-to-day operations of the main production sectors. Barriers to this integration include insufficient capacities at the systemic and institutional levels, resource tenure and access rights, and insufficient know-how for sustainable ecosystem management. The project will: a) strengthen the systemic and institutional capacities for mainstreaming biodiversity management; b) develop methods and means for integrating biodiversity into artisanal fisheries management; and c) make biodiversity conservation a routine part of business operations in the tourism sector.

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LIST OF ACRONYMS AND ABBREVIATIONS

AG	Attorney General	MEPE	Ministry of Economic Planning and Employment
BD	Biological Diversity (Biodiversity)	MEY	Ministry of Education and Youth
CBD	Convention on Biological Diversity	MNP	Marine National Park
CCA	Common Country Assessment	MPA	Marine Protected Area / Marine Parks Authority
CCF	Country Cooperation Framework (UNDP)	MFA	Ministry of Foreign Affairs
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora	MISD	Management Information and Statistics Division
COI	Commission de l'Océan Indien	MLGCS	Ministry of Local Government, Culture and Sports
COMESA	Common Market for Eastern and Southern Africa	MLUH	Ministry of Land Use and Habitat
CPUE	Catch per Unit Effort	MNA	Member of the National Assembly
DA	District Administrator	MOF	Ministry of Finance
DMC	Destination Management Centres	MOU	Memorandum of Understanding
DOE	Department of Environment	MSP	Medium Sized Project
DOF	Department of Finance	NBSAP	National Biodiversity Strategy and Action Plan
DONR	Department of Natural Resources	NC	Nature Conservation (Division of MENR)
DOTT	Department of Tourism and Transport	NCSA	National Capacity Needs Self Assessment
EEZ	Exclusive Economic Zone	NEAC	National Environment Advisory Council
EIA	Environmental Impact Assessment	NGO	Non-Governmental Organization
EIS	Environmental Information System	NPTS	Nature Protection Trust Seychelles
ENGO	Environmental Non-Governmental Organization	NS	Nature Seychelles
EMPS	Environment Management Plan of Seychelles 2000-2010	NTZ	No Take Zone
EOP	End of Project	OIE	Office International des Epizooties (World Animal Health Organisation)
EPA	Environmental Protection Act (1994)	PA	Protected Areas
EU	European Union	PAT	Plan d'Aménagement du Territoire (Land Use Plan)
FAO	Food and Agriculture Organization	PCA	Plant Conservation Action Group
FBOA	Fishing Boat Owners Association	PMU	Project Management Unit
FFEM	Fond Francais de l'Environnement Mondial	PPS	Policy Planning & Services (Division of MENR)
GDP	Gross Domestic Product	PSC	Project Steering Committee
GEF	Global Environment Facility	PUC	Public Utilities Corporation
GIS	Geographic Information System	SR	Seychelles Rupee
GISP	Global Invasive Species Programme	SADC	Southern Africa Development Community
GOS	Government of Seychelles	SBC	Seychelles Broadcasting Corporation
GCRMN	Global Coral Reef Monitoring Network	SBS	Seychelles Bureau of Standards
GVI	Global Volunteer Initiative	SCCI	Seychelles Chamber of Commerce and Industries
IBRD	International Bank for Reconstruction and Development (World Bank)	SCMRT	Seychelles Center for Marine Research and Technology
IAS	Invasive Alien Species	SEYMEMP	Seychelles Marine Ecosystem Management Project
ICS	Island Conservation Society	SFA	Seychelles Fishing Authority
ICRAN	International Coral Reef Action Network	SHTA	Seychelles Hospitality and Tourism Association
ICZM	Integrated Coastal Zone Management	SIB	Seychelles Investment Bureau
IDC	Island Development Company	SIDS	Small Island Developing States
IMO	International Maritime Organization	SIF	Seychelles Island Foundation
IMPASP	Integrated Marine Protected Area Systems Plan	SLM	Sustainable Land Management
IOC	Indian Ocean Commission	SMB	Seychelles Marketing Board
IOTC	Indian Ocean Tuna Commission	SWIOFP	South West Indian Ocean Fisheries Project (GEF-UNDP)
IPPC	International Plant Protection Convention	TCPA	Town and Country Planning Act
ISO	International Standards Organisation	TPR	Tripartite Review (UNDP)
IUCN	World Conservation Union	UNDP	United Nations Development Programme
LIS	Land Information System	UNEP	United Nations Environment Programme
LME	Large Marine Ecosystem	WIOLab	Western Indian Ocean Land based activities (GEF-UNEP Project)
LUNGOS	Liaison Unit for NGO's	WIOMSA	Western Indian Ocean Marine Science Association
MASMA	Marine Science for Management	WTO	World Tourism Organization; also : World Trade Organisation
MCSS	Marine Conservation Society, Seychelles	WWF	World Wide Fund for Nature
MDG	Millennium Development Goal		
MENR	Ministry of Environment and Natural Resources		

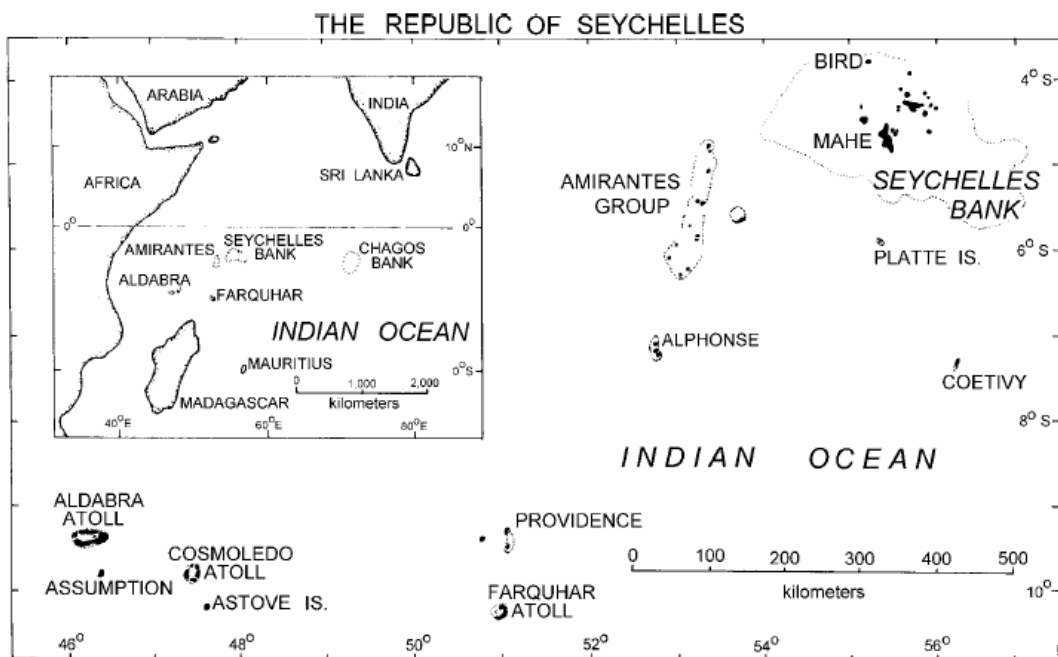
The official exchange rate in February 2006 is 5.6 Seychelles Rupees (SR/US\$)

PART I-A: Situation Analysis

1A.1 Environmental Context

1. The Seychelles is an island archipelago in the Western Indian Ocean located between 3 and 10 degrees south of the equator and between longitude 46 and 57 degrees east, (see Map 1). It has a total land mass of 455 square kilometers, and an Exclusive Economic Zone (EEZ) covering 1.374 million square kilometers. Seychelles consists of 155¹ islands, of which 42 are granitic and the rest of coralline origin. The main granitic islands, also known as the inner islands, in descending order of size, are Mahé, Praslin, Silhouette and La Digue. The main outer islands are, from North to South, Bird, Denis, the Amirantes group, Alphonse, Coetivy, and the Aldabra, Cosmoledo and Farquhar groups. Map 1 shows the physical location of the Seychelles archipelago, while Map 2 (overleaf) shows the location of the granitic islands.

Map 1. Location of the Seychelles Archipelago



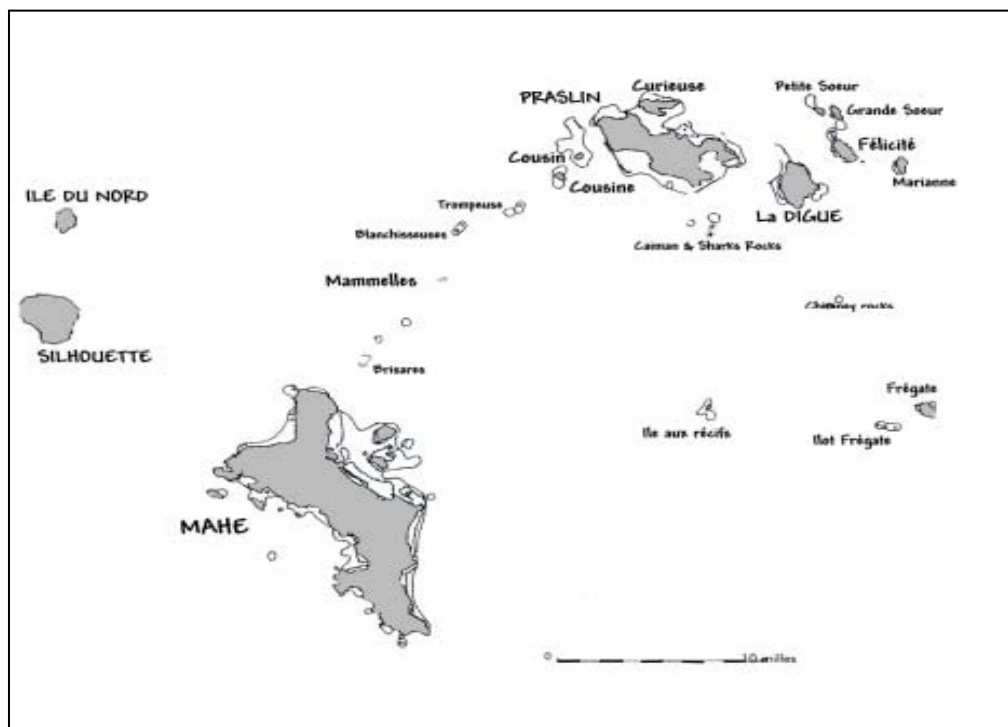
2. The climate is equatorial with an average rainfall of 2,200 mm. Humidity is uniformly high, and mean temperatures at sea level range from 24°C to 30°C. The prevailing winds bring the wet northwest monsoon from December to March and the drier southeast monsoon from May to October. Climatic conditions, however, vary dramatically between islands, mainly in relation to their altitudes and positions; the mean annual rainfall in the country diminishes on a trajectory from the north-eastern to the south-western island. Rainfall can be as high as 5,000 mm per year on the top of Morne Seychellois (900 m.) on Mahé and as low as 867 mm on the coralline island of Assumption (Walsh 1984). The main granitic islands lie to the north of the West Indian Ocean cyclone belt, but they can suffer storm surges from cyclonic activity to the south. Seychelles lies in the South Equatorial Current. This current is an important forcing system for the Agulhas and Somali Currents Large Marine Ecosystems along the Eastern African coastline.

3. The main terrestrial habitats of the granitic islands are; a) beach and dune vegetation; b) lowland and coastal forests up to 200-300m; c) intermediate forests from 200 to 500m altitude; d) granite inselbergs or “glacis” outcroppings; and e) mountain mist forests over 400-500m. On the coralline islands, the higher parts are characterised by a mixed scrub vegetation. Where sea water commonly penetrates the limestone, the Pemphis thicket type is commonly found. Coastal habitats include a variety

¹ A total of 155 islands and islets are named in the Seychelles Constitution (1993). The Granitic islands comprise of 42 islands, the Amirantes group, 29, the Farquhar group, 13, Aldabra group, 67, with Coetivy, Platte, Denis and Bird amount to 155. In many documents a number of 115, or “over 115” islands is quoted. This includes amalgamations of different groups of islands / islets, e.g. the African Banks, Cosmoledo and Farquhar atolls.

of wetland types, rocky shores and sandy shores. Marine habitats include 1,690 km² of reef² habitats that may be broken down into three types: a) fringing reef; b) atolls; and c) platform reefs. Offshore environments include submarine plateaux.

Map 2. Inner Granitic Islands



1A.2 Global Significance of Biodiversity

4. Madagascar and the Indian Ocean Islands Region, to which Seychelles belongs, has been classified as one of the world’s “hottest biodiversity hot spots³”. The unique biodiversity of Seychelles has developed largely because of its long geological history of isolation, allowing evolution to follow its own course in relative isolation from the continents. The granitic islands are ancient remnants of Gondwanaland and have been separated from the continental landmasses of Africa and the Indian sub-continent for more than 65 million years. The granitic islands are a repository of over 80 endemic species of flowering plants, 10 endemic species of ferns and 62 endemic species of bryophytes. The latter are found mostly in the intermediate and mist forests of the interior mountains. The granitic islands are generally characterised by a rugged central range of hills with many steep, smooth, bare rock inselbergs known as “glacis”. The hills of the granitic islands are often surrounded by a narrow, flat, sandy and often

² The reefs of the Seychelles are bathed in clear, oligotrophic waters (with low nutrient levels) having a relatively shallow thermocline. Primary productivity ranges from 40 mg/m² in the first 100m where upwellings form on the edge of the bank to 3 g/m² nearer inshore and down to 0.5 g/m² in more pelagic situations. Satellite observations indicate higher levels of chlorophyll around the granitic islands, indicating that land-based nutrient runoff contributes to the regional patchiness of phytoplankton production.

³ A hotspot is a terrestrial area with at least 0.5%, or 1500 of the world’s ca. 300,000 spp. of green plants (*Viridiplantae*), and that has lost at least 70% of its primary vegetation (Myers, et al., 2000). 34 hotspots have been identified globally. The Madagascar and Indian Ocean Islands Hotspot of which the Seychelles is part contains 11,600 species of endemic plants, of an estimated 13,000 occurring. 183 out of the 313 species of birds, 367 out of 381 species of reptiles and 226 out of 228 species of amphibians are also endemic (Myers et al 2004). The island of Madagascar—by virtue of its size, harbors the largest number of these species. However, the long geological history of isolation of the smaller islands has led to tremendous speciation, and each of the major groups of islands, the Seychelles Archipelago, the southern Mascarene islands of Mauritius, Rodrigues, and Reunion, and the islands of Comores, and Mayotte, also harbour important assemblages of biodiversity. The Seychelles – in common with the other islands – has a high degree of endemism, implying that significant components of its biodiversity are irreplaceable and cannot be protected through conservation action elsewhere in the Hotspot.

marshy coastal strip of land. The 111 outer islands are coralline islands that have developed from the slow accretion of coral living in shallow waters. The coralline islands are small, flat and geologically much younger than the granitic islands. While still diverse, they do not harbour the same degree of species endemism as the granitic islands. The coral islands have 15 known floral endemic species. The island of Aldabra is the largest raised coral atoll in the world, and is considerably older than the other coralline islands and accordingly has a higher degree of endemism.

5. The following describes some of the additional key features of the terrestrial biodiversity⁴:
- Of the some 250 indigenous floral species in Seychelles, as many as 54 taxa or almost 21 percent of the flora are now considered threatened.
 - Thirty endemic taxa of birds occur, including 8 that are classified as globally threatened. The endemic birds of the granitic islands, e.g. Magpie Robin (*Copsychus sechellarum*) and Seychelles White-eye (*Zosterops modesta*) have been studied extensively and are the focus of ongoing conservation programmes.
 - The archipelago has the highest ratio of amphibian endemics of any island group in the world. Two species of snakes, about 22 endemic species and subspecies of geckos and skinks and one chameleon are endemic to the islands.
 - At least three endemic species of terrapins have been described from Seychelles.
 - Aldabra has the largest surviving wild population of giant tortoises in the world (around 140,000), and the last remaining wild populations of tortoises in the Indian Ocean.
 - The river and wetland ecosystems of the granitic islands support a number of endemic aquatic species including the endemic crab genus *Seychellum*, certain species of mayflies and caddisflies, and the snail *Paludomus ajanensis*.
 - Endemic fishes found in the freshwater habitats are *Pachypanchax playfairii* and *Parioglossus multiradiatus*, recently discovered in 2005.
 - The terrestrial molluscs of Seychelles show high endemism on some granitic islands and on Aldabra.
 - Endemism in scorpions, spiders and insects is very high. The biota includes the world's largest millipede. Many species are single island endemics.
 - Some 7% of the invertebrate species can be considered threatened, and of these some 50% are critically endangered.

6. Although the marine fauna of Seychelles remains largely unexplored, and the inventory is incomplete, recent surveys have shown diversity to be high. While the terrestrial fauna and flora of Seychelles are quite well studied and understood, the marine biodiversity of this equatorial zone is more poorly known. Further, recent surveys indicate that earlier estimates of the area of coral reef (1,690 km²) may well be a significant underestimation (Bijoux, 2005). The marine and coastal environment contains a storehouse of many different species of mangroves, seagrasses, algae, phytoplankton, zooplankton, sponges, corals, crustacea, molluscs, echinoderms, reef and pelagic fish, sea turtles, sea birds and marine mammals. The islands provide breeding and nursing grounds for many sea birds and fish. The position of Seychelles in the central southwest Indian Ocean ensures that these islands act as stepping stones for marine dispersal between the western Indian Ocean and the eastern Indian Ocean/western Pacific, with the range enhanced by the monsoonal system. Phylogenetic and biogeographical evidence indicates that Seychelles and other mid-oceanic archipelagos (e.g. Chagos) play a key ecological role in this respect.

7. The Seychelles is also a globally important storehouse of marine biodiversity⁵. The Seychelles is a center of distribution of many taxa, straddling a large geographic area that includes many different marine habitats. The levels of faunal diversity are particularly impressive⁶. Most of what is known about the

⁴ Mainly reported by Keuffer & Vos, 2004 and Shah et al., 1997.

⁵ The West Indian Ocean region is considered to be a distinct marine biogeographical province within the larger Indo-West Pacific region, harbouring a high diversity of marine life and exhibiting high levels of regional endemism. Some 11,000 marine fauna have been identified, but the data set is fragmented. Some observers posit that less than 50% of species have thus far been described (Griffiths, Indian J. Mar. Sci. In press).

⁶ Important habitats include sea grass beds, extensive areas of which are found on the Mascarene Plateau. Of the 50 globally described seagrass species, 13 are found in the Mascarene Plateau area. Coral reefs are found throughout the area. There is high endemism within the coral fauna, with over 370 species predicted to be found (UNEP-WCMC).

marine biodiversity is from the top 20m of the reef environment (Bijoux, 2005). The following lists the key attributes of the country’s marine and coastal biodiversity (Bijoux et al., 2003):

- Extensive mangrove habitats are found in the lagoons of Aldabra, Cosmoledo and Astove Island groups, where they provide important nesting, nursery and resting habitats for a variety of seabird species, as well as nursery grounds for fish.
- Extensive seagrass beds occur around the Outer Islands.
- An estimated 18% of sponges known to occur in the Seychelles are regional endemics.
- More than 300 species of Scleractinian corals have been recorded in Seychelles waters.
- Recent offshore sampling identified 55 bivalve species of molluscs, of which 26 were new to the Seychelles and 10 were new to science.
- Close to 1000 fish species have been recorded from Seychelles, some 400 of which are associated with reef ecosystems. Examples of endemics are the Seychelles clown fish (*Amphiprion fuscocaudatus*), the Seychelles bamboo shark (*Hemiscyllium ocellatum*), and two new species of sharks (*Squalus lalannei* and *Centrophorus seychellorum*) that have recently been described. The whale shark (*Rhincodon typus*) is common in Seychelles waters.
- Four species of sea turtles forage in Seychelles waters: the hawksbill turtle (*Eretmochelys imbricata*) and the leatherback turtle (*Dermochelys coriaca*) are listed as “Critically Endangered”, while the green turtle (*Chelonia mydas*) and loggerhead turtle (*Caretta caretta*) are listed as “Endangered” by IUCN. Seychelles hosts one of the largest remaining nesting populations of hawksbill turtle in the world and a significant nesting population of green turtles.
- An important feature of Seychelles is its vast numbers of breeding seabirds, both in the granitic and outer islands. Some colonies host more than one million birds and are among the largest in the Indian Ocean and the world (e.g. *Frigate* spp.). Seychelles is not situated along any important migratory route. However, many migratory species, especially waders, occur regularly.
- Over 26 species of Cetaceans (7 dolphin species and 19 whale species) have been observed in Seychelles waters.
- Dugong (*Dugong dugong*) sightings have been reported around Aldabra but they have not been studied and little is known about their status. The dugong is an endangered species worldwide and probably close to extinction in Seychelles.

8. A summary of the key characteristics of different terrestrial and coastal habitats is provided in table 1 below⁷.

Table 1: Key Characteristics of Habitats

Habitat	Key Characteristics
Beach and Dune Vegetation	<ul style="list-style-type: none"> • Severely modified by early settlers • Endemic spp. not dominant, except Pandanus • Some of the Outer Islands still retain some original beach vegetation. • Important for bird habitats/turtle nesting
Coastal and lowland forests (up to 200m)	<ul style="list-style-type: none"> • Moderate levels of endemism • Modified by settlers for coconut plantations • Fragmentation is high • Important bird habitats, including for migratory birds • Important feature of coral islands
Intermediate Forest (200 to 500m altitude)	<ul style="list-style-type: none"> • Rich in endemic species • High canopy forest, c. 30-40m • Relatively large fragments remain • Drier areas dominated by endemic palm trees
Mountain mist forests (over 500m altitude)	<ul style="list-style-type: none"> • Rich in endemics, although less rich than the intermediate forest • Support rare and endemic amphibians and other organisms

The reefs of the Seychelles have been highly impacted by coral bleaching associated with climate change. However, important areas of reef remain. Some 67% of the generic level and 88% of the family level diversity of hard corals in the region are represented (Engelhardt et al 2002). These reefs provide important recruitment areas for coral and fish and invertebrate larvae, which can be carried by sea currents over long distances.

⁷ Adapted from National Biodiversity Strategy and Action Plan (Shah et al., 1997).

Habitat	Key Characteristics
Glacis or Inselbergs	<ul style="list-style-type: none"> • Solitary monolithic granitic outcrop habitats of difficult access • High levels of endemism • Provide habitat for the extremely rare genus <i>Medusagynae</i> • Highly symbiotic relationships may exist in these habitats; • Important bird, endemic bat habitats • Habitats not directly modified by man
Rivers and streams	<ul style="list-style-type: none"> • Many indigenous and endemic invertebrates • Highest diversity found between 100 – 400m in the transition zone from upper to middle course
Wetlands	<ul style="list-style-type: none"> • Mangroves, marshes and freshwater wetlands • Support several endemic species, both plants and animals • Important bird habitats, fish nursery
Rocky shores	<ul style="list-style-type: none"> • Limited vegetation: coconut, Casuarina, and the endemic <i>Pandanus balfourii</i> • Molluscs, crabs, rockhoppers, barnacles, algae • Underwater: Foliose and encrusting corals
Fringing reef systems	<ul style="list-style-type: none"> • Occur around the granitic islands • Associated with a complex of communities including seagrasses and algae • Those reefs found on a granitic base have the highest rates of recovery from the 1998 bleaching event
Atoll reef systems	<ul style="list-style-type: none"> • Typical reef systems of the Outer Islands • Atolls may be very low islands or raised up well above sea level. They typically have a central lagoon connected to the sea. • Slow, linear rates of recovery from the 1998 bleaching event
Platform reefs	<ul style="list-style-type: none"> • Found around the Amirantes Group of islands • Migratory routes for pelagic fish
Open ocean	<ul style="list-style-type: none"> • Nutrient poor • Mainly highly migratory pelagic species such as tuna and tuna-like species

1A.3 Socio-Economic Context

9. The Seychelles has been inhabited by humans since 1770. It was sequentially colonised by both the French and the British, and obtained independence from Britain in 1976. The population originates primarily from French settlers, African plantation workers, British sailors, and traders from India, China and the Middle East. When the last census was conducted in 2002, the population was 81,200 inhabitants. The bulk of the population, economic activities and other forms of development are concentrated mostly on the narrow coastal plains of the three main granitic islands of Mahé, Praslin, and La Digue. Mahé in particular has about 90% of the total population, with some 40% located on the east coast in a belt of 7 km by 1 km to the south of the capital, Victoria. The population is projected to reach 100,000 by the year 2016.

10. The Seychelles has managed its economy in a pragmatic way since independence, evolving its development strategies to address emerging problems. This strategy has brought about significant changes in the development status of the country and has transformed the country from a quasi mono-crop agricultural economy (based on cinnamon and copra) to a dual economy heavily dependent on tourism and fishing, and vulnerable to external factors such as changes in the relative prices of resources. Generous foreign aid during the Cold War era allowed for heavy investments in social infrastructure. Since 1984, the Seychelles has progressively developed a more diversified economic base and pursued policies to facilitate export growth, import substitution, employment generation and greater self-reliance. In the early 1990s, the Seychelles adopted a more market-oriented approach as the Government embarked on a privatization programme. A generous welfare system has allowed Seychelles to achieve impressive progress, as shown by the country's socio-economic indicators. The Human Development Index Report 2003 classified the Seychelles among the list of countries having achieved medium human development with a global ranking of 36 (the highest in Africa), life expectancy of 71 years, net enrolment rate in primary education of 99.6%, literacy rate of 84% and a population growth rate of 1 per cent. However, since the beginning of the 1990s, Official Development Assistance flows have fallen by over 90% and this has placed a financial burden on the Government's budget. Increasingly, the Government has had to

borrow at commercial rates to finance development. This has led to a slowdown of the economy resulting from a shortage of foreign exchange.

11. Strong recessionary conditions continued to persist in the economy in recent years, leading to a GDP contraction of 2.0% in 2004 and 2005. Underlying macroeconomic imbalances continued to see the external sector seriously affected by shortages in foreign currency. A parallel market exists for the currency, the Seychelles Rupee (SR). The balance of payments deficit (SR181m. in 2003) widened further by 2004 to R345m. The soaring cost of oil (SR455m., or a 49% increase over 2003) and the continued strength of the Euro continued to affect the price competitiveness of the tourist sector. While official statistics still paint a generally sound and impressive picture of the economy (inflation rate of 3.9%, GDP per capita US\$ 8,000 and a registered unemployment level equivalent to only 3.8% of all sector employment), there is evidence that the unemployment rate and real inflation may be significantly higher and that the Rupee may be more overvalued than is portrayed. Government has entered into discussions with the IMF regarding structural adjustment and there are potentially difficult economic transitions coming in the future. A program of controlled structural adjustment is now underway. GOS has recognised that the economy is very dependent on natural resources and that the natural resource base must not be undermined in the process of structural adjustments. Pressures on the natural resource base are not that high at the present, but they can be expected to grow in the future. This calls for precautionary measures to protect the natural resource base.

Table 2: Seychelles Economy: Miscellaneous Statistics
(The official exchange rate in February 2006 is 5.6 Seychelles Rupees (SR)/US\$)

<i>Year</i>	<i>2000</i>	<i>2002</i>	<i>2004</i>
Gross Domestic Product SRm.	3513.3	3825.5	3867.0
Agriculture, forestry, fishing	99.4	110.3	100.7
Industries	995.7	1128.4	1055.5
Tourism	630.8	707.0	725.8
Government	433.0	458.0	492.5
Other services	1354.4	1421.8	1492.5
Employment (numbers)	39381	41687	41169
Private sector	19753	21715	20590
Parastatals	5550	5957	5905
Government	14078	14015	14674
Average monthly earnings R.	3343	3465	3740
Private sector	3208	3269	3507
Parastatals	3693	3865	4027
Government	3561	3593	3997
Inflation rate (retail prices) %	6.3	0.2	3.9
Exchange rates R.			
Euro	5.2650	5.1751	6.8378
US Dollar	5.7132	5.4883	5.5000
Fish landed (tonnes)			
Artisinal	4764	4914	4374
Semi-industrial (long-line)	290	247	122
Industrial			
- Caught	330340	379253	356352
- Transhipped	269673	332860	306274
Tourism			
Visitor nights (numbers)	1352	1331	1210
Hotel bed occupancy (%)	52	52	44
Agriculture			
Cropping (tonnes)		3698	4581
Livestock products (tonnes)		2047	2170

NOTE: 2004 Industrial fishing and Crop production are Central Bank estimates.

1A.4 Production Sector Profiles

12. The following section describes the main production sectors: namely fisheries, and tourism.

Fisheries

13. The fisheries sector in Seychelles is critically important both for assuring food security and

economic development. In terms of foreign exchange earnings it surpasses tourism, although the number of people employed in the sector has remained stagnant (except for tuna canning), accounting for 15% of total formal employment. The industrial marine capture fisheries have grown considerably over the last two decades, expanding in tandem with the development of industrial tuna fisheries in the Western Indian Ocean. Seychelles now serves as the regional hub for industrial tuna fisheries and hosts the secretariat of the Indian Ocean Tuna Commission (IOTC). The industrial tuna fishery of the Western Indian Ocean is considered to be one of the few industrial fisheries of the world that still has some potential for sustainable development⁸. The industrial fisheries target tuna and tuna like species. Semi-industrial fisheries have only been developed since 1995, with the construction of a small, locally-owned fleet of medium-sized longliners (12-22 meters) that mainly target swordfish and tuna. Although industrial fisheries constitute a major source of foreign exchange earnings for the Government, it is the artisanal fisheries that remain of great importance in terms of assuring food security to communities, and generating local employment.

Table 3: Fish Landed (for the main fishing categories)

Fish Landed (metric tonnes)	2000	2002	2004
Artisanal	4764	4914	4177
Semi-Industrial (long-line)	390	190	111
Industrial:			
Caught	330340	379253	358261
Transhipped	269673	332860	300937

14. Small-scale artisanal fisheries have developed to exploit a high diversity of species and habitats. This has resulted in a wide array of boat/gear combinations and strategies. Nearly 60% of a total of 1750 artisanal fishers are employed in the demersal line fishery that exploits the waters of the Mahé and Amirantes Plateaux using the “whaler” category of boats. This fishery targets the Lutjanids (snappers), Serranids (groupers), Lethrinids (capitaines) and Carangidae (carangues). The resources of the near shore reef ecosystems are exploited primarily by the trap fishery using small boats (Mini-Mahés) and traps fabricated out of local materials. The artisanal net fishery targets non-sedentary fish, mostly mackerel, using small boats. The octopus, lobster and crab giraffe fisheries employ relatively small numbers of people. The octopus fishery in Seychelles is almost totally an artisanal effort. The lobster fishery is subdivided into: a) the area around the granitic islands; b) the rest of the Mahé Plateau. The live fish fishery has not been developed except for a recent trial in the Farquhar Group by the Chinese. The sea cucumber fishery is the first to have a participatory management plan, which was developed in 2005 – the number of boats licensed for this fishery has been limited to 25. Aquaculture is not highly developed, except for prawn culture at the outer island of Coetivy, and the potential for growth is limited owing to the high costs.

Table 4: Profile of Seychelles Artisanal Fishery

Type of fishery	No. of persons Employed	Potential for Future employment
Demersal hand line	1000	Moderate
Trap	350	Moderate
Net (mackerel)	90	Moderate
Octopus	60	Moderate
Lobster	40	Poor
Crab Giraffe	10	Moderate
Live fish	N/A	Poor
Mothership	N/A	Poor
Sports	60	Good
Sea Cucumber	100	Moderate
Shark	40	Poor
Total no. employed	1750	

⁸ A significant unknown factor affecting the future of the industrial fisheries is the continuing increase in oil prices. Industrial fisheries world-wide use 12.5 calories of fossil fuels for each food calorie of fish – the highest ratio of any major category of food in the world. Increases in oil prices could potentially lead to a decline in industrial fishing effort, correspondingly decreasing pressures on open ocean stocks and increasing pressures on artisanal fish stocks.

15. The total landings for the artisanal fishery have remained fairly constant for the last 20 years with approximately 4000 metric tonnes of fish landed annually. This catch supplies the local market demand, including hotels and restaurants, and approximately 800 metric tonnes of fish, mostly groupers and snappers are designated for the export market. This long term stability could indicate that the local market serves as a constraint on the total amount of the artisanal catch. Some observers posit that the artisanal fisheries have nearly reached an optimum level of sustainable exploitation (Nageon de Lestang, 2005). However, another measure would indicate that the artisanal fishery has more serious problems, because the catch per unit effort (CPUE) has declined over the last ten years (Grandcourt and Cesar, 2003). In particular, the demersal resources within 10 km of shore are considered to be overfished (de Lestang 2005).

16. The main components of the artisanal fishery are summarised below:

Table 5: Main Components of the Artisanal Fishery

Fishery	Features	Annual catch (approx.)
Handline (including dropline)	The most important type of fishery, accounting for more than 73% of total fish landings Targets mostly high value demersal species, such as snappers and groupers, as well as semi-pelagic species such as carangues and becunes caught mostly inshore within a radius of 15 miles from the main granitic islands	2950 metric tonnes
Trap	Only technique that can be used to catch certain species such as rabbitfish <i>Siganus</i> spp. and parrot fish = Scaridae spp Mainly targets species associated with reefs and shallow coral banks Shows a strong seasonal nature - SE Monsoon's rough weather forces fishermen to operate in inshore areas (sometimes in lagoons) Trap fishing is often undertaken by fishermen to supplement other fishing activities	600 metric tonnes
Net	Mainly targets mackerel Mackerel subject to stock variability Therefore market gluts and shortages	Quantity varies
Octopus	Part-time subsistence Skin divers and foot fishermen (spear) Hotel and restaurant market	50 metric tonnes
Lobster	Seasonal fishery (Nov-Feb), subject to Government regulations Some 30 licenses granted per year (3 divers per license) Hotel and restaurant market	Unknown
Crab Giraffe (Ranina ranina)	Distribution and density vary Limited market demand	10-30 metric tonnes
Live fish	Highly valued species Far East market 40 fishermen from China (Farquhar Is)	20 metric tonnes
Sport	30 licensed sport fishing vessels Revenue has declined due to scarcity of larger pelagic fish (tuna) off the Mahé Plateau	Unknown
Sea cucumber	Lack of accurate data 25 licensed boats Far East market Lucrative (SR28000/ton)	72 metric tonnes (2003)
Shark	Most fishermen only keep fins and discard the carcass at sea	Little data available
Aquaculture	Coetivy Prawn farm (SMB) Pearl Oyster farm Giant Clam farm	835 metric tonnes 750 MT oysters 7026 MT clams

Tourism

17. Prior to completion of the international airport in 1971, the only access to Seychelles was by boat.

The tourism industry expanded greatly after the opening of the airport. Tourist arrivals increased steadily for the first 25 years, reaching 47,280 by 1982 and peaking at 130,955 in 1996. Arrivals declined gradually to 124,865 in 1999, before recovering to 130,046 in 2000, and then declining again to 120,765 in 2004. The country has some 152 hotels (see Table 5 for details) with some 5,000 beds. A total of 43% of all hotels and guesthouses are found on Mahé, 32% on Praslin, 17% on La Digue and 8% on other islands. The Seychellois tourism sector contributed 19% percent of the country's GDP in 2004 and directly provided for 20% of national employment. It generated SR756 million of foreign exchange, or 30 % of the country's foreign exchange earnings. The contribution of tourism to the national economy is much more significant, since these statistics do not take into account the economic multiplier effect that is spawned by the industry and the creation of value added in other sectors.

Table 6: Profile of Tourism Service Operators 2004

	Mahé	Praslin	La Digue	Other islands	Total
Large hotels	9	11	1	3	24
Small hotels	35	21	16	9	81
Guesthouses/self catering	21	17	9	0	47
Sub-Totals	65	49	26	12	152
Restaurants and cafes	73	37	10	5	125
Car hire	40	15	0	0	55
Bicycle hire	2	8	17	0	27
Dive centres	6	8	1	7	22
Glass-bottomed boats	14	0	0	0	14
Hire craft	107	64	17	29	217
Water sports	4	3	0	4	11
Travel agents	4	0	0	0	4
Tour operators	5	1	0	0	6
Tour guides	4	4	0	0	8

18. Compared to global and regional trends over the past 10 years, Seychelles' performance has been inconsistent. Tourism's performance has softened slightly since 2002, as witnessed by the 9.3% decrease in arrivals over the last 2 years. Average length of tourist stay has also decreased slightly, resulting in an annual occupancy rate of 44%. The high end of the tourism sector, however, has a much higher occupancy rate than the sector as a whole. Over the last 10 years, the policy of the Government has favoured the growth of high-end, or "haute de gamme" tourism, which was also indicated by the recent incentives for this type of tourism (Tourism Incentive Act, 2003). This has caused major investment growth in the high end tourism market in Seychelles. Recently, the newly formed Seychelles Tourism Board (STB) is refocusing this strategy to balance the growth towards the smaller establishments as well. The new target of the Government is to increase tourism to a total of 145,000 visitors in 2006, and increase the visitor per capita daily expenditure from SR 375 to over SR 425. The Seychelles tourism industry is now positioned for a major expansion of capacity, with most new investments being made in the high-end portion of the sector. Capacity is expected to increase by some 2,000 new hotel beds (40 % increase) over the period 2006-08, especially on Mahé, although 2 new hotel developments are also planned on Silhouette.

19. The current policy document on tourism development in Seychelles, Vision 21, sets the objective of positioning Seychelles as an exclusive and quality destination, setting it apart from other destinations⁹. It advocates coordinated national efforts to maintain and expand the tourism sector's contribution to the economy in a manner that is environmentally and socially sustainable. It targets eco-tourism development under its Eco-Tourism Strategy. Government has established incentive policies to guide tourism development and to encourage all developments to properly address environmental management objectives.

⁹ This reflects the fact that the number of people world-wide that can afford to travel is growing exponentially. The number of quality tourism destinations world-wide is relatively finite. The quality of the Seychelles' environment is substantial. If these assets can be protected, the Seychelles will have a high competitive edge vis-à-vis other island destinations.

Other Sectors

Agriculture and Forestry

20. Agricultural development in the Seychelles went through major changes from the 1800's through to 1960, moving away from food production and into a cash crop economy with copra as the main crop and cinnamon in a lesser position. With the growth of the tourism industry, there was a major exodus of labour from agriculture into construction, tourism and other related sectors. The production of traditional crops declined drastically. Agriculture in Seychelles is now characterized by small farms with an average size of 0.5 hectares and rarely exceeding 2 hectares. Farmers employ various levels of technology and management, some of it fairly sophisticated. Currently, about 500 registered farms are dispersed throughout the major granitic islands of Mahé, Praslin and La Digue, where they are found on both the coastal plateau and the steeper terrain. Out of a potential agricultural area of 2,900 ha, 600 ha are under some form of agricultural production. Only about 200 hectares are under intensive cultivation. There are about 400 registered crop farmers, some 1,500 legal pig farmers and 55 licensed poultry farmers. In addition, a number of urban households engage in backyard vegetable production (estimated to equate to a total of 45ha vegetable and fruit crops). Farming land is either leased from the State, or is privately owned. Current agricultural production meets about 4% of the local demand for beef, 50% for pork, 60%-70% for vegetables and fruits, 80% for poultry and 100% for eggs. Cinnamon and coconut production have dropped considerably in the last 10 years. Agriculture employs around 3,800 persons and currently accounts for about 3.8% of GDP.

21. Total forest cover of the Seychelles has been estimated at 40,600 ha, of which productive plantation forests comprise some 4,800 ha. Although the forestry sector is marginal in terms of recorded income and employment, it supports a wide range of other economic values (for which there is little data): Watershed protection, erosion control, aesthetic value, and supply of medicinal plants.

1A.5 Policy and Legislative Context

22. There is a strong policy framework for environmental management and for biodiversity conservation in the Seychelles. Environmental concerns are embedded in the Seychelles' constitution, where article 38 states that, "*The State recognises the right of every person to live in and enjoy a clean, healthy and ecologically balanced environment and with a view to ensuring the effective realisation of this right the State undertakes... to ensure a sustainable socio-economic development of Seychelles by a judicious use and management of the resources of Seychelles*". Environmental management in Seychelles is guided by the second Environment Management Plan of Seychelles (EMPS). The EMPS 2000 – 2010 was developed through a highly consultative process involving all major stakeholders and has the following Goal:

"The promotion, coordination and integration of sustainable development programmes that cut across all sectors of society in the Seychelles".

23. EMPS 2000 – 2010 attempts to integrate environment management concerns into other development sectors while addressing core concerns. It is the country's leading sustainable development strategy document. The EMPS covers ten thematic areas covering all major social and economic sectors, which for the purposes of this project include: Land Use, Coastal Zones and Urbanisation; Biodiversity; Fisheries and Marine Resources & Processes; Tourism; Environmental Economics, Mainstreaming and Sustainable Financing; and Regulatory, Policy and Institutional Mechanisms. EMPS also covers cross cutting themes such as education, awareness and advocacy; partnerships, public consultation and civil society participation; training and capacity building; management; science, research and technology; monitoring and assessment; and vulnerability and global climate change. The EMPS is overseen by a national steering committee that includes civil society stakeholder participation. The EMPS was designed to be a "living" document which could adapt to changing circumstances through a built-in policy review mechanism.

24. A number of other policies/plans relate directly to biodiversity. The National Biodiversity

Strategy and Action plan (NBSAP, 1997) addresses biodiversity issues in the framework of the Convention on Biological Diversity (CBD). The “Plan Indicative d’Aménagement du Territoire” (PAT, 1992) lays the ground rules for land use planning, based on sustainable development; it only covers the three main granitic islands and it has never been enacted. Sector-specific policy documents have direct influence on biodiversity conservation objectives. The Seychelles Forest Management Plan was developed by a consulting firm in 1993 (INDUFOR, 1993). The National Strategy for Plant Conservation (2005) was recently completed by the NGO Plant Conservation Action Group in collaboration with the MENR. The National Fisheries Policy 2003-2013 lays the framework for sustainable national fisheries development. The Tourism Policy and Vision (Vision 21) encourages protection of natural resources to underpin tourism development. The Ecotourism Policy promotes increased emphasis on ecotourism development in Seychelles. The National Agricultural Policy lays the framework for agricultural development and supports capacity building for agricultural development and extension. The Macro Economic Reform Programme (MERP) was introduced in 2003 to tackle the growing budget deficit and the scarcity of foreign exchange.

Legislation

25. The Town and Country Planning Act of 1972 provides the basis for land use planning in Seychelles, but is currently out of date. The Act provides sufficient basis for environmental protection, but is based on a top-down, Government-driven approach to land use planning with little provision for stakeholder involvement and integration of biodiversity conservation objectives into planning efforts.

26. Numerous pieces of legislation address the conservation of biological diversity in general. The *Environment Protection Act 1994* provides for the protection, preservation and improvement of the environment and for the control of hazards to human beings, other living creatures, plants and property. The Department of Environment administers the Act, and co-ordinates the activities of other agencies concerned with the protection of the environment. To date, two authorities have been legally established under the Act: the Solid Waste and Cleaning Agency (SWAC), and the Marine Parks Authority (MPA).

27. *Environment Impact Assessment (EIA)* is dealt with under the Environment Protection (Impact Assessment) Regulations [EP (EIA) Regulations]. The legislation requires that an EIA study be carried out and that an environmental authorisation is obtained if any person commences, proceeds with, carries out, executes or conducts development. The specific criteria that determine the necessity of an EIA are found in the EP (EIA) Regulations. These regulations list categories of projects or activities requiring environmental authorisation as well as protected and ecologically sensitive areas that will trigger an EIA. An Environmental Impact Assessment Unit within the Department of Environment handles all administrative issues related to the EIA process.

28. Protected Areas are regulated under different pieces of legislation, with some of these laws being quite outdated (see table 8 below). Some of the categories are not used up to the present. Most of the relevant protected areas (National Parks and Special Reserves) have been set up under the *National Parks and Nature Conservancy Act*. Some 47% (210 km²) of the Seychelles land area is protected through the different categories, as well as some 228km² of ocean. An additional 20-25 % of the land area is classified as being sensitive (Country environmental profile, GOS, 2005).

Table 7: Protected Areas in Seychelles and its legal framework¹⁰

Category of Protected Area	Number of Areas	Regulation
Forest Reserves	None	<i>Forest Reserves Act (1955)</i>
Coast Reserves	None	<i>Coast Reserves and Foreshore Leases Ordinance</i>
Nature Reserves	10	<i>Wild Birds Protection (Nature Reserves) Regulations (1961, amended 2001)</i>
Rivers Reserves	Include all important water courses	<i>Crown Land and Rivers Reserves Act (1903)</i>
National Parks	8	<i>National Parks and Nature Conservancy Act (1969)</i>

¹⁰ Adapted from National Biodiversity Strategy and Action Plan (Shah et al., 1997).

Category of Protected Area	Number of Areas	Regulation
Special Reserves	4	<i>National Parks and Nature Conservancy Act (1969)</i>
Strict Natural Reserves	None	<i>National Parks and Nature Conservancy Act (1969)</i>
Areas of Outstanding Natural Beauty	None	<i>National Parks and Nature Conservancy Act (1969)</i>
Protected Areas	4	<i>Protected Area Ordinance (1967)</i>
Shell Reserves	4	<i>Fisheries Act, (1987)</i>
Fisheries Reserve	3	<i>Fisheries Regulations (1987)</i>
Sensitive Areas	308 under various categories (natural, monuments, catchments, etc.)	<i>Environmental Protection (Impact Assessment) regulations (1996), schedule 2</i>
Botanical Garden	1	<i>National Monument Act (1980)</i>
Bird Sanctuary	1	<i>No legislative protection</i>
Bird Reserve	1	<i>Decision of Council of Ministers</i>

29. Recently, different acts to support the economic development and creation of employment opportunities in different production sectors were promulgated. This concerns the *Tourism Incentive Act* (2003), and the *Fisheries and Agriculture Incentives Acts* (2005). These acts stipulate different incentives to the respective industries, most in terms of tax rebates, foreign exchange allocations and retention, allowances for foreign workers, payment of Government Occupancy Permits, etc.

1A.6 Institutional Context

Government

30. Within a year after independence in 1976, Seychelles' Government had come under the control of a one-party political system that developed a welfare state with interventionist social policies, including wealth re-distribution. Seychelles became a multi-party democracy in 1992 and adopted a new constitution (1993). The Seychelles is now divided into 25 electoral districts, each directly electing a member to the National Assembly. The electoral cycle is of 5 years duration for both the Legislative Assembly and the Presidency. Government has three separate branches – the executive, the legislative and the judiciary. Government currently has 8 ministries and 12 departments. The departments are headed by principle secretaries (PS) that fall under either the direction of the ministers or under the direct purview of the President or Vice-President. The main institutions responsible for biodiversity conservation are detailed in Annex IV. The roles and responsibilities of the key Government institutions are briefly described below.

31. The Department of Environment (DOE), under the Ministry of Environment & Natural Resources (MENR), has prime responsibility for environmental management and the sustainable development process. DOE consists of 3 Divisions headed by Director-Generals, an Administration Section and an Education, Information and Communication Section for public relations. The Department of Natural Resources (DONR) under the same Ministry is responsible for Agriculture and Fisheries. The Ministry of Environment and Natural Resources is the parent ministry to several institutions with responsibilities for environment: the Marine Parks Authority (MPA), the Solid Waste and Cleaning Agency (SWAC), the Seychelles Fishing Authority (SFA), as well as the Water and Sewerage Division of the Public Utilities Corporation (PUC). The Department also works in collaboration with a number of local and international NGOs.

32. The Ministry of Land Use and Habitat (MLUH) is responsible for oversight of land and infrastructure development, for land use planning, for providing urban and architectural guidelines, and for Government residential developments and housing projects, land reclamation, planning and building applications. The Local Government Division under the Ministry of Local Government, Culture and Sports (MLGCS) also has a Planning Section for infrastructural projects requested by District Administrators.

33. The Planning Authority (PA) is set up under the Town and Country Planning Act, chaired by the

Principal Secretary of the MLUH and mandated to prepare land use plans. Five members of the PA out of 12 are principal secretaries of key ministries concerned.

34. The Ministry of Economic Planning and Employment (MEPE) is responsible for creating a suitable macro-economic enabling environment wherein the production sectors operate. The Ministry of Finance (the President is Minister of Finance) prepares legislation pertaining to national finances, and is the final arbitrator in the preparation of the National Budgets, presented in November/December before the National Assembly.

Sectoral Institutions

35. **Fisheries:** The main institution responsible for the management of the fisheries in Seychelles is the parastatal Seychelles Fishing Authority (SFA). Its duties are to promote, organise and develop fishing, fishing industries and fishing resources in the Seychelles. The parent ministry, the Ministry of Environment and Natural Resources, created a Fisheries Policy Unit in 2005 that works in close collaboration with SFA on fisheries policy matters. Other entities related to the fishing sector are the Department of Environment (Marine Unit), the SCMRT-MPA, the Licensing Authority, the newly created Port Authority and the Maritime Safety Administration. The recently created FBOA represents boat owners rather than fishers, although many FBOA members are fishers. The fishers themselves are not directly organised in any kind of association. Recently, a sea cucumber fisheries management committee has been set up with representatives of various primary stakeholders (including boat owners, divers, processors, and NGOs).

36. A new Fisheries Development Committee has recently been set up (March 2006), which comprises all major stakeholders (government, civil society, fishers associations) from the industrial and semi-industrial fisheries sub-sectors. The committee is charged with charting out a 5 year “fisheries development plan”, in the face of changing economic conditions for tuna exports.

37. **Tourism:** The Department of Tourism and Transport (DOTT) is responsible to the office of the Vice President. As a result of the recent creation of the parastatal Seychelles Tourism Board, with its own governing board comprising of state and non-state stakeholders, the role of DOTT has been reduced primarily to policy formulation for the sector. A Policy Planning & International Cooperation Division in the Department of Tourism is mandated to facilitate the development and adoption of good practices pertaining to sustainable development within the tourism industry. “Vision 21” is the official strategy document providing a “road map” for tourism development in Seychelles.

38. A Seychelles Tourism Board (STB) has recently been established through the Seychelles Tourism Board Act (April 2005). The main functions of the STB are to: a) Promote the efficient and sustainable development of tourism; b) assist and advise the government in development of the sector; c) encourage improvement of the tourism product; d) establish codes of practice and standards; and e) carry out market research and implement marketing strategies. The STB is governed by a board of directors comprising members from the public and private sector, all appointed by the President. The STB is headed by a Chief Executive Officer, who is also chairman of the Board. In addition to the STB, a Tourism Advisory Committee has also been appointed by the Vice President (responsible for the Department of Tourism & Transport) with broad representation from the public and private sector. This committee is mandated to advise Government and STB on the planning and development of the industry. The Seychelles Investment Bureau (SIB), established in 2004 under the President’s Office, facilitates all investment proposals in Seychelles.

Non Governmental Organisations

39. Seychelles has a very vibrant environmental NGO (ENGO) community that has been very successful and innovative in pursuing a range of conservation objectives. The ENGO community has strong capacities and has developed an exceptional range of working partnerships with tourism operators, especially for invasive alien species (IAS) control and habitat restoration on small islands. These organisations have been successful in mobilising funding, drawing upon international networks of

expertise and in undertaking biodiversity conservation and management work. ENGO capacity continues to grow, although the challenge of securing adequate financing for full-time staff remains a constraining factor. The Liaison Unit for NGOs (LUNGOS) offers centralized co-ordination services to members. A brief description of the roles and responsibilities and activities of the main ENGO is presented in Table 8 below.

Table 8: Primary ENGOs involved in Biodiversity Conservation
(in alphabetical order).

NGOs	Roles & Responsibilities	Partners and Activities
Island Conservation Society (ICS)	Biodiversity conservation, public education and awareness	ICS manages Aride Island Special Reserve and is leading the eradication and habitat rehabilitation work on North Island in partnership with North Island Resort. ICS has a special interest in biodiversity conservation on the Outer Islands. The Island Development Company (IDC) considers ICS to be their main partner for environmental issues for the Outer Islands. ICS has also worked on the magpie robin recovery and have expertise in cat and rat eradication.
Marine Conservation Society, Seychelles (MCSS)	Research, conservation and management of Seychelles' marine ecosystems	MCSS' partners include hotel operators and other groups on Denis, Cousine, Bird, North, D'Arros and Aride islands. They work with Banyan Tree Resort on sea turtle monitoring and conservation. MSCC works with MPA and with the ENGOs ICS, SIF and NPTS and with the Save our Seas Foundation of the University of London. MCSS does staff training in sea turtle monitoring and data collation under the "Strategic Management of Turtles" programme. They have a strong cetacean and whale shark monitoring and data collation program and conduct monitoring of beach erosion and sea turtles. MCSS works on mooring installation and maintenance to minimise anchor damage to coral reefs.
Nature Protection Trust of Seychelles (NPTS)	Biodiversity research, awareness and management.	NPTS is based on Silhouette Island. They receive support from IDC and have begun work with Universal Hotels who are constructing a large hotel on the island. NPTS publishes an annual scientific journal and a quarterly magazine on nature issues in Seychelles, focusing primarily on birds. NPTS is also working on giant tortoise conservation.
Nature Seychelles	Supports biodiversity conservation and other environmental activities including research, public education and staff training.	Nature Seychelles is affiliated with Birdlife International. They have developed partnerships with tourism operators/island owners on Frégate Island, Denis, Cousin, Cousine and Bird Island where they have done pioneering work on IAS eradication and habitat restoration. Nature Seychelles directly manages Cousin Special Reserve. They led the magpie robin recovery programme and are active in monitoring programmes for birds and sea turtles.
Plant Conservation Action Group (PCA)	Focuses on conservation of (endemic) plants and landscapes (forests).	PCA's partners include North Island Resort, the Botanical Gardens Section & Nature Conservation Division of MENR, the Geobotanical Institute of Zurich and SIF. PCA published the National Plant Conservation Strategy in collaboration with MENR and have developed the database for the Red Data List of Seychelles plants. They are printing a guide on palms and screw pines and are working together with MENR to establish the legal framework for plant conservation. PCA is linked to the Eden Project and the Royal Botanic Gardens, Kew, England.
Seychelles Island Foundation (SIF)	Management of two UNESCO World Heritage Sites in Seychelles, research and public awareness	SIF was created to manage the Aldabra Atoll World Heritage Site. Later, the Foundation was also given responsibility for the management of the Vallée de Mai WHS. SIF is presently establishing an international Trust Fund for Aldabra.

NGOs	Roles & Responsibilities	Partners and Activities
Wildlife Clubs of Seychelles	Environmental education for young people along with broader public education and awareness.	The main partners of Wildlife Clubs are Nature Seychelles and the Ministry of Education and Youth. The national curriculum recognises a formal role for the Wildlife Clubs in environmental education and other school activities. They conduct annual competitions amongst schools and other awareness programmes for youths...

Private Sector Institutions

40. **The Fishermen's Boat Owners Association (FBOA)** was created in 2003 to represent the interests of their members. This Association presently has 35 members, each paying an annual subscription fee of SR 500.00 (US\$ 89). The Association has monthly meetings with the Fishing Authorities (MENR and SFA) where issues of concern are discussed. The FBOA has also achieved some measure of success in participating in discussions to obtain concessions on duty exemption for fishing material and safety equipment, and in assisting fishers in obtaining compensation for the repair of vessels and replacement of equipment damaged in the 2004 December tsunami. It has proposed certain realistic amendments to the legislation, i.e. new license fee structure, with fishing vessels paying a fee in proportion to the size and capacity of the vessel. Fishers have traditionally been very independent and distrustful of Government. The creation of FBOA has been a positive step towards promoting dialogue between fishers and Government.

41. The main professional organisation representing the economic interests of tourism operators is the **Seychelles Hospitality and Tourism Association (SHTA)**. Until recently, SHTA primarily represented the smaller hotel owners, but the Association is now open to operators of all sizes. SHTA serves as an interface between private operators and Government; the chairperson sits on the board of the STB and a member sits on the EMPS. SHTA is supportive of the idea of the development of a certification scheme for tourism.

42. The **Seychelles Chamber of Commerce and Industries (SCCI)** represents the interests of the private business community including tourism and related businesses. Nearly all private businesses in the Seychelles are members, and the SCCI is often consulted in matters concerning policy development and legislation.

Cross-sectoral Planning and Coordination

43. Policy and programmatic coordination is achieved through numerous inter-sectoral bodies, involving other Ministries, the private sector, NGOs and civil society. These include the Environmental Management Plan of Seychelles (EMPS) Steering Committee, the Planning Authority (for land use planning), the National Environmental Advisory Council, the Rivers Committee, National Parks Committee, and various bi/multi-lateral inter-department meetings. The National Inter-ministerial Committee (NIC: Chaired by the Vice-President, composed of 23 members that are nearly all principal secretaries) and the Cabinet of Ministers are the decision-making bodies, where national intersectoral planning, coordination and execution are addressed. The private sector is increasingly represented in consultative bodies set up by Government, in particular the Joint Economic Council. The SCCI, SHTA, FBOA and the Farmers' Association are all members of various established consultative planning fora.

PART 1-B: Baseline Course of Action

1B.1 Threats to Seychelles Biodiversity

44. Historical records indicate that the islands were originally covered by dense forests, supporting large populations of birds and reptiles. Marked changes to the natural environment have taken place over

the past 235 years. The main threats to biodiversity have historically been associated with the production sectors and this continues to be true today. Until recently, terrestrial habitats were the most severely affected. Forests were high-graded for timber species and were cleared, first for food crops and later for cash crops and even for fuel to distil cinnamon oil. The physical development of the island contributes to loss and fragmentation of habitats. Dramatic economic transformations have taken place in the past 35 years and are continuing. Modern day threats to biodiversity are increasingly associated with artisanal fisheries, and tourism. The biodiversity of Seychelles is not as severely threatened as that of most other small islands. GOS, ENGOs and the private sector have invested far more to counter threats to biodiversity than any other African country. However, threats associated with production sectors continue to grow and considerable economic uncertainty exists. Efforts to mainstream biodiversity conservation objectives into production sector activities remain timid.

45. The exact status of the Seychelles' forest communities differs from island to island. Despite variations between the islands, a number of general observations may be made. Coastal vegetation (up to 100 m above sea level) has been altered by human settlement activities and much of it was converted to coconut plantations in the 1800s and early 1900s (Kueffer and Vos, 2004). The lowland forests originally covered most of the granitic islands up to about 200 m amsl, but have been almost completely cleared for timber, fuel and the production of cinnamon. The intermediate-altitude forests, ranging from 200 to 500m, were the richest in terms of endemic taxa, but have now been extensively altered, except for the glaciares areas. The mountain mist forests originally covered the highest elevations (above 550m), and they still remain rich in mosses, lichens, ferns and epiphytic orchids (Kueffer and Vos, 2004). Important remnant forests still remain in selected areas of Mahé, Praslin and Silhouette (Carlström, 1996). The vegetation of raised limestone and coralline islands has also been disturbed by past human settlement activities, such as phosphate mining, and guano extraction.

46. The on-going fragmentation and alteration of habitats through human interference exerts pressure on the Seychelles' fauna. A total of 8 spp. of land birds are considered globally threatened. Seychelles hosts globally important colonies of sea birds in both the granitic and outer islands. The Seychelles sheath-tailed bat is highly endangered. Four species of turtle are either "Endangered" or "Critically Endangered". Some 7% of the invertebrate species can be considered threatened.

47. The coral reefs of the Seychelles were heavily impacted by the 1998 coral bleaching event, which reduced coral cover by as much as 90% on some reefs (SEYMEMP, Final Report). The Outer Islands seem to have been less affected, although Cosmoledo atoll is an exception (Souter et al, 2005). Since the bleaching event, hard corals on granitic reefs (reefs with a granitic geological base) have shown a slow but accelerating geometric recovery in spite of brief setbacks from less serious warming events observed in 2002 and 2003¹¹. Carbonate reefs have been characterised by a much slower, arithmetic rate of recovery that stalled for the two years following the less severe warming events of 2002 and 2003 (Payet et al., 2005).

48. The main threats to biodiversity and their underlying root causes are elaborated in Annex 1.

Physical Development

49. One of the main impacts of physical development is that it results in the physical destruction or fragmentation of habitats. The land area suitable for development is limited. The granitic islands are characterised by a central range of hills surrounded by a narrow, flat, sandy and often marshy coastal strip. A significant proportion of the main granitic islands of Mahé, Praslin and la Digue is urbanised. The pressure for residential development is strong on the lower part of the mountains (up to around 200 metres high along the main roads crossing the main islands of Mahé and Praslin) and the coastal areas. The scarcity of land suitable for development has prompted the reclamation of some nearly 600 hectares of sea in the vicinity of Victoria and the east coast of Mahé. These reclamations have now interrupted what was one of the largest continuous stretches of fringing reef (27 km) along the east coast of Mahé.

¹¹ The granitic reefs in Seychelles have been identified as regionally significant reservoirs of biodiversity, because of their unique geological history. It is vital that these granitic reefs, with its associated reef fish and other biotic communities are maintained.

Infrastructure development is often accompanied by very high rates of erosion during and after construction: this causes high rates of sediment deposition, which may severely impact marine habitats. Physical development also favours the spread of invasive alien species. The expansion and regeneration of most IAS plant species are facilitated by the disturbances that accompany the construction phase of infrastructure development.

50. Though a large portion of Seychelles surface area, both terrestrial and marine, is protected, the protected area network is disjointed. Some of these areas have not been developed with strict biodiversity priorities in mind. Many Protected Areas are not actively managed, and few management plans exist. The principle threats to these areas derive from production activities such as tourism and fisheries, and physical development, which may lead to habitat fragmentation and isolation.

Tourism

51. While the actual impacts of tourism development are largely unquantified, it is the cumulative impact of this rapidly growing sector that is judged to pose the greatest threat. Impacts from tourism can be grouped under two categories: the impacts associated with the construction or physical development of new infrastructure, and impacts associated with ongoing tourism operations. The impacts from the construction phase are largely the same as those described in the previous section on physical development. Tourism facilities are more strongly concentrated along the environmentally sensitive coastline and on the smaller islands than other forms of physical development. Many islands lack natural harbors and tourism development on the islands sometimes involves the construction of landing facilities. Tourism operations also generate sewage and nutrient pollution. Marine ecosystems found in bays and shallow coastal waters protected by reefs are especially susceptible to nutrient pollution. Environmental stresses such as those caused by nutrient pollution or sedimentation are especially critical for the young coral that has started to recover following the major bleaching event of 1998. Physical damage to coral reefs from tourism operations may be incurred as a result of damage from boat anchors and trampling by tourists at low tide.

Artisanal Fisheries

52. Overfishing is a localised problem in the artisanal fishing grounds. Demersal and reef resources targeted by line and trap fisheries are locally over-exploited, especially around the main granitic islands. Some of the most prized and vulnerable species have disappeared from parts of their natural range or have become extremely rare. Several species of groupers concentrate in large aggregations when spawning, making them vulnerable to open access fishing. All known grouper spawning aggregation sites on the inner islands have collapsed and these species have become rare in these waters. Rabbitfish spawning aggregations remain unprotected and are under increasing pressure. Shark populations around the granitic islands have been decimated over the last century (Nevill, 2005 & 2006, presentations of research work). Octopus and lobster are also under pressure from overfishing. Removal of species, or overfishing of certain species has inter-specific effects within the ecosystem and poses a serious threat to ecosystem functioning and resilience. Shifts in reef fish communities have occurred, e.g. there is strong evidence that increased bio-erosion of corals by abundant black-spined urchins is due to the removal of keystone predators by fishing. Phase shifts on reefs, from coral to algal communities, is a real threat to reef biodiversity, especially where selective removal of herbivorous reef fish occurs (i.e. areas heavily targeted by trap fishers).

53. Nearly all of the coral reef ecosystems in the Seychelles were severely affected by the 1998 bleaching event, associated with a temporal warming of sea surface temperatures. In general, the Outer Islands were somewhat less affected than the Inner Islands. Several coral refugia that were little affected have been identified around the inner islands. They are generally associated with the upwelling of cold water. All but one (in Curieuse Marine National Park) of the identified refugia are found outside of the existing network of marine protected areas (MPAs). There are currently 17 MPAs in Seychelles (SEYMEMP final report, 2004), with a combined area of 228 km²¹². The Marine National Parks are

¹² The Marine Protected Areas consist of:

administered by the Marine Parks Authority (MPA) and cover an area of 62km² around the inner granitic islands. All MPA's are potential fishing grounds (SFA). Poaching is taking place in most of the reserves and especially the 6 Marine National Parks around the granitic islands. Recovery of coral assemblages will depend to a large extent on maintaining intact fish assemblages, which in turn is dependent on fisheries management.

Invasive Alien Species

54. Seychelles is typical of remote islands in the susceptibility of its terrestrial biodiversity to invasive alien species (IAS). IAS out-compete and replace indigenous fauna and flora through predation, elimination of natural regeneration, introduction of diseases and smothering by creepers. Animal IAS like rats, feral cats and other predators can be devastating to the seabird colonies on small islands, reducing levels of recruitment. Seychelles has been successful in eradicating plant and animal IAS from some small islands. There are well-established eradication and control programs on Aride, Cousin, Cousine and Frégate Islands. New programs are being developed for North, D'Arros and Cosmoledo Islands¹³. Although the country has been a leader in respect of small island rehabilitation, and the entry of animals is currently subject to meaningful controls, there is a need to strengthen quarantine controls to prevent the open access of fruits and vegetables, grain, and timber products. The Government is in the process of developing a comprehensive initiative to address this need, which will build capacity and put in place the necessary infrastructure to address this problem at ports of entry. However, there is a need to work with the tourism sector to address the inter-island spread of invasives: A risk that is likely to grow more acute as new tourism facilities are established.

55. Tourism operations increase the risk of IAS in a number of ways. The high-end hotels import an especially wide variety of foods from very diverse geographic origins, increasing the risks of introductions of new IAS. Tourism results in greatly increased movement of people and boats between islands with new tourism facilities, multiplying the chances for the spread of established IAS from island to island. The utilisation of exotic plants for landscaping poses a risk that some of the ornamentals will be invasive¹⁴.

Global Environmental Threats

56. The biodiversity of Seychelles is especially vulnerable to environmental variation associated with global warming and ocean acidification – both traced to the increase in atmospheric CO₂. The two minor coral bleaching events that occurred in 2002 and 2003, indicate that the mega-bleaching event of 1998 was not a one-off isolated occurrence. Despite the massive bleaching, several areas survived because of cold water upwellings. These refugia provide centres for re-colonisation. The identified coral refugia give reason to hope that isolated samples of reef ecosystems may still be conserved. Ocean acidification has only recently been identified as a global environmental problem and its future impacts are still largely unknown.

IB 2 Baseline Course of Action

57. The main economic sectors in Seychelles are highly dependent on natural ecosystems and their

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- 6 Marine National Parks (managed by SCMRT-MPA),
 - 3 Special Reserves (managed by 2 NGOs and a corporate body),
 - 4 Shell Reserves (SFA is responsible),
 - 3 Fisheries Reserves (SFA is responsible),
 - 1 Protected Area designated under the Protected Areas Act (1967) (MLUH is nominally responsible).

¹³ Native birds, mostly seabirds, occur in high densities on the rehabilitated islands. These birds are an important tourist attraction, although their economic importance as such has not been quantified.

¹⁴ One new hotel is under construction on Silhouette Island and another is planned; the proposed staffing complement for one of the new hotels under construction will increase the population of Silhouette from about 150 to over 400 persons. Together with the increased movement of tourists, this will increase greatly the risk of introducing new IAS. Silhouette island is generally considered to be in better ecological conditions than the other large granitic islands.

constituent biodiversity. Seychelles has made, and continues to make, significant investments in biodiversity conservation. The first Environmental Management Programme of Seychelles (1990-2000) successfully guided investment programs in the arena of environment management and biodiversity conservation in particular. However, recent economic growth has been stagnant and GOS budgetary resources are tight. This, combined with the withdrawal of many donors, has made it much more difficult for the GOS to mobilise the financial resources needed for the full implementation of EMPS in 2000-2010.

58. At the same time, recognition has grown of the needs and opportunities for mainstreaming environmental concerns and biodiversity conservation into the day-to-day operations of biodiversity-dependent production sectors and enterprises. Businesses that are dependent on biodiversity must invest in their resource base as a cost of doing business. Also, at a time when Government resources are shrinking, it is recognised that the private sector is more efficient than Government at undertaking many tasks that traditionally have been the remit of the State. Clear opportunities have been identified for a) mobilising private sector investments in the co-management of ecologically sensitive areas; b) directly involving fishers in artisanal fisheries management; and c) increasing the role of tourism operators in enhancing the environmental sustainability of the tourism industry. Biodiversity “mainstreaming” objectives are increasingly reflected in GOS policy frameworks and strategies, although little progress has been made in implementation. There is however one area where Government must continue to play a strong lead role in conservation. This is in the mainstreaming of biodiversity conservation objectives into land, sea and coastal use planning. Seychelles has never produced land use plans of statutory value, but the Government and stakeholder groups in the private sector and civil society have come to a consensus on the need for this.

Gaps in the Baseline

59. The Baseline is the “business-as-usual” scenario that would take place during the next five years in the absence of the planned project. Baseline activities are summarised in the first column of Table 9. In a business-as-usual situation, a range of activities would be undertaken that would have positive impacts on biodiversity. However, most efforts would continue to be focused on protected areas (PA) or on IAS eradication and habitat restoration on small islands, building on the successful management models that have been developed. Baseline activities would address threats to biodiversity in a fragmented fashion, leaving many critical gaps. Importantly, the Baseline does not systematically address the principal threats that emanate from the main production sectors – especially fisheries, tourism, and physical development. Although some 47% of the land area and some 228 km² of the Seychelles EEZ have some form of Protected Area status, this is not sufficient for effective biodiversity conservation. The main economic actors, whose livelihoods are dependent upon the biodiversity of the Seychelles, are only weakly integrated into the Baseline and conservation objectives are poorly integrated into their business-as-usual operations. The following analysis presents the principal gaps in the Baseline. Further details are provided in Table 9.

Table 9: Baseline Course of Action

Category	Baseline	Organisation	Gaps
Enabling environment	<ul style="list-style-type: none"> Continued implementation of EMPS (2000-2010); GIS capabilities available, to abet planning; EIAs required for major developments; Continued capacity building programmes (ad hoc); Existing partnerships and participatory processes for collaborative planning and execution of biodiversity initiatives continue; Regulatory services for inspections and quarantine to minimise the entry/re-entry of IAS at the borders exist; National Invasive Alien Species Committee in place, including most stakeholders; 	MENR ENGOS	<ul style="list-style-type: none"> EMPS steering committee functions at sub optimal level of performance, stakeholder engagement in this process is diminishing particularly outside the environment fraternity; Limited development of partnerships between Government, ENGOS and the private sector for implementation; No commonly accepted standards for biodiversity inventories and monitoring; No environment meta-database or information clearing house; Little dissemination of Biodiversity conservation results and “best practices”; Little use of strategic decision-making models (such as multi criteria analyses); EIA standards inconsistently applied and follow-up enforcement of mitigation measures is weak; Mid and senior-level managers in and out of Government have little capacity for strategic planning, policy development and the facilitation of stakeholder involvement; Need to better integrate IAS management into national development planning
	<ul style="list-style-type: none"> Legislation and policies for land use planning (LUP) exist, but with little emphasis on participatory processes or the integration of biodiversity priorities. The Planning Authority will continue giving ad hoc planning permissions; A District Development Plan Project started that should cover all the Districts (2 District Land Use Plans (DLUP) are in the final stage of approval); GIS unit is operational; 	MLUH	<ul style="list-style-type: none"> The existing legislation for land use planning dates to 1972, and makes no mention of biodiversity conservation priorities; Planning authority approves ad hoc plans, and does not address long term strategic planning needs; The only existing land use plan covers the three main islands and has no legal status; There is no land use plan or sustainable development plan for the other Inner and Outer Islands; No consistent use of biodiversity conservation principles in land use planning; Use of participatory processes for land use planning is weak; No integration of natural resource and environmental economics, including valuation of biodiversity in LUP;
Artisanal Fisheries Sector	<ul style="list-style-type: none"> SFA will continue to undertake planning, surveillance and enforcement functions (based on Fisheries (Reserves) Regulations, 2005); A National Plan of Action for Seychelles’ shark fishery is under development; A project to map the shallow marine environments of a number of the southern islands of Seychelles; SFA is developing a satellite-based fishing vessel monitoring system; 	SFA, Fishing Boat owners Association, individual fishers; NGO’s	<ul style="list-style-type: none"> Inshore fisheries management systems are approaching the limits of what can be done through a traditional top-down management approach. Opportunities for improvement lie primarily in development of collaborative management with fishers; All of the artisanal fisheries except the sea cucumber fisheries remain open access fisheries with no management plans; Enforcement is unsatisfactory; the populations of some large predatory fish are overfished (sharks);
	<ul style="list-style-type: none"> SFA has just successfully completed their first joint management initiatives with fishers – a stock assessment and management plan for sea cucumbers; 	FAO – SFA, Sea cucumber fishing operators	<ul style="list-style-type: none"> The number of fishers specialized in sea cucumbers is relatively small. Approaches are needed to broaden collaborative management efforts to the mainstream of the artisanal fisheries sector.

Category	Baseline	Organisation	Gaps
	<ul style="list-style-type: none"> Critical reef fish spawning aggregation areas that are highly vulnerable to overfishing but that have no protection at present have been identified and management measures have been proposed; 	MASMA -SFA, fishers on Praslin	<ul style="list-style-type: none"> SFA plans to develop collaborative management of the trap fisheries that would integrate reef fish spawning aggregation areas with fishers, but is very uncertain about how to proceed. NGOs also have little experience working with fishers;
	<ul style="list-style-type: none"> SFA and others will continue the monitoring of coral reefs begun in 1998 as part of the Coral Reef Network; National Reef Monitoring Network is set up, including NGO's; 	SFA, MPA-SCMRT, COI	
	<ul style="list-style-type: none"> Integrated Marine Protected Area Systems Plan (IMPASP) was developed through SEYMEMP but has not been implemented; 	MENR, MPA-SCMRT; Private island owners, NGO's	<ul style="list-style-type: none"> Coral refugia that were little affected by the 1998 bleaching event have recently emerged as inshore conservation priorities, but all but one coral refugia remains ungazetted. The MPA network management plan prepared by the SEYMEMP project has not been approved; There is no plan for further rezoning/reclassifying the MPAs;
Tourism sector	<ul style="list-style-type: none"> Continued partnerships for conservation actions including PA management for eco-tourism purposes (e.g. Banyan Tree resort + MCSS; Cousine Island + Cousin + Nature Seychelles; North Island Resort + ICS + PCA) Some private islands resort owners have initiated IAS control programs on their respective island (Fregate, Bird, Denis); Seychelles Island Foundation (quasi NGO) manages Aldabra and Vallée de Mai World Heritage Sites; 	MENR/ MPA/ private sector/ NGOs/ communities	<ul style="list-style-type: none"> No assessment has been done of the potential of replicating these partnerships or of the conditions/incentives that are needed for doing so; There are no guidelines/criteria or standard procedures for lease agreements for PA management for tourism purposes. There is no established monitoring program for MENR supervision and oversight of PA management by the private sector; There has been little analysis of the financial viability and attractiveness for private sector investments in PA management and other conservation activities;
	<ul style="list-style-type: none"> Solid waste and sewage treatment facilities are being put in place. A Strategy Action Plan on Environmental Management Systems (based on ISO 14001) has been developed by Technical Committee. Working Group established; Cooperation with University of Zurich in studying carrying capacity, eco-tourism options and Environmental Management Systems viability; 	Department of Tourism and Transport (DOTT)	<ul style="list-style-type: none"> Very little work has been done in Seychelles to define the conditions under which specific EMS investments are viable; No overall review has been done to identify environmentally sound technologies and best business practices of tourism operators; Need to strengthen safeguards against the inadvertent introduction of IAS through inter island movements
	<ul style="list-style-type: none"> Continued efforts to assess and promote tourism development strategies that both conserve the environment and that aid in marketing; Seychelles as a quality tourism destination DOT has established a policy to promote the development of a national sustainable tourism label. 	STB	<ul style="list-style-type: none"> No tourism operators are eco-certified, and the existing international eco-certification schemes are judged insufficient at this time; Lack of relevant, in-depth tourist profile and economic and marketing studies; No program or resources identified for the development of the sustainable tourism label.

Normative Solutions needed to Address Threats

Enabling conditions.

60. The baseline situation is typified by numerous but fragmented efforts to manage the natural environment. However, these would be compromised, to a greater or lesser extent, by weak Systemic and institutional capacities. Biodiversity inventories would remain incomplete, and the coverage of monitoring efforts patchy. What data that does exist would not be readily accessible as data management systems are poorly constructed. Systematic evaluations of the effectiveness of conservation actions at the site level would also be lacking. The land use planning legislation is also weak, in that it does not provide for effective measures to integrate biodiversity management priorities into decision-making systems. There is likely to be a paucity of capacity for strategic planning—a weakness amplified by the inadequacy of systems for explicitly involving civil society and private sector entities in planning and monitoring investment activities. Taken together, these gaps will compromise planning efforts, as needed to ensure that physical infrastructure such as roads and jetties are designed, located and constructed to minimise negative externalities. A suite of measures is needed to create an effective enabling environment for the pursuit of biodiversity management objectives within production landscapes and sectors. A strong legislative framework is needed to facilitate the development of land use and sector plans that properly integrate biodiversity conservation priorities. Capacities will need to be installed to collect, store and analyse biodiversity data in order to define conservation priorities and facilitate integrated planning processes. Furthermore, capacities for participatory land use planning and multi criteria decision making need to be developed to facilitate biodiversity ‘mainstreaming’ within planning processes. The ability of government, the private sector, and civil society stakeholders to work effectively together will also need to be enhanced.

Artisanal fisheries

61. Under the baseline, artisanal fishery resources would remain as unmanaged, open access resources and pressures on them would continue to increase. This is likely to lead to inter-specific impacts down the food chain, with adverse consequences for biodiversity and ecosystem resilience. The Government’s ability to enforce top-down regulatory approaches would be outpaced by threats. Fishers would have little or no-incentives for self-regulation of their activities as open access would imply that they do not reap the benefits. The resolution of these problems will demand a paradigm shift in the manner in which artisanal fisheries are managed, towards an ecosystem based management approach that directly involves fishers in management endeavours. Self-regulation would allow for much more intensive and cost-effective management of the resource. This could best be done through the development of rights-based co-management systems, designed and adapted to suit the needs of different types of artisanal fisheries. Of particular importance will be the need to augment traditional management systems with spatial management tools, that allow fishery refugia to be protected, an action that could both enhance biodiversity management while improve recruitment potential. This would involve strongly participatory, adaptive management approaches with strong monitoring components and with the clear definition of the roles and responsibilities of each party.

Tourism sector

62. The Seychelles is taking a number of significant steps to improve the environmental conduct of the tourism industry. In particular, attention is being paid to the mitigation of pollution from developments. Solid waste collection and sewage treatment facilities are being put in place, and new hotel developments are being required under their development licenses to install pollution control devices. However, there would be little increase in the present low-level of investments in biodiversity conservation by tourism operators, except on small islands that are under the full control of individual operators. Existing policies to promote private sector investments in biodiversity conservation would not be converted into operational programs with established criteria, guidelines and established oversight mechanisms. Secondly, industry involvement in conservation management would be driven by regulatory demands, without strong incentives, nor codes of conduct and

accompanying management schemes championed by the industry itself. This is not cost effective, nor ultimately sustainable—meaning that a new approach needs to be fashioned. A top priority will be to engineer the direct involvement of industry leaders and the SHTA in the establishment, promotion and widespread adoption of high environmental management standards (EMS) for their industry. One of the most important tools for achieving this would be the development of a certification scheme for tourism operators. In another vein, there is a clear opportunity for tourism operators to invest directly in, and to secure benefit from, the management of terrestrial and marine ecologically sensitive areas. Tourism operators must work in partnership with government and other stakeholders to establish appropriate criteria, guidelines, monitoring and oversight mechanisms to realise this opportunity. The Government will need to encourage such initiatives by developing appropriate incentive programmes.

IB 3 Barriers to the Conservation of Biodiversity

63. Barriers have been identified through an iterative, participatory process involving a wide range of stakeholders. The problem analysis involved a literature review, stakeholder interviews, analysis effected by national and international consultants and a formal national stakeholder workshop in November 2005. The main barriers that have been identified through this process are summarized as follows: a) insufficient capacities at the systemic level; b) insufficient capacities at the institutional level; c) poorly defined tenure and usufruct rights; and d) insufficient know-how and lack of proven models to adapt production systems.

Capacity Deficits at the Systemic Level

64. **Legislation.** The Town and Country Planning Act of 1972 forms the legal base for land use planning. It is presently outdated and does not adequately address biodiversity management concerns. One of the glaring gaps in the present legislative system is that there is no legislation regulating, approving or controlling physical development activities in coastal waters and oceans. Much of the legislative authority that does exist is often not fully exploited.

65. **Weak Management of Knowledge** on biodiversity or related issues is a key barrier to the conservation and sustainable use of Seychelles' biodiversity. The biodiversity information system is fragmented and incomplete. There are no agreed standards for biodiversity inventories and monitoring and much of the data are difficult to compare. The lack of a coordinated information management system for biological resources inhibits integrated, inter-sectoral, conservation efforts. There is no meta-database, or clearing house, for data to assist end-users to determine what information exists, which institutions possess the data and the conditions of data access. Biodiversity conservation priorities have only been systematically defined for some of the larger inner granitic islands. Inventory data is incomplete for the remaining smaller inner islands, and is nearly absent for many of the Outer Islands, with the exception of Aldabra. Biodiversity information is frequently outdated and is not commonly integrated into planning work undertaken by agencies such as MLUH. GIS systems have been developed in MENR and MLUH, but are used more as a mapping tool than as a strategic planning and decision making tool. There are a limited number of qualified environmental professionals capable of undertaking inventory work and assessments.

66. The total economic value of biodiversity has been poorly documented and is poorly understood by decision-makers, the private sector and the general public. The use of economic tools, especially environmental economics, is poorly developed in land use planning and in the identification of viable private sector investments in biodiversity friendly activities.

67. **Weak Stakeholder Engagement.** The mechanisms for integrating environmental and natural resources management into long-term, participatory development planning processes have significant weaknesses. Capacities for strategic participatory planning, and policy development are particularly weak. Numerous assessments, including the National Capacity Self Assessment (NCSA, 2005), as well as an EMPS

Sectoral Review (Nevill, 2004), have found EMPS coordination systems to be weak. While EMPS has sought to improve communication and cooperation, more effort is needed to establish and to regularise the principles for co-operative working relationships between Government and NGO conservation organisations. The respective roles and responsibilities of the Government, private sector and NGOs need to be defined in order to ensure efficient use of the limited expertise available within the country. More effective processes or forums are needed to encourage collaboration, ecosystem-based partnerships for inventory, research and rehabilitation projects, both within the NGO community and between it and Government.

68. There are insufficient incentives for Government – private sector – community partnerships and uncertain requirements for integrating conservation partnerships into private sector investments. The costs & benefits of private sector investments in biodiversity friendly practices are poorly defined. For example there have been few thorough economic analyses of the returns and/or profitability of investment options in Environmental Management Systems (EMS) techniques. No clear incentives have been developed to interest private sector investments in PA management or other conservation activities. Private sector investment should be encouraged to contribute to biodiversity conservation through various forms of partnership with conservation groups and local communities. Currently, there are no requirements to ensure that there is no net loss of major habitat values as a consequence of development or to invest in offsets in compensation for negative impacts. There are some encouraging examples of conservation partnerships but more commitment to, incentives for and possibly requirements for such cooperative initiatives are needed.

Capacity Weaknesses at the Institutional Level

69. **Planning:** There are limited institutional capacities for land use planning and it is difficult for Government to retain expertise. The 1992 Land Use Plan only covers the three main populated islands but is used only as a reference document. Biodiversity priorities are not adequately identified and integrated into planning and zoning activities. No land use or sustainable development planning has been done for the other granitic islands and the Outer Islands. There are no island-specific land use management strategies.

Resource Tenure and Access Rights

70. Sustainable use and conservation of natural resources usually demands as a prerequisite clearly defined resource tenure and access. Artisanal fisheries in Seychelles have always been characterised by open access. As pressures on the resource increases, open access can lead to accelerating resource degradation and loss. Open access is also a constraint to the pursuit of fishery co-management. Nearly all artisanal fisheries have already evolved some level of resource partitioning – a precursor to the formal definition of tenure or formal access rights. However, until recently artisanal fishers in the Seychelles have been relatively poorly organized as an economic interest group. Further improvement in fisheries management will necessitate the empowerment of representative fisher groups to control access and to manage inshore waters complemented by support for capacity building for these groups. The potential for joint management of ecologically sensitive areas with private sector operators is severely constrained by resource tenure/access rights. Appropriate conditions must allow the operator to realise a profit and must involve a clear definition of roles and responsibilities for each partner. The length of the lease and conditions for renewal are critical factors that will need to be systematically addressed to address this issue.

Know-how and Models for Sustainable Management

71. **Co-management:** Current legislation provide for an array of conservation designations in different sectors (e.g., forest reserves, fisheries reserves etc.), in tandem with formal protected areas; these various designation tools need to be organised into a co-ordinated management system, in combination with collaborative management mechanisms, involving civil society and the private sector.

72. **Models for Fisheries Co-management.** The management of artisanal fisheries has been characterised

by top-down approaches by Government regulators, focussed on gear restrictions and the seasonal closure of fishing grounds. Although capacities for fisheries management in the Seychelles are relatively strong, the administration of such approaches is inherently costly, and restrictions are often difficult to enforce over large areas. The Government has acknowledged that the efficacy and cost effectiveness of artisanal fisheries management could be improved were collaborative management approaches to be instituted, involving partnerships between Government and artisanal fishers. The SFA has just completed an initial, collaborative management project for sea cucumbers which has proven to be relatively successful. However there is limited capacity to extend such a paradigm to cover other artisanal fisheries. The trap fisheries and the demersal line fisheries have been identified as priorities in this regard. However, appropriate management systems need to be developed. While a number of models have been developed in other parts of the world, they will need to be adapted to local conditions. A key priority is to develop spatial management tools to protect spawning aggregation areas and other ecologically sensitive areas. No-take-zone (NTZ) management has emerged in recent years as one of the most effective management systems for the ecologically highly complex coral reef and lagoon ecosystems. Under NTZ management, roughly 15-35% of the total area is set aside as no take zones. In time, fishery productivity in fishing areas can increase, owing to an increase in spawning biomass and recruitment from the NTZ.

73. Rights based management approaches involving geographically defined access rights and or limited entry rights will need to be developed, with tied management circumscriptions. One of the key conditions for joint management is the definition of suitable forms of partnerships – involving Government, private investors, ENGOs, fishers associations, and communities. There are clear opportunities for tourism operators to work in partnership with fishers associations on the management of coral refugia or non-gazetted fishing grounds. Strategic selection of No Take Zones can serve the commercial interests of both tourism operators and fisher groups. The development of successful management models will also require the assessment of the capacity needs for the partners involved and the development of these capacities.

74. **Models for tourism operations.** At present, international standards, including environmental standards, are weakly applied in the tourism industry. It is alleged that only a few tourism operators are aware and understand the importance of investing in biodiversity conservation except on isolated private or leased islands. A recent study (Schneider, 2004) on eco-certification for tourism operators recommended, in consultation with the industry, the development and introduction of a “Seychelles” label, on the basis of strict, transparent, fair and externally checked criteria. This could be affiliated with the best international label at a later point in time (none are deemed suitable for Seychelles conditions at this point in time). The development of a Seychelles specific sustainable tourism label integrating environmental, social and economic factors, has now become Department of Tourism policy. In a similar fashion, there is interest in promoting international standards for environmental management systems (EMS) for tourism operators, such as ISO 14001. This may be pursued directly with ISO and the standards could be integrated into the sustainable tourism label or individual EMS techniques may be promoted for adoption simply based on the financial returns on these investments. An Action Plan for the promotion of the ISO 14000 EMS in Seychelles has been finalized by a Technical Committee on EMS, but it is yet to be implemented.

1B.4 Stakeholder Analysis

75. There are three main groups of stakeholders for this project – Government agencies, ENGOs and production sector operators. A complete list of stakeholders and an accompanying Stakeholder Involvement Plan is provided in Annex III. The Project team undertook extensive consultations with interested parties through a series of presentations, interviews, and workshops during the preparatory phase. Progress of the work was reported monthly to the EMPS Steering Committee, which comprises all major stakeholders.

PART II: Project Strategy

2.1 Project Rationale and Policy Conformity

76. The project responds to the critical threats to biodiversity conservation by addressing barriers to mitigation. The Project is based on the precautionary principle. Although biodiversity is generally not under severe immediate threat in Seychelles at the present time, threats are expected to grow in time. The Project seeks to build the adaptive management capacities needed to integrate biodiversity management into production sector operations and to maintain it, as production sectors undergo change. The Project will build capacity for society and institutions to change management paradigms as external situations change. The Project thus adopts a learning by doing approach – demonstrating good practice and systematically integrating it into production sector activities – building the capacities to ensure success in this endeavour.

77. The project will improve the systemic and institutional capacities for mainstreaming biodiversity management into production activities by strengthening policies, the legal framework, and cross-sectoral institutional capabilities. The project will target two key production sectors – artisanal fisheries and tourism. In particular, the project will seek to make biodiversity conservation part of the business-as-usual operations of artisanal fishers and tourism operators. The project will develop co-management models, and the capacity for replication of these models, for: a) the artisanal trap fisheries around the granitic islands; and b) for the demersal line fisheries that go out to the limits of the submerged Mahé Plateau. The tourism component will cover all tourism operators throughout the Seychelles. It will involve: a) investments by tourism operators in biodiversity management of ecologically sensitive sites – both gazetted and non-gazetted; and b) adoption of international environmental standards for tourism operations.

2.2 Project Goal, Objectives, Outcomes and Outputs

78. The project will contribute to the achievement of the following goal:
The functional integrity of the terrestrial and coastal ecosystems is secured now and into the future, thus providing a base for sustainable development.

79. The project will be responsible for achieving the following project objective:
Biodiversity conservation objectives are integrated into key production sectors of the economy.

80. The Project Objective will be achieved through four Project Outcomes:

<i>Outcome 1</i>	<i>Systemic and institutional capacities for mainstreaming biodiversity management within and across sectors are strengthened.</i>
<i>Outcome 2</i>	<i>Methods and means for integrating biodiversity and artisanal fisheries management are in place.</i>
<i>Outcome 3</i>	<i>The tourism industry is addressing biodiversity conservation needs as part of good practice in business operations.</i>

Outcome 1: Systemic and institutional capacities for mainstreaming biodiversity management within and across sectors are strengthened.

81. Information and knowledge management capacity for biodiversity mainstreaming is developed. Common standards for biodiversity inventories, assessments and monitoring will be developed and applied. Existing data on terrestrial, marine and coastal biodiversity at the species, habitat and ecosystem levels will be synthesised and used to better define biodiversity conservation priorities. Key knowledge gaps in the biodiversity database will be identified. Targeted new inventories will be undertaken to fill pressing gaps. A

biodiversity meta-database will be developed providing easy definition of existing information, where the information is housed, and access. The meta-database will also be used to disseminate lessons learned in the region and more broadly. A gap analysis will be conducted for all priority sites for biodiversity conservation. This will lead to the identification of appropriate land use, feeding directly into the land use planning process. Institutional capacities to utilise GIS tools will be developed in support of LWC planning.

82. Land, Water and Coastal Use Plans integrating biodiversity priorities developed and implemented for all Islands. The legal basis for participatory Land Use Planning will be revised (i.e. Town and Country Planning Act, District Land Use Planning regulations, EIA regulations). Capacities will be built for participatory Land Water and Coastal (LWC) planning that integrates biodiversity conservation needs. A strong emphasis will be placed on district-level LWC planning. An LWC sustainable development plan will be developed for the Outer Islands. This will integrate a gap analysis for the Outer Islands and economic analyses of identified LWC use options. The planning process for the Outer Islands will also seek broad participation from all interested stakeholders. A key focus of such planning will be to ensure that physical infrastructure, associated with the tourism industry or other sectors (such as jetties, roads, or paths) are located to minimise damage to the natural environment.

83. Stakeholders are effectively engaged in “mainstreaming” biodiversity management into production. Implementation of the project will be built on an adaptive management approach. One of the main tools for this will be an annual, stakeholder review of all the components of the project. The review will be led by non-Governmental stakeholders, especially the ENGOs. The review will determine whether the new knowledge management standards are being applied and whether project interventions are being grounded on sound science. Stakeholders will be engaged to review what has been done, to identify what does and does not work and to recommend changes in approach where necessary. Training and support will be given to the stakeholders on the Project Steering Committee and the steering committees for each project component – the training will cover the integration of biodiversity into production sectors and management effectiveness for oversight committees. Further training will be targeted towards the strengthening of skills of middle and senior managers in environmental governance-i.e. strategic planning, policy development etc.

Outcome 2: Methods and means for integrating biodiversity and artisanal fisheries management are in place.

84. Pilot co-management systems are developed for artisanal fisheries. The project will test and develop co-management systems for artisanal fisheries that are deemed appropriate for a participatory, rights-based management approach and that are compatible with larger biodiversity conservation objectives. This will include pilot management systems for: a) the trap fisheries; and b) the demersal line fisheries that extends out to the limits of the Mahé Plateau¹⁵. Fishing rights will be defined building upon the resource partitioning wherever this already exists, e.g. as it does for the trap fisheries in an informal way. The management systems for each pilot will be developed jointly between SFA and the fishers holding the fishing rights to the pilot area. The fishers will be organised into formal or informal institutions as they deem appropriate. The project will support a range of capacity building support measures for the fishers associations. Fishers will be responsible for self-policing compliance with agreed co-management rules and regulations. Joint monitoring systems will be developed and implemented by SFA and fishers working in collaboration. All pilot systems

¹⁵ Demonstration sites will be selected using the following criteria: a) Level of biodiversity significance (the existence of ecologically important ecosystems, e.g. reefs); b) existence of threats from over fishing; and c) enabling social and institutional environments (receptive fisher communities, informal groupings or associations). The sites will also be selected to provide a good cross sample of different management challenges. The following priorities have been identified: (1) Fisheries co-management area for the trap fishery (south Praslin and adjacent areas) integrating existing PA, new fisheries reserve(s). The demonstration is replicable over an area of 2000 km² of fishing grounds). (2) Fisheries co-management areas and associations for the inshore line fishery, integrating existing PAs, new fisheries reserve(s) and a rights-based management system in sensitive areas on the Mahé Plateau (the area for replication covers 4544 km² in inshore areas and ca. 37,000 km² in offshore areas).

will be adaptive management systems. Fishers, SFA and other partners will periodically review the strengths and weaknesses of the techniques and approaches being tested and will adapt them as needed. The SFA will play the lead role in performing stock assessments and its capacity to monitor ecosystem status will be built through training and the induction of knowledge management systems.

85. Capacity to replicate and adapt the piloted management systems is developed and applied to new areas. As each pilot management system is adapted and “proven”, emphasis will shift towards the development of institutional capacities for replicating and adapting the pilot systems throughout all the appropriate artisanal fishing grounds. Capacities for replication will be built within SFA, FBOA, pilot fishers’ associations and ENGOs. Guidelines for collaborative management systems will be developed and knowledge management systems will be developed. Capacities will be built through actual replications of the pilot; at least one replication will be initiated for each successful pilot fishery management system. Lessons learned will be disseminated actively, also internationally.

Outcome 3: The tourism industry is addressing biodiversity conservation needs as part of good practice in business operations.

86. A Sustainable Tourism Label and Environmental Management Systems will be adopted by tourism operators. The project will provide support for the development of a national sustainable tourism label¹⁶. Environmental Management Systems (EMS) for tourism operators will be promoted. Support for marketing the certification scheme and EMS in the industry will be provided by STB and DOT. This will be facilitated through the development of a clearing house mechanism for tourism operators providing information on environmentally sound technologies and practices, accompanied by information on the associated costs and benefits. Harmful development practices will also be highlighted and discouraged through industry led advocacy efforts. The investment guidelines for submitting “project memoranda” to the Seychelles Investment Bureau (SIB) for new tourism developments will be strengthened, to address biodiversity management needs. These will be in line with revised planning requirements, especially highlighting biodiversity concerns and management options (off-sets, partnerships, etc.). To encourage tourism operators to invest in these practices, a system of awards and public recognition for outstanding tourism operators and sponsors will be instituted. This will further lead to networks of environmental champions, with the active involvement of the SHTA and possible other tourism associations (e.g. divers association).

87. Incentives and sustainable financing for mainstreaming of biodiversity in the tourism sector are in place. Existing policies and incentives concerning tourism (e.g. the Tourism Incentives Act) will be reviewed to determine the effects, both positive and negative, on biodiversity conservation. This participatory review will involve the private sector, SHTA, ENGOs and Government, with the Ministry of Economic Planning & Employment playing a key role. Steps will be taken to improve the incentives framework for private sector investment in conservation, to take effect through quantity or price controls that allow for adaptive choice and decentralized decision making by enterprises whose behavior is to be modified. Examples of possible economic instruments include charges/fees, subsidies, performance bonds, and tradable development rights. These may be instituted through the development of subsidiary regulations under the Tourism Incentives Act. The project will supply specific technical expertise and provide support for economic and financial modeling to establish the costs and benefits of different schemes. A preliminary analysis of possible economic incentives for biodiversity conservation has been undertaken during project preparation. A number of economic instruments are already employed in the Seychelles. A summary of the new interventions that will be considered – building where possible on existing schemes is provided below.

¹⁶ At some point in the future, this may qualify for a viable and recognised international label as well, when an appropriate certifying body emerges.

Table 10: Existing environmental incentives and possible new interventions.

Instrument	Existing examples in Seychelles	New Interventions
Pollution charges, taxes and fees	Sewage charge Solid waste charge Water charge	Review pricing of water, solid waste and sewerage charges
Performance bonds		Require new developments to pay and to buy environmental performance bonds
Liabilities	Criminal and civil sanctions (Environmental Protection Act)	Revision of existing laws
Information provision	Environmental audit of Banyan tree hotel Product labeling	performance rating of companies, hotels Pollutant release and transfer register Product labeling by Seychelles authority
Voluntary mechanisms	Phase out of CFC (agreement between government and industries) 'Industrial park' (STAR uses waste from sewerage treatment plant for production of compost)	Voluntary eco-certification schemes for tourist hotels Implementation of ISO 14001 work programme on EMS

88. Joint management systems involving tourism operators developed for biodiversity conservation in ecologically sensitive areas¹⁷. The project will identify, promote and support opportunities for private sector direct investments in the management of ecologically sensitive areas. Criteria, roles and responsibilities and conditions of joint management leases will be defined. Systems for oversight & monitoring of partnership activities will be developed. The Project will provide capacity building support to operators for management and self-monitoring. The criteria for joint management will specifically allow for a wide range of joint management partnerships that may include private investors working in partnership with ENGOs, trade associations or communities as well as Government. Guidelines for management will be developed.

2.3. Project Risks and Assumptions

89. The identification of risks was initiated at a very early stage of project development. An economic study conducted as part of project preparation was a key tool for identifying and clarifying some of the important risks. Key risks were discussed and ranked at a major stakeholder workshop conducted in November, 2005. A listing of the main risks, risk ranking and risk mitigation measures is presented below.

Table 11: Risk Analysis

Risk	Risk Rating	Risk Mitigation Measures
Cross-cutting systemic and institutional capacities		
1. Conflict between stakeholder groups emerges.	M	<ul style="list-style-type: none"> • Formal MOUs will be used to define roles and responsibilities. • Steering committees and other stakeholder groups will receive training on governance and conflict resolution. • Project activities are designed in a way that will require cooperation in order to benefit from project support. • Data dissemination and sharing procedures will be established that are mutually beneficial for all concerned.
Artisanal fisheries		

¹⁷ Demonstration sites will be selected using the following broad criteria: a) Biodiversity significance of the target; b) active management to mitigate threats; c) accessibility in order to establish activities and for wider demonstrative effect; and d) the existence of a positive enabling environment, including supportive stakeholders, institutions and receptive tourism enterprises.

Risk	Risk Rating	Risk Mitigation Measures
2. Fishers prove to be too distrustful of Government and too independent (of character) to enter into co-management systems with Government and to form effective associations for self-policing under collaborative management of near-coastal fisheries.	M	<ul style="list-style-type: none"> • Co-management systems will be investigated and designed in collaboration with fishers in conformity with local circumstances, so that the advantages to fishers outweigh the disadvantages. Key factors will be their control of access rights and their empowerment for decision-making. The pilot will build on existing management measures being instituted locally. • Close attention to the choice of support agencies capable of gaining and holding fishers' trust. • Develop conflict mitigation measures.
Tourism		
3. Inability to obtain universal acceptability of the sustainable tourism labelling scheme that is chosen for Seychelles.	M	<ul style="list-style-type: none"> • Continue to work with industry leaders in the development of the labelling system. • Work closely with appropriate Government agencies to develop incentives for tourism operators to qualify and to adhere to the labelling system.
4. Private sector investments in conservation and rehabilitation of some small, private islands will not be sustained over time because they are not financially viable but rather driven by wealthy personalities.	L	<ul style="list-style-type: none"> • Wealthy individuals dedicated to nature conservation will find the appropriate legal and financial mechanisms to ensure the sustainability of their initiatives. • Develop appropriate incentives such as tax rebates for conservation work.
Macro-economic risks		
5. Major economic changes to production sectors, with consequent impacts on biodiversity, could result from potential macro-economic changes that could be triggered by factors such as the devaluation of the rupee, measures imposed to reduce high level of indebtedness or from continued major increases in the world price of petroleum.	M	<ul style="list-style-type: none"> • The impacts of these factors will be analysed and integrated into land/water/coastal use planning. Economic analyses will be done of land use options under different scenarios. • Devaluation could lead to greatly increased local food production. Land use planning will provide for zoning for adequate agricultural land. • The "high end" tourism markets will be the least affected by higher fuel and energy costs. • Artisanal fisheries management will better conserve this resource base if high energy prices lead to a shift away from the energy intensive industrial fisheries and increased pressures on artisanal resources.

*Risk rating – H (High Risk), S (Substantial Risk), M (Modest Risk), and L (Low Risk). Risks refer to the possibility that assumptions, defined in the logical framework in Part 3, may not hold.

2.4 Alternative Strategies Considered

90. This project has gone through a long development process. It was originally proposed as a joint UNDP/World Bank integrated ecosystems management project, but the original concept was poorly focused and included a strong PA component. The Project was reclassified as a BD2 Mainstreaming project, to give it better definition. The strategic priority for protected areas was considered, but it was found that a PA focus would have ignored the larger threats from the key production sectors of the country. During the development of the project under the BD2 Mainstreaming Strategic Priority, one of the key alternatives considered was the expansion of the project into other production sectors beyond artisanal fisheries and tourism. Another alternative was to include a component on IAS eradication and habitat restoration. These alternatives and the rationale for the approach selected are detailed in Table 12 below.

Table 12: Alternative Strategies and Rationale for the Approach

Alternative	Rationale for Approach Selected
Focus the Project on improving the effectiveness of the management of protected areas (PAs)	A pure protective area focus would have been too narrow; it would have ignored the larger threats coming from the production sectors – especially artisanal fishing, and tourism. The unilateral creation of MPA in the past resulted in the alienation of fishers and has diminished political support for MPA. The development of co-management systems with fishers will develop sustainable fisheries management tools that might later be integrated in MPA management, as they are in many parts of the world. Seychelles has an exceptionally large percentage of its terrestrial area that is gazetted as some form of conventional PA under Government or parastatal control. However, some of the PAs are “paper parks” with little or no management. At a time when Government resources are shrinking, one needs to be looking for private sector investments and new forms of partnerships for the management of PAs and ecologically sensitive areas. The Strategic Priority on Mainstreaming allows for private sector investments within the larger context of mainstreaming biodiversity into production sectors.
Include additional production sectors within the project scope.	Industrial fisheries is economically more important than the artisanal fisheries sector and covers the deep-water open ocean portion of the exclusive economic zone of Seychelles. However, it is already covered by other, regional GEF projects. It was decided the project would focus exclusively on the artisanal fishing grounds within the Mahé Plateau. Inclusion of the agriculture and forestry sectors was also considered. However, the main impacts of agriculture on BD were considered to stem from land use. These issues are included at cross-cutting level in the project. Specific threats from agricultural production on biodiversity are not considered to be major at this time. Furthermore, questions of agricultural sustainability will be covered under a planned UNDP/GEF Medium Sized Project (MSP) on Sustainable Land Management (SLM). The forestry sector is extremely small. Forest degradation will also be dealt with under the SLM MSP.
Invest in IAS eradication and rehabilitation.	Seychelles has actually been a leader in implementing IAS eradication and habitat rehabilitation efforts, with numerous examples of private sector tourism operators’ investments in IAS eradication and rehabilitation of small islands. The country is developing a comprehensive initiative to strengthen capacities and install infrastructure to better regulate the import of products and live plants that might provide pathways for the introduction of invasive species or become invasive. This will address the need to improve quarantine systems, -- a need that transcends the focus on the two main production sectors: tourism and artisanal fisheries -- meaning that the issue is best addressed separately in parallel to the project. The project will work with tourism operators to ensure that safeguards are in place to ensure the inadvertent spread of IAS through inter island movements of visitors. The issue will also be accommodated in the Land Use Plans that will be developed, reducing the risk that infrastructure development will provide pathways for IAS colonisation.

2.5 Expected Global and National Benefits

91. A range of economic benefits are associated with Seychelles biodiversity. The total economic value of Seychelles biodiversity would include:

- a) **Direct use values** from goods such as fish, birds’ eggs, timber, meat, fruit, vegetables, shells, coral, and sand, which are either consumed directly, or are used as raw materials in production processes.
- b) **Indirect use values** are best exemplified by the attractions that diverse marine life on coral reefs, whale sharks, giant tortoises, colonies of sea birds and luxuriant tropical vegetation hold for the tourism sector.
- c) The presence of terrestrial and marine biological resources, and their diversity, supports a range of **ecological services** (e.g. watershed catchment protection, beach protection, soil erosion control and provision of sink for wastes and residues).
- d) **Option and existence values** – the premium placed on maintaining biodiversity for possible future uses, and the intrinsic significance that biodiversity holds, regardless of its use. Data on these values

are not available for the Seychelles. Both option and existence benefits would be significant components of the total economic value of biodiversity, and it should be noted that they are partly captured in tourism revenues and in donor and Government expenditures on biodiversity conservation.

92. **Global Benefits:** Seychelles is part of one the world's greatest biodiversity hotspots with high levels of endemism for its terrestrial biodiversity. The marine biodiversity has more recently been found to be characterised by rich levels of biodiversity. These resources provide a range of global benefits not captured at national level including existence values and option values. Moreover, the natural environments of the Seychelles are an important asset for the tourism industry, providing recreational opportunities and scenic and other amenity values to international visitors. However, these resources are under pressure and absent intervention, threats to biodiversity are expected to increase. The principle global environmental benefits of the project derive from the added security provided for ecosystems and constituent flora and fauna through effective integration of conservation objectives into production sector practices. Planned strategies are expected to improve the cost effectiveness and sustainability of biodiversity conservation activities.

93. **National Benefits:** Biodiversity underpins most economic activities in the Seychelles. Loss of biodiversity could have major, negative economic impacts for the country. Unintended consequences, positive or negative, may occur from global economic events that lie outside of the control of the Seychelles. Any negative changes in tourism and/or industrial fishing will put considerable strain on economic coping mechanisms, especially in areas of the more 'informal' economic activities, particularly artisanal fishing and tourism. This would in turn threaten the natural resource base and may accelerate biodiversity depletion. The use value of biodiversity in Seychelles is summarised below. National benefits will be obtained by the maintenance of economic use values linked to the tourism and artisanal fisheries sectors, as well as employment, that might otherwise be forfeited should biodiversity be extinguished.

94. Beneficiaries include government agencies mandated with responsibilities for environmental management, who will benefit from enhanced technical capacity for biodiversity management. Improved cross-sectoral institutional cooperation systems, coupled with stakeholder participation schemes will reduce conflict between stakeholders, and lead to a better deployment of funds and human resources. The NGO constituency will be actively involved in the delivery of services for demonstration projects, including community mobilisation, and planning and executing adaptive management schemes. This constituency will benefit through an immediate enhancement of capacity, and an improvement in their funding position, through the development of private sector funding initiatives. At the local level, the project will yield benefits to communities by improving the sustainability of artisanal fisheries and thus livelihoods. Finally the project will help to ensure the long-term ecological sustainability of the main production sectors, thus reducing the accruing risk and liabilities from the destruction of natural assets vital to sustainability.

Table 13: Seychelles Biodiversity Use Value and resource based employment
(5.6 SR/US\$)

	<i>Value (million SR) 2003</i>	<i>Employment</i>
Tourism	779.6	8300
Industrial and semi-industrial fishing	1118.6	4000
Other revenue from industrial tuna fishing	350.9	
Artisanal fishing	59.8	1800
Agriculture and forestry	74.3	3800
Total biodiversity value	2338.2	17900

SOURCES: Government revenue: "Seychelles Biodiversity: Economic Assessment", IUCN 1997. Other data: Analysis of data from "Statistics Abstract 2003", Republic of Seychelles

2.6 Country Eligibility and Drivenness

Eligibility for GEF Funding

95. The Government of Seychelles is a recipient of UNDP assistance and meets the eligibility criteria for GEF Funding. The project is consistent with the GEF Operational Strategy and Operational Programme (OP) 2 for the 'Biodiversity' Focal Area: Coastal and Marine Environments. The project concentrates on GEF Strategic Priority 2 (BD2): "*Mainstream biodiversity in production landscapes and sectors*" The project is consistent with guidance prepared by GEF on activities under this strategic priority the specific objective of which is "to integrate biodiversity conservation in production systems and sectors to secure national and global environmental benefits. [The operational emphasis is flexible] to allow for the development of tailored activities based on understanding of country context, biodiversity conservation problems, opportunities and demand." The Project adopts STAP guidance to the GEF Council on activities under BD II: [Mainstreaming Biodiversity in Production Landscapes and Sectors Report](#) (GEF/C.24/Inf.11). The project addresses the following elements of the GEF Strategy:

- (i) Strengthening policy to accommodate biodiversity management needs in production activities
Integrating biodiversity conservation objectives into spatial and sectoral planning systems;
- (ii) Addressing barriers to the uptake of biodiversity production systems in key production sectors, in particular by strengthening management capacities at the systemic and institutional levels;
- (iii) Establishing schemes (i.e. certification initiatives) to recognize good practices at the enterprise level;
and
- (iv) Demonstrating good production practices at the site level and engendering replication.

Eligibility under the Convention on Biological Diversity (CBD)

96. Seychelles ratified the CBD in 1992, along with the Framework Convention on Climate Change. The proposed project will fulfil a number of provisions of the CBD convention, including Article 6, General Measures for Conservation and Sustainable Use, Article 7, Identification and Monitoring, Article 8, *In Situ* conservation, Article 10, Sustainable Use Management and Article 12, Capacity Building.

97. The project will play a critical role in achieving the 2010 Biodiversity Target, especially in regard to the following goals: a) reducing the loss of biodiversity; b) promoting sustainable use of biodiversity; c) addressing major threats; and d) maintaining ecosystem integrity. These goals will be difficult to realise in the Seychelles archipelago without project intervention. The project will address a number of elements in the proposed thematic work programme on 'Island Biodiversity'. Table 14 lists the specific targets of this Programme that will be addressed. The project also addresses elements of the thematic work programme of "Marine and Coastal Biodiversity". The project will also take into account the CBD guidelines on "biodiversity and tourism development", which deal with activities related to sustainable tourism development in vulnerable terrestrial, marine and coastal habitats of major importance for biological diversity. The project also has relevance to the cross-cutting area on "Impact Assessment" and the attached guidelines.

Table 14. Elements of the Draft Programme of Work on Island Biodiversity addressed by the Project.

GOAL	TIMEFRAME & GLOBAL TARGETS
1. Conservation of island biodiversity	2. By 2010 10% of island species are maintained, restored, or their population decline reduced.
	6. By 2010, scientific capability, institutional support, legal frameworks, and infrastructure are in place to inventory and monitor the components of island biodiversity.
2. Sustainable use of island biodiversity	7. By 2010, unsustainable consumption of biological resources and its impact upon biodiversity is reduced
	9. By 2010, island biodiversity based products are derived from sources that are sustainably managed, and production areas managed, consistent with the conservation of biodiversity and in order to support human well-being.

GOAL	TIMEFRAME & GLOBAL TARGETS
3. Address the threats to island biodiversity	10. By 2010 ,pressures from habitat loss, land use change and degradation, and unsustainable water use, are significantly reduced.

Country Drivenness

98. The Government of Seychelles has always made a very strong commitment to biodiversity conservation. Seychelles has done more in this field than just about any other SIDS – especially within the African region. Seychelles was the second country to approve the Convention on Biodiversity. The country has established a large PA network. An energized NGO community that is very active in biodiversity conservation has developed. Government has involved NGOs in Government programmes. Although NGO/GOS working relationships are sometimes contentious—in part because there is a strong sense of ownership-- they are also generally more effective than those in many other countries within the region.

99. The country has taken a number of key steps for environmental management that resonate positively for biodiversity conservation. These include:

- Application of stringent water quality standards regulating the discharge of sewage and sediments from hotels;
- Taking strides to improve solid waste and effluent management;
- Banning of destructive fishing practices including spear guns;
- 47% of the country is ostensibly under conservation status within a Protected Area Network;
- Banning shark finning by foreign fishing vessels (the shark fishery is a highly destructive fishery targeting shark fins for export – the rest of the shark is usually discarded at sea).

100. The Government’s current agreement to replace the existing Land Use planning system with a participatory, District based planning system that integrates biodiversity conservation objectives, and their agreement to restructure Government agencies to better control the entry of IAS into the country, are further evidence of the strong country commitments. Total Government co-financing for the project will be US\$ 3,625,400.

2.7. Linkages to UNDP Country Programme

101. The project will contribute to meeting the objectives as set out in the UNDP Country Programme 2003-2006 for Seychelles (CPD 2003-2006), and will be implemented within that framework. The following components of the Programme are particularly relevant:

- Proposed Programme (III) on ‘Bio-diversity conservation, including community participation’
 1. *Improve the institutional capacity for the conservation and management of terrestrial ecosystems of the granitic island.*

The project is consistent with the agreed terms of “...focus on key forest ecosystems and identified priority threats...management of the biodiversity resources. It is expected that biodiversity conservation will be improved through better management of natural habitat...”

- Programme on ‘Climate change and energy efficiency’
 2. *Enhancement of regional and international cooperation in land use and coastal management.*
- The project will contribute to Service line 3.5 - Conservation and sustainable use of biodiversity, under Goal 3 – Managing energy and environment for sustainable development, of the Multi-Year Funding Framework 2004-2007 (MYFF 2004-2007). It will contribute to the resource mobilization efforts of the country office under the current (2003-2006) and the next country programme starting in 2007. It will specifically address the following intended outcomes of the 2003-2006 Country Programme (Table 15):

Table 15. Elements of the UNDP Country Programme 2003-06.

Strategic areas of support	Intended outcome	Indicators of outcome or purpose
Institutional framework for sustainable environmental management and energy development. Programme Area A1 and D2.	Improved capacity of local authorities, community based groups and private sector in environmental management and sustainable energy development	Capacity building of environmental NGO's in environmental management with an institutional framework established and memorandum of agreement signed with the Government and environmental NGO's.

102. Furthermore, the project is in line with the major development challenges identified in the current Common Country Assessment (CCA), which is being finalized for the Seychelles with the support of UNDP and other UN agencies. The CCA identified sound environmental management as one of several key development challenges to be confronted in spearheading sustainable development. Moreover, the project will further strengthen the capacities of stakeholder to enter into productive partnerships. This work will be complemented by an EU-funded and UNDP-implemented decentralized cooperative governance programme starting in 2006 for capacity building of state and non-state actors in project management.

103. The project is also in line with other international activities and regional programmes. It is in line with the *Millennium Development Goals* (MDGs) adopted by the Seychelles, especially MDG-7 on "Environmental Sustainability". These MDG commitments are further elaborated under the SIDS Plan of Action (Barbados and Mauritius Strategy). Seychelles is part of the Atlantic and Indian Ocean, Mediterranean, and South China Seas (AIMS) grouping within SIDS, where it has assumed a leadership role.

2.8. Linkages with GEF Financed Projects

104. The project is highly complementary with a number of national and regional GEF projects. The Project development team has worked in close collaboration with other project teams to avoid any duplication and overlap between the initiatives, and to optimise synergies. The links are elaborated below.

Table 16: On-going/ planned GEF projects in Seychelles

Project Name	Focal Area	IA	Description and Linkages
Improving Management of NGO & Privately Owned Nature Reserves & High Biodiversity Islands	Biodiversity	IBRD	The project seeks to improve management of two biodiversity-rich islands owned by civil society organizations (Cousin and Cousine). The activities involve research and monitoring of species and habitats, including eradication and restoration programmes; establishing a conservation resource center; and public education and advocacy programmes. The project is implemented on 2 privately owned islands for a period of 3 years, will be completed by 2007, and is executed by a local NGO (Nature Seychelles). The BD Mainstreaming Project is broader in scope (dealing with production interests), and does not directly target ecological restoration work on small islands. The two projects are thus synergistic and the BD Mainstreaming project will liaise with this project during the development and inception stage, and will take into account the lessons learned, especially with regard to community participation and incentives.
MSP on "Capacity Development and Mainstreaming of Sustainable Land	Land Degradation	UNDP	The Seychelles is developing a small medium sized project (<US\$ 300,000) to build capacity to attenuate land degradation. The initiative is being designed to take full account of the scope of and strategies employed by the BD Mainstreaming project. In particular

Project Name	Focal Area	IA	Description and Linkages
Management in Seychelles (SLM)''			the SLM project will focus on sectors that are not addressed under this project, namely forestry, agriculture and urban and peri-urban settlement. The BD Mainstreaming project focuses mainly on the coastal zone and biodiversity specific planning and management needs, while the SLM project will address "brown issues" (i.e. problems such as soil erosion, land slippage and chemical degradation of soil). The BD Mainstreaming project will liaise fully with this project, especially where it concerns agricultural land use initiatives and forest degradation.
Capacity Development Follow on to National Capacity Self Assessment (NCSA)	Cross Cutting Capacity Building	UNDP	The Seychelles was one of the first SIDS and African countries to complete its NCSA. The country is requesting funds for a follow on project to strengthen its capacities to plan and oversee implementation of actions to address the provisions of three global environmental conventions. These include the Conventions on Biodiversity, Climate Change and Desertification (land degradation). The main focus will be on strengthening the role of the EMPS, to serve as a coordinating body for cross-sectoral environmental management. This will complement planned capacity building activities under the BD mainstreaming Project, which will not address the capacity needs of the EMPS. The NCSA follow on project will also develop capacities for state of the environment reporting thus complementing the knowledge management activities of this project.
Reduction of Environmental Impact from Coastal Tourism through Introduction of Policy Changes and Strengthening Public-Private Partnerships	International Waters (Regional)	UNEP/ UNIDO	The planned project aims at reducing contaminant discharge into coastal waters from tourism developments in coastal areas in 10 African countries. The Seychelles will participate in regional activities aimed at distilling and disseminating knowledge and providing training. The tourism related activities of the BD Mainstreaming project will be linked to the initiative, allowing lessons and good practices to be shared widely at the regional scale. The regional project, will not provide funding for specific demonstration work in the country, so as to avoid overlap,
Agulhas and Somali Large Marine Ecosystem Programme (ASCLME Programme) West Indian Ocean Marine Electronic Highway Project	International Waters (Regional)	IBRD/ UNDP/ UNEP IBRD	Funding for a suite of regional projects has been provided to build the capacity of the countries in the Western Indian Ocean to manage the Large Marine Ecosystems of the Area. Projects under the ASCLME Programme will seek to fill gaps in information in the following areas: land based sources of pollution, fisheries, productivity and oceanography. The focus is on mitigating threats to trans-boundary resources, such as over fishing of pelagic fisheries and release of contaminants into coastal waters. The Programme will develop a trans-boundary diagnostics analysis (TDA) and Strategic Action Programme (SAP) defining priority measures that may be adopted by the region to address shared trans-boundary concerns. The Programme will thus contribute to efforts to manage pelagic fisheries and other issues, outside of the scope of this project. However the Biodiversity project will share data and with the ASCLME Programme for the purposes of preparing the TDA. The Seychelles lies in a major oil shipping lane. It is vulnerable to oil spillages caused by accidents at sea, including ship collisions. The WIO Marine Electronic Highway project will build regional

Project Name	Focal Area	IA	Description and Linkages
			capacity to manage ship navigation to reduce this risk. The initiative is wholly complementary to the Biodiversity project, reducing the risk of oil spillages in ecologically vulnerable areas.

2.9. Sustainability

105. Sustainability has been a major consideration throughout the development of this project. The different facets of sustainability are analysed thematically for each of the major outcomes of this project.

106. **Land/water/coastal use planning.** The institutional base for the new LWC use planning system exists already. What has been lacking has been the commitment to give land use plans the statutory power needed to make them effective planning tools for sustainable development. In particular, the development of a sustainable development plan for the Outer Islands presents an exceptional opportunity to maximise the chances for ensuring the biodiversity conservation objectives are addressed when spearheading development initiatives. The Outer Islands are unique in their near lack of physical presence of either private sector or Government entities. The Outer Islands present a rare opportunity to integrate biodiversity conservation into private sector investments from the very start of development planning instead of trying to make difficult post facto adjustments to investments.

107. **Participatory management of artisanal fisheries.** Seychelles has reached a critical point at which the catch per unit effort (CPUE) of the open access artisanal fisheries is falling. Unchecked, this would lead to decreases in the total amount and the value of the catch. The total catch, the CPUE and the value of the artisanal fisheries are dependent on replacing open access with management systems that set geographical and numerical limits on fishers. The focus of the artisanal fisheries outcome will be on the development of participatory, rights-based artisanal fisheries management systems. Close attention will be paid to ensuring social equity, economic viability and ecological sustainability. Much of the enforcement of regulations under the new management systems will be undertaken by the fishers themselves – applying the regulations that have been developed jointly through a consensus building process. One of the tools for sustainable management of the artisanal fisheries will be the use of no-take-zones (NTZ). Experience around the world has shown that NTZ management of coral reef and near-shore fisheries is a win-win strategy. Biodiversity conservation is obviously much more effective with the NTZs. But the NTZ set-asides result in an overall increase in the absolute amount of the catch as well as an increase in the per kilogram value of the catch – because the average size of the fish caught is greater. There is therefore a clear economic incentive for fisher-based resource management.

108. The greatest dangers to sustainability arise from conflicts that may develop through the awarding of exclusive fishing rights to specific fisher “communities”. There is however, already a certain level resource partitioning for most artisanal fisheries that this project will build upon. Great attention to equity and good governance will be made in the definition and allocation of fishing rights using a highly participatory approach. Continued bleaching events and ecological changes resulting from climatic change and ocean acidification are to be expected, although their precise nature is not fully predictable. Although there can be no guarantee of ecological sustainability in this context, local control over local resources, accompanied by the development of adaptive management systems, should optimise the prospects for assuring sustainability.

109. **Joint management of ecologically sensitive areas** by tourism operators provides one of the most obvious opportunities for leveraging private sector investments for biodiversity conservation. Joint management should remain viable as long as tourism operators can realise a profit from their investment in the protection and management of these areas. The biggest risks to the sustainability of joint management are the same macro-economic risks to the tourism sector in general and to the world economy that tourism depends upon. On another level, the sustainability of joint management is also dependent upon Government

policies that promote investments by production sectors (incentives), and identifying financing mechanisms. The EMPS provides a firm basis for this and policy trends for the foreseeable future are positive in this respect. There are already good examples of tourism industry behaviour in Seychelles and industry-led examples of mainstreaming in other countries. Tourism operators in Seychelles increasingly recognise that their business model is economically dependent on the ecological, social and cultural environments within which they operate. The sustainability label will trade on this reality, so as to encourage its wide uptake.

110. An economic assessment has been performed during project preparation to assess the profitability of enterprises in the tourism and fisheries sectors. A modelling exercise was undertaken for different enterprise types, using data from the Seychelles Investment Bureau, the SFA, individual operators and from research and analysis. The enterprises considered included hotels and guesthouses, yacht charter, diver centres, and artisanal fishing. The economic yardsticks used included the Internal Rate of Return, Average Net Profit: Capital Ratio and Average Capital: Turnover Ratio. The analysis showed that net profitability in these sectors should be sufficient to accommodate the additional marginal costs associated with adapting production practices¹⁸. However, more detailed second order analyses will need to be undertaken at the enterprise level to define the exact costs and benefits associated with different conservation interventions. Provision is made for this in project design. Activities will be designed to ensure cost effectiveness, so as to encourage uptake by businesses. This is a key pivot of the strategy to ensure the financial sustainability of interventions initiated by businesses.

2.10. Replicability

111. The Project incorporates good biodiversity management practices that have been demonstrated elsewhere. Relevant good practices have been integrated within project design. The Seychelles is already a leader in the biodiversity conservation field, and has developed numerous good practices, especially with respect to the restoration of small island ecosystems. The merger of the “Seychelles” experience with good practices distilled from other SIDS is expected to yield a number of powerful new models with promising potential for replication not only within the Indian Ocean region but also globally. The project has been designed based on a careful analysis of barriers to biodiversity conservation in production sectors. Some of the barriers to be addressed are cross-cutting and some are sector specific. Accordingly, the project has been designed to work at two levels. A first set of interventions will create the enabling conditions for more effective mainstreaming of biodiversity conservation. The second set will be composed of sector specific interventions, which will pilot improved production systems.

112. Replication will be promoted at two levels. At a national level, the project will seek to roll out promising management approaches and good practices tested and adapted at discrete sites in other locations. The Project will work at the national level through industry associations, ENGOs and other actors to promulgate the scaling-up of good practices across each sector. At the global level, information will be made available through knowledge management systems, particularly through Web links such as the one set up during project development. Table 16 identifies the needs and opportunities for replication, presents the strategies for replication and gives information on the scope, timing and costs of replication activities.

Table 17: Replication Strategies

Outcome	Needs/Opportunities for Replication	Project Strategy for Replication	Scope and Timing	Cost (US\$)
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¹⁸ However the results are highly sensitive to the assumptions, for instance the number of beds and occupancy rate of hotels. This factor will be considered in subsequent economic assessments, in order to manage investment risks.

Outcome	Needs/Opportunities for Replication	Project Strategy for Replication	Scope and Timing	Cost (US\$)
Outcome 1: Systemic and institutional capacities for the mainstreaming of biodiversity management within and across sectors are strengthened.	Systemic and institutional capacities that may be replicated in the region, or beyond, are the following: a) new land use planning legislation; b) the synthesis of biodiversity conservation priorities and the gap analysis of the status of these priority sites; c) guidelines for integrating geographic biodiversity conservation priorities are formally adopted; d) appropriate land use zoning categories for every priority biodiversity conservation site in country identified.	Key strategy for replication is the web site that is set up. The UNDP/ Knowledge Management System Network will play a key role in sharing information within and across regions. Regional fora that will be used for sharing information on Systemic and institutional capacities are the following: <ul style="list-style-type: none"> • COI / IOC • WIOMSA • ICRAN • The AIMS group with the SIDS 	Regional/life of project Regional/life of project Regional/ongoing as regional fora occur	10,000
	The agreed standards for biodiversity inventory, assessment, monitoring, data storage and access will need to be adopted by all users.	Development of the standards will be an open, transparent, participatory process, leading to adoption by consensus. Use of standards will be obligatory for all project funded interventions.	MENR & other Government agencies, ENGOs Ongoing in Yrs 2-6	15,000
	Integration of biodiversity priorities/ecologically sensitive areas into LWC use planning process will be done with Project assistance at the national and Outer Islands levels, but integration into district-level land use planning needs to be replicated for every District preparing district land use plans.	Capacity for integration into all LUP will be built in MLUH and MENR and training will be conducted for all districts. Web site will be used for regional replication.	District planning bodies Annual Yrs 2-6 Regional/Yrs 3 to 6	24,000
Outcome 2: Methods and means for integrating biodiversity conservation and artisanal fisheries management are in place.	Output 3.2 is specifically for the replication of the participatory, rights-based model management systems for artisanal fisheries developed at pilot sites under Output 3.1. These pilot systems need to be replicated throughout all the suitable artisanal fishing grounds in Seychelles.	The strategy is to build capacity within SFA, FBOA /fishers' associations on the pilot sites and ENGOs for awareness raising and replication/ adaptation of the participatory pilot models throughout the fishing waters of Seychelles that are suitable for each type of artisanal fisheries management. FBOA will be used as a vehicle for awareness raising.	National Ongoing Yrs 2-6	200,000
	The pilot artisanal management systems should also be replicated and adapted more broadly throughout the region and beyond.	The main tool will be the Project Web site. The following regional fora will be used: <ul style="list-style-type: none"> • IOC • WIOMSA • ICRAN • NEPAD • The AIMS group with the SIDS 	Regional Ongoing in Yrs 2-6	14,000

Outcome	Needs/Opportunities for Replication	Project Strategy for Replication	Scope and Timing	Cost (US\$)
Outcome 3: The tourism industry is addressing biodiversity conservation needs as part of good practice in business operations.	The joint management systems for biodiversity conservation of ecologically sensitive areas should be replicated and adapted to all suitable terrestrial and marine sites in Seychelles wherever conditions are suitable.	The criteria and conditions for joint management will be developed and demonstration sites will be established. A major awareness raising effort will be developed through MENR, DOT, STB, SHTA and ENGOs. Adaptive management reviews will be done annually with all joint-management partnerships, leading to dissemination of lessons learned and best practices. Exchange visits will be organized for interested parties.	National Ongoing Yrs 2-6	24,000
	A national sustainability label is developed and is widely adopted by tourism operators	The labelling system will be set up in Yrs 1 & 2 and will be tested in Yr 2. Following modifications, a national marketing program will be launched in Yr 3 seeking widespread interest and adoption. Information on the labelling systems will be disseminated in the region through the Web site (clearinghouse) and other fora (seminars, working sessions, conferences, etc.) and through the activities of the World Tourism Organisation.	National Yrs 3 to 6- Regional Yrs 2 to 6	24,000

2.11. Lessons Learned

113. A number of key lessons were distilled from an internal review of previous biodiversity management projects in Seychelles and following a worldwide review of lessons for mainstreaming. The latter was undertaken for the GEF Scientific and Technical Panel (STAP) in preparation for a mainstreaming workshop in September 2004. Lessons from the BPSB Biodiversity Planning Support Program in regard to tourism and fisheries have also been accommodated.

Table 18: Lessons Learned

Lessons	Notes on Seychelles	Design Feature	Outcome / Output
Cross Cutting			
Need to establish that the private benefits of interventions outweigh the costs over the long term. Mechanisms to compensate for the public good attributes of interventions should be established through incentive mechanisms.	Relatively little work done in Seychelles on economics of land use. Project addresses two sectors: tourism and fisheries, where businesses are intrinsically dependent on ecosystems and have motivations to address threats.	Analyses undertaken during project preparation established win-win opportunities within the fisheries and tourism sectors encouraging the involvement of the private sector. Economic analyses to be undertaken during implementation will weigh the cost versus the benefits of industry involvement in activities design and rollout. In tourism, this includes certification systems, BD offset requirements will be incorporated into LUP and licensing regimen. Fisheries will establish user rights and vest benefits in people that bear the costs of stewardship,	Outcome 1: Outputs 1.1 & 1.4 Outcome 2: Outputs 2.1 & 2.2 Outcome 3: Outputs 3.1 & 3.2

Lessons	Notes on Seychelles	Design Feature	Outcome / Output
		thus overriding the free rider problem.	
Effective mainstreaming requires attention to the enabling environment, in particular to ensure that policies, strategies and plans are in compliance, that there is strong political support and an institutional framework to implement policies.	Strong policy framework for environment. Good institutional capacities within Government and NGOs. Political commitment developed during project preparation for development and passage of new legislation for LWCUP. Focus has been on PAs rather than addressing threats deriving from production sector activities. Expanding the enabling environment to accommodate this need, in particular, ensuring engagement outside the environment sector.	Knowledge management capacities for biodiversity conservation will be strengthened considerably and integrated into land use planning and production sectors. New legislation for LWCUP and participatory LWCUP systems will be developed and LWC plans will be produced and implemented. Annual stakeholder reviews of the Project component will be led by civil society.	All Outputs in Outcome 1
Stakeholders need to come to a common understanding of the project purpose, outcomes and outputs. A consensus should be established from the start and nurtured.	Interests of NGOs and GOS are sometimes in concurrence and sometimes not. Highly participatory process engineered in designing the project.	Inception workshop at project start-up. Annual stakeholder review of what does and does not work, with formulation of corrective measures.	Implementation modalities Outcome 1; Output 1..3
Strong and independent project implementation unit needed to achieve objectives.	Experience with projects in Seychelles has shown that some projects fall short of meeting their full objectives because of conflicts over ownership, and issues surrounding efficiency of implementation.	Strong Project Management Unit in place with capable staff. Remuneration will be attractive and according to qualifications. Inclusive steering committee with detailed TOR in place. Strong technical and management guidance of PMU by qualified national and international experts. Independent annual stakeholder review.	Implementation modalities
Need to have an incentive system with adequate penalties and levels of enforcement to act as a deterrent against malfeasance.	SFA lacks resources for meaningful enforcement of existing top-down regulations on artisanal fisheries. EIA process procedures are well established but enforcement is irregular.	Artisanal fisheries co-management systems will transfer much of the burden for enforcement onto the fishers themselves and will make partners rather than antagonists out of fishers. Participatory LWC planning and civil society oversight will lead to improved governance and enforcement for EIA systems.	Outcome 1; Output 1.2. Outcome 2; Output 2.1 Outcome 3: Output 3.1
Need to find systems for managing conflicts as they arrive.	Conflicts occur fairly frequently but measures for conflict management are	Project places strong emphasis on development of partnerships for management of environmentally sensitive	Outcome 1; Output 1.3. Outcome 2;

Lessons	Notes on Seychelles	Design Feature	Outcome / Output
	poorly developed.	areas and for artisanal fisheries. Annual stakeholder review will provide an official forum for civil society stakeholders to evaluate the program and to recommend changes.	Output 2.1. Outcome 3; Output 3.1
Fisheries			
Fisheries need to involve fishermen in undertaking stock assessment and defining sustainable off takes and management measures	Stock assessments for the sea cucumber co-management plan were performed unilaterally by specialists working for SFA. Results were difficult to accept by fishers as basis of sustainable catch calculations. SFA now involves fishers in stock assessments.	The development of co-management pilot systems for other artisanal fisheries will be highly participatory and adaptive management procedures will be standard. Capacity of fishers to understand and to participate in sampling procedures and other technologies will be built.	Outcome 2; Output 2.1 & 2.2
Need to ensure benefits (in terms of increased recruitment from spatial fisheries set aside areas) are quickly obtained and visible.	Recruitment effects will be different for different species. Lobsters and some other species rebound quite quickly	Increases in catch contiguous to MPAs will be studied jointly with fishers. Study tours to successful co-management sites in the region will be organized. Protection of rabbit fish spawning aggregation areas will yield rapid population response. The first artisanal fishery targeted is the trap fishery. The very wide range of species is sure to include several that display rapid recovery to diminished fishing pressures.	Outcome 2; Output 2.1 & 2.2
Management systems need to integrate adaptive management principles.	SFA has initiated periodic adaptive management joint reviews with fishers as part of their pilot management system for sea cucumbers. All other artisanal fisheries have no management plans and no co-management systems.	Adaptive management will be a basic principle of project interventions in all sectors. Adaptive management reviews will be a basic part of the all fisheries co-management pilot systems. Review will include SFA, fishers, actors in the market chains for the products concerned, ENGOs, concerned tourism operators and other stakeholders.	Outcome 1; Output 1.3 Outcome 2; Output 2.1
Tourism			
Visitors need to be aware of their impacts and environmental externalities imposed by the lodgings.	Relatively little has been done to target visitors with such messages to date.	Awareness raising for tourists/visitors will be an integral part of the marketing of the new tourism sustainability label.	Outcome 3; Output 3.2
Certification systems need to be designed with the full involvement of the industry from the start to optimise uptake.	The tourism industry has been involved in dialogue with DOTT & STB and workshops on this subject. Industry support for labelling was further developed and validated during Project preparation.	SHTA and industry leaders will be fully involved from the beginning in the development of the sustainable tourism label and in the promotion of EMS standards.	Outcome 3; Output 3.2

PART III: Implementation Arrangements

Programme Coordination Unit

114. The “Lessons Learned” from earlier environmental projects in Seychelles have shown that it is crucial to have a strong project coordination mechanism. This is of particular importance when several sizeable UNDP-GEF Projects need to be coordinated at the same time, which will be the case in Seychelles over the period 2007 – 2012, even more so taking into account the existing capacity constraints (e.g. as reflected in the national Capacity Self Assessment, NCSA). It is with this in mind, as well as to ensure an independent and effective facilitation between the different stakeholders (government, private sector and civil society), that a central Programme Coordination Unit (PCU) is proposed. This UNDP supported PCU will oversee, support and coordinate all activities of the different UNDP-GEF projects. The PCU would be lead by an overall “Programme Coordinator”, see ANNEX VI for Terms of Reference. The Programme Coordinator will be supported by an efficient administrative and accounts set-up, to ensure transparency and accountability, especially in its procurement. The procurement will entail several service contracts with local entities (e.g. private-NGO partnerships), following a transparent, open and independent tender process, regulated by UNDP procurement procedures. An important role for the PCU is therefore the management of these tenders, in particular preparation of tender documents and compilation and recommendations of bids for evaluation by the Project Steering Committee. This will be assisted by the UNDP Technical Management Unit (TMU) which is already presently operating in Seychelles. A National Project Director needs to be appointed by Government to ensure the conduit and liaison between the PCU and government, as well as the timely and adequate disbursement of funds (see ANNEX VI for TOR). An important aspect of the PCU is to closely follow and coordinate with other (GEF and non-GEF) Environmental Projects, in order to make best use of the provided project resources, and make sure the overall goal is achieved in the most effective manner.

Project Management

115. Daily project management is provided through national Project Managers, at thematic level, as detailed in the Figure 1. The Thematic Areas are groupings of projects according to a common “theme”, viz. Biodiversity, Land management and Climate Change respectively. These Thematic Areas reflect the GEF Focal Areas, as well as tie in, to a certain extent, with the EMPS Thematic Areas. The Biodiversity thematic area comprises of the Biodiversity Mainstreaming and Biosecurity Full Sized Projects (which were co-developed during the PDF-B); the Land Management Thematic Area comprises of the Sustainable Land Management and Capacity Development Projects; and the Climate Change thematic area comprises of the 2nd National Communication (Enabling Activity) and Water Adaptation PDF-B + subsequent full sized project. The UNDP-GEF Capacity Development Project is cross-cutting and will seek to strengthen capacity for national and international environmental management.

Technical Assistance

116. Short-term national as well as international technical assistance (TA) will be provided by the Project, in order to overcome barriers and achieve the project outputs/outcomes. The TA will be directly contracted by the PCU, through a transparent procurement process (i.e. development of Terms of References, advertizing and recruitment) following UNDP regulations and will directly assist the implementing entities and report to the PCU. This is similar to the contracting out of services, but features under a separate budget heading.

Project Implementation

117. Implementation of the projects will fall largely to national entities within the different sectors (fisheries, tourism) and thematic areas. Because the main emphasis lies on “mainstreaming” and “capacity development”, broad participation will be sought within the relevant production sectors and civil society. Already some platforms and structures for discussion, exchange & coordination exist; these will be used in

further sectoral and project coordination (e.g. IAS committee, national parks committee, climate change committee, legal review committee, tourism advisory committee, etc.). Changes in the set-up, as well as support to these committees may be envisaged in order to make them more effective. It is envisaged that apart from activities that will be allocated to the most relevant and competent entities in the sector/area, several project activities will be contracted out locally, in most cases likely to private sector / NGO partnerships (e.g. fishers – NGOs, tourist operators – NGOs, etc.). These contracts will follow a transparent, open and independent tender process, coordinated by the PCU and following UNDP-GEF procurement procedures.

Programme / Project Steering Committee(s)

118. For effective direction and steering of the project, a committed and balanced Programme Steering Committees (PSC) that represents stakeholders' interests is required. Small Steering Committees per thematic area for all UNDP-GEF Projects will be set-up (viz. Biodiversity; Land Management; and Climate Change), comprised of the most pertinent stakeholders / implementers of the projects / programmes, preferably some 6 – 12 members, proposed by Government and UNDP, and nominated by the EMPS Steering Committee (with endorsement of Government and UNDP). There will also be few observers on the Committee, i.e. regular members that attend the meetings and deliberations, but that have no voting power. Other members may be co-opted to the PSC to discuss emerging technical or administrative issues, when the need arises. When a conflict of interest may potentially arise, e.g. in the evaluation of tenders, the parties involved in bidding need to opt out of the tender decision process. The PSCs may meet periodically (e.g. quarterly) to consider progress, budgets & workplans, set policies and targets for the different projects. They will also decide on major TORs (e.g. for Technical Assistance). The Steering Committee will nominate 2 – 3 members to sit on a tender evaluation committee, together with the UNDP CO and Programme Coordinator, to evaluate and decide on bids for contracts (prepared by PCU). Most of the materials for Steering Committee meetings are prepared by the PCU, e.g. budgets, workplans, progress reports and evaluation of bids. The PSCs will periodically inform the full EMPS Steering Committee. The Steering Committee members will be remunerated (from GOS budget) and the PSC will also have a budget to contract out services if needed, e.g. Monitoring & Evaluation. Training and support will be given to the stakeholders on the Project Steering Committee, if needed. See further ANNEX VI for Terms of Reference and composition of the Steering Committee(s).

Reporting

119. The implementing partners of the specific activities (organizations, consultants, contracted entities) will report to the respective Project Manager. The Project Managers will prepare the necessary progress and other (technical, etc.) reports. The overall Programme Coordinator edits, approves and consolidates the Project Reports, and submits to the PSC and UNDP following standard UNDP reporting procedures.

Legal Context

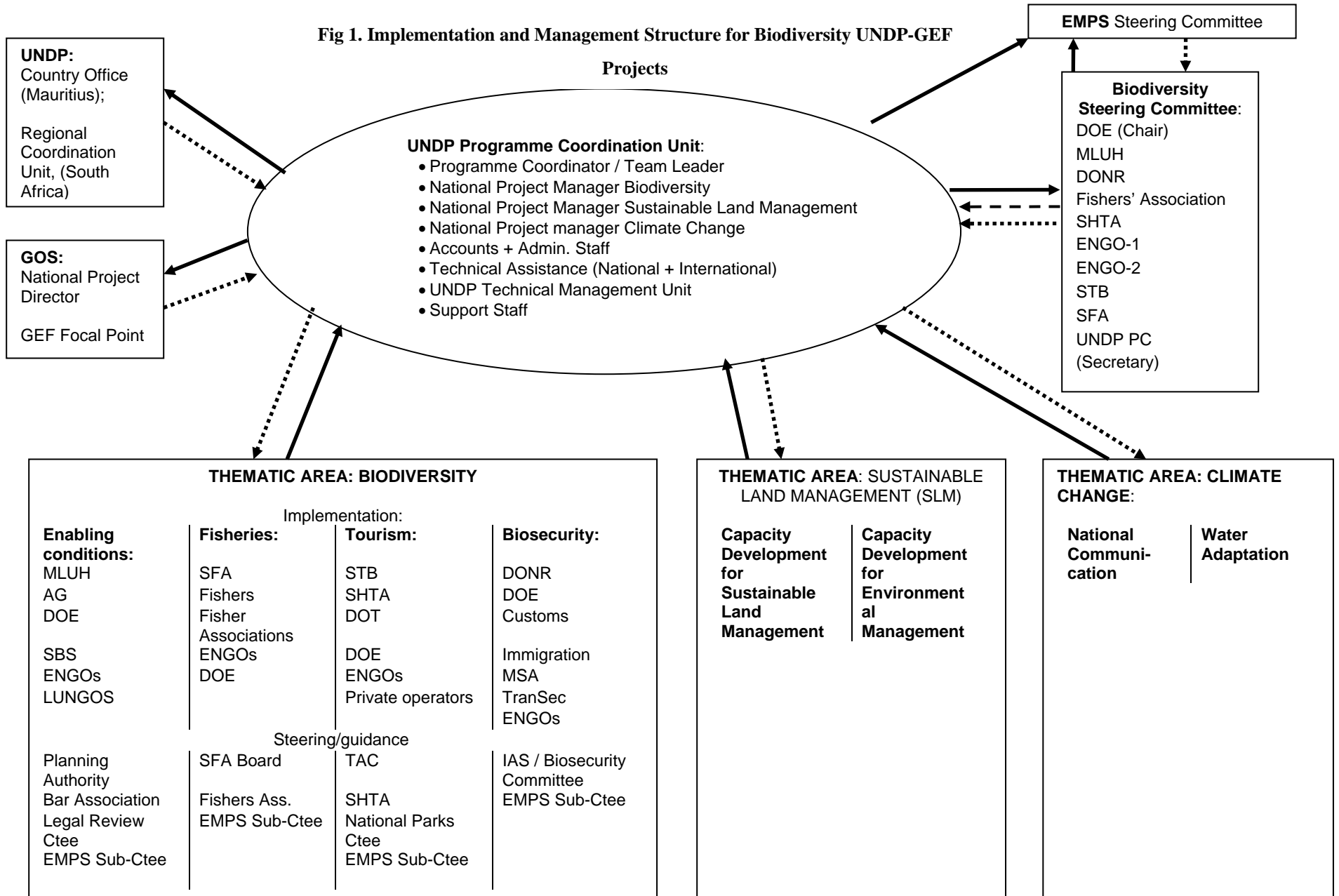
120. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of Seychelles and the United Nations Development Programme, signed by the parties on 17 November 1977. The host country-implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

121. UNDP acts in this Project as Implementing Agency of the Global Environment Facility (GEF), and all rights and privileges pertaining to UNDP as per the terms of the SBAA shall be extended mutatis mutandis to GEF.

122. The UNDP Resident Representative is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

- i. Revision of, or addition to, any of the annexes to the Project Document;
- ii. Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
- iii. Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
- iv. Inclusion of additional annexes and attachments only as set out here in this Project Document

Fig 1. Implementation and Management Structure for Biodiversity UNDP-GEF



—————▶ : Report

.....▶ : Steering / guidance

- - - -▶ : Approval / Authorization

PART IV: Monitoring and Evaluation Plan

134 Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures. The Logical Framework Matrix in Section II provides impact indicators for project implementation along with their corresponding means of verification. The Monitoring and Evaluation Plan is appended to Annex III. This provides: (i) a detailed explanation of the monitoring and reporting system for the project; (ii) a presentation of the evaluation system; and (iii) a work plan and the budget for M&E.

135 The Programme Coordination Unit (PCU) will be responsible for day to day monitoring activities. The Programme Coordinator will be responsible for the preparation of reports for the Steering Committee and UNDP on a regular basis, including the following: (i) Inception Report; (ii) Annual Project Report; (iii) Project Implementation Review; (iv) Quarterly Progress Reports; and (v) Project Terminal Report. The objectives of these reports are detailed in Annex III. The Quarterly progress reports will provide a basis for managing project disbursements. These reports will include a brief summary of the status of activities, explaining variances from the work plan, and presenting work-plans for each successive quarter for review and endorsement. The Annual Project Report will be undertaken annually, and will entail a more detailed assessment of progress in implementation, using the set indicators. It will further evaluate the causes of successes and failures, and present a clear action plan for addressing problem areas for immediate implementation.

136 *Annual Monitoring* will occur through the *Tripartite Project Review (TPR)*. The TPR will be composed of representatives of GOS, UNDP and the Project. This will serve as the highest policy-level meeting of the parties directly involved in the implementation of the project. The project will be subject to Tripartite Reviews at least once every year. The first such meeting will be held within the first twelve months of implementation. The project proponent will prepare an Annual Project Report (APR) and submit it to UNDP-CO and the UNDP-GEF regional office at least two weeks prior to the TPR for review and comments.

137 The project will be subjected to at least two independent external evaluations:

- (i) Mid-term Evaluation - will be undertaken at the end of the second year of implementation. The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed;
- (ii) Final Evaluation - will take place three months prior to the terminal tripartite review meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals.

138 The Government will provide the designated UNDP Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.

PART V: Incremental Cost Analysis

National Development Objectives

139 The Government of Seychelles is presently drafting a new National Development Plan (NDP 2005 – 2015), entitled ‘restoring growth and stability’. The overriding development objective is to improve economic performance, and foster economic growth rates well above the trend level in the recent past. This is vital to sustain the remarkable socio-economic progress that the country has achieved in the last 25 years. Factors that might impact negatively on growth prospects include risks related to exogenous volatility (natural disasters), uncertainties in the oil markets, erosion of market access preference to the EU market for fisheries products, and slowdown in global recovery. The intrinsic relationships that exist between the natural environment and the socio-economy are particularly evident in Seychelles. The limited natural resource endowment greatly restricts the economic structure of the country, which is marked by the essentially heavy reliance of the country on the tourism and fishery industries. The continued growth of these two sectors, and of the economy by extension, depends on the sustainable use and conservation of the country’s natural resources, and on the effective protection and management of its natural environment.

Global Environmental Objectives

140 The Seychelles is a repository of globally significant marine and terrestrial diversity. The importance of the terrestrial component of biodiversity is amplified by the fact the rate of endemism is high. Some taxa are threatened or endangered, in particular the higher plants, birds, turtles, amphibians and invertebrates. The Goal of the project is to secure the functional integrity of terrestrial and coastal ecosystems of the Seychelles. Much of the sensitive biodiversity in the Seychelles is already under some form of protection or other, but the main threats to biodiversity emanate from the production sectors. The Project aims to integrate biodiversity conservation into key production sectors of the economy. The project is mainly designed to counter the threats to biodiversity from increased physical development of the main granitic islands, overfishing and environmental impacts associated with tourism. It attempts to address this by safeguarding habitats and sensitive ecosystems against fragmentation from physical development, and from pressures linked to tourism and fisheries activities.

Baseline Scenario

141 A total investment of some US\$23.96 million equivalent will be provided by different national stakeholders over the next five years to address the principal threats facing Seychelles biodiversity. Under the baseline scenario, defined as business as usual, a number of significant interventions will be financed to improve biodiversity management by the Government, NGO community and private sector. While insufficient to ensure that the Seychelles’ globally significant biodiversity is secured, these activities provide an important foundation in which this project is nested. A sketch of the baseline follows below:

142 Enabling environment. The total baseline investment under this component is estimated at US\$ 10.3 million. This includes spending by MENR of some US\$0.67 million in discharging EIA oversight obligations. Several Government ministries (mainly MLUH) and the office of the Attorney General will allocate some US\$3.32 million to revise existing legislation and put in place new legislation and policies for land use planning (LUP), to run the Town and Country Planning Authority, and develop District Development Plans in several districts, It will also cover the costs of running the GIS unit. Some investment will be made by the country’s education institutions (MEY and Ministry of Manpower and Administration) to continue capacity building programmes aimed at middle and senior-level managers. A total of US\$ 4.73million would be spent on the control on invasive alien species across the landscape, including eradication activities on small islands and port controls (inspection and quarantine services).

143 Artisanal Fisheries: The total baseline investment under this component is estimated at S\$7.16

million. This includes investments of some US\$5.38 million by SFA, Indian Ocean Tuna Commission (IOTC) and MENR to continue to develop and implement fisheries management systems, regulations, enforcement and M&E systems, to develop a National Plan of Action for Seychelles' shark fishery, to map the shallow marine environments of a number of the southern islands of Seychelles and to develop a satellite-based fishing vessel monitoring system. NGOs and fishers' associations will spend some US\$0.20 million to identify critical reef fish spawning aggregation and to continue the monitoring of coral reefs.

144 Tourism: The total baseline investment under this component is estimated at US\$6.46 million. This includes investments through the private sector and NGOs to continue development of partnerships for conservation actions including management of eco-tourism (e.g. Banyan Tree resort + MCSS; Cousine Island + Cousin + Nature Seychelles; North Island Resort + ICS). The Seychelles Island Foundation (quasi NGO) will continue to manage Aldabra and Vallée de Mai World Heritage Sites. Estimated funds of some US\$1.19million will be spent by STB and DOT to promote tourism development strategies that both conserve the environment and that aid in marketing Seychelles as a quality tourism destination. The Department of Tourism will work with the University of Zurich to carry studies on visitor carrying capacity, and assess the viability of Environmental Management Systems for the tourism industry¹⁹.

Alternative Strategy

145 The Seychelles Government has limited financial and human resources and the knowledge base to move beyond simple nature conservation paradigms and to ensure that biodiversity is valued, used sustainably and users and other key national stakeholders investments are investing themselves in management. The total cost of the baseline is US\$23.96 million. This is not sufficient to ensure that biodiversity conservation objectives are addressed in production landscapes and integrated into sector production practices. As these practices drive many of the threats to biodiversity, it stands that the root causes of many threats will be left unattended. This in turn will serve to compromise the efficacy of baseline programmes. The GEF Alternative aims at addressing the unmet need for conservation paradigms that better integrate conservation with production objectives. The aim is to improve implementation capacity, build long term partnerships to foster capital investments in ecosystem protection, and restoration, remove perverse subsidies and other barriers, and create new development practices. The total cost of the Alternative is US\$35.188 million, exclusive of preparatory assistance, with an incremental cost of US\$11.227 million (32% of the Alternative) for which GEF assistance of US\$3.6 million is requested (32% of the total increment). The GEF has invested US\$ 0.3 million in preparatory assistance during the PDF-B.

146 Systemic and institutional capacities for the mainstreaming of biodiversity within and across sectors are strengthened: The incremental cost for this component is US\$3.800 million with requested GEF funding amounting to US\$1.566 million to ensure the mainstreaming of biodiversity management concerns into physical and sector planning processes, and install a high quality knowledge management system that indicates biodiversity concerns based on high standard participatory assessments. GOS will commit US\$1.209 million for activities on land use planning, biodiversity assessments and information management, relevant policy and legal reviews, and project management & administration (including contributions from STB and SFA). Local stakeholders, including NGOs and private sector will provide some US\$1.025 million to undertake biodiversity assessments, and strengthen information management systems²⁰.

¹⁹ The Government would also make associated investments in improving the management of solid wastes and effluents, with funding from the EU, ADB and others. The tourism related investment amounts to US\$ 14.2 million, and includes the improvement of solid waste management infrastructure on Mahé and development of a sewage treatment facility on Praslin. The costs will be recovered through a user fee to be levied on hotels. Excluded from the baseline analysis are the investments likely to be made by new establishments in environmentally friendly technology, energy saving devices (solar powered equipment), and sewerage treatment plants.

²⁰ The COI implemented “*Regional Programme for the Sustainable Management of the Coastal Zones of the countries of the Indian Ocean coastal zone*” financed by the EU for €18 million, is expected to assist the increment under this outcome with activities on biodiversity assessments, knowledge management, developing coastal zone policies and

147 Methods and means for integrating biodiversity conservation and artisanal fishery management are in place: Total incremental costs for this component are US\$2.019 million with requested GEF funding of US\$1.002 million. The SFA will commit US\$1.000 million for demonstration activities, including for artisanal fishery stock assessments, monitoring and enforcement, and development of artisanal fisheries management plans²¹. Local NGOs will provide US\$17,500 for facilitation of co-management regimes. GEF will provide funding to demonstrate the utility of co-management systems with artisanal fishers, including funding for community mobilization and institution building, technical assistance for monitoring and limited equipment (i.e. buoys, etc.).

148 The tourism industry is addressing biodiversity conservation as part of good practice in business operations: The total incremental cost for this component is US\$5.408 million with requested GEF funding of US\$1.033 million. GOS, through STB will contribute US\$0.80 million for tourism promotion activities, the development of interpretation materials, development of sustainability label and Environmental Management Systems (EMS). Local stakeholders, including NGOs and private sector will provide some US\$3.6 million, in direct investments for the management of ecologically sensitive areas²². GEF funding will support activities to promote appropriate sustainable labels and Environmental Management Systems for tourism operators. It will also support putting in place viable incentives and sustainable financing for mainstreaming biodiversity concerns in the tourism sector, and demonstrate and replicate joint conservation management systems with tourism operators.

Incremental Cost and Benefits

149 The incremental cost matrix provides a summary of the domestic and global benefits arising from the project. The baseline cost, incurred irrespective of the GEF support and which is undertaken primarily to produce domestic benefits, amounts to US\$23.96 million. The cost of the additional activities required to achieve the project outcomes is estimated at US\$11.23 million of which the GEF would finance US\$3.6 million and co-financiers (local and international) US\$7.63 million. PDF-B project preparation costs amounted to US\$0.33 million with US\$0.3 million from GEF. The total cost of the Alternative Strategy, comprising of the total project costs and the baseline, excluding preparatory assistance is US\$35.29 million.

Table 19: Incremental Cost Matrix

Outcome	Cost	Cost (US\$)		National Benefits	Global Benefits
Outcome 1: Systemic and institutional capacities for mainstreaming biodiversity management within and across sectors	Baseline	National Assembly	218,000	- Improved environmental governance capacities	- Improved policy and legal foundations for biodiversity conservation creates an enabling environment for integrating BD friendly practices into production
		GOS	9,603,300		
		Env NGOs	275,500		
		Private Island Owners	242,500		
		Total	10,339,300		
	Increment	GEF	1,565,500		
		Others	2,234,450		

plans, and related strengthening of capacities. The exact activities and amounts, however, are not yet established and are therefore not formally included as increment, but rather as associated financing (estimated US\$700,000); see also Footnotes 21, 22.

²¹ The COI/EU “Regional Programme for the Sustainable Management of the Coastal Zones of the countries of the Indian Ocean coastal zone” will fund fishery pilot programmes for local coastal fisher communities. An estimated amount of US\$400,000 is included under the Associate Financing (estimated US\$400,000); see also Footnotes 20, 22.

²² The COI/EU “Regional Programme for the Sustainable Management of the Coastal Zones of the countries of the Indian Ocean coastal zone” will fund activities to mitigate threats posed by tourism to biodiversity in coastal zones. This is included in the Associate Financing (estimated US\$400,000); see also Footnotes 20, 21.

Outcome	Cost	Cost (US\$)		National Benefits	Global Benefits
are strengthened		GOS	1,209,000		
		Env NGOs	1,025,450		
		Total	3,799,950		
	Alternative	Total	14,139,250		
Outcome 2: Methods and means for integrating biodiversity conservation and artisanal fisheries management are in place	Baseline	National Assembly	65,400	- Sustained productivity for the national fishing sector.	- Overfishing of certain species (sea cucumber, sharks, etc.) mitigated
		GOS	6,895,600		
		Env NGOs	31,200		
		Fishers' Associations	171,500		
		Total	7,163,700		
	Increment	GEF	1,001,500		
		Others	1,017,500		
		GOS	1,000,000		
		Env NGOs	17,500		
		Total	2,019,000		
Alternative	Total	9,182,700	- Productivity for the artisanal fisheries around granitic islands and on the Mahé Plateau for high value fish species sustained. Catch per unit effort increased. - Improved governance from co-management systems.	- Improved conservation status of sensitive areas, including fish spawning aggregation sites. - Improved marine ecosystem health. Ecological balance improved. No-take-zones serve as mini-MPA. - Biodiversity conservation is integrated into artisanal fisheries management systems.	
Outcome 3: The tourism industry is addressing biodiversity conservation as part of good practice in business operations	Baseline	Nat Ass	87,200	- Increased national revenue from tourism. - Environmental concerns addressed by Tourism industry	- Regulations reduce the impacts on globally important biodiversity from pollution, sedimentation and habitat loss.
		GOS	1,005,600		
		Env NGOs	1,540,000		
		Private Sector	3,825,000		
		Total	6,457,800		
	Increment	GEF	1,033,000		
		Others	4,375,000		
		GOS	800,000		
		Env NGOs	1,575,000		
		Total	5,408,000		

Outcome	Cost	Cost (US\$)		National Benefits	Global Benefits
	Alternative	Total	11,865,800	<ul style="list-style-type: none"> - The resource base for Seychelles second largest economic sector is better conserved. - Joint management of conservation areas reduces the costs of management to Government. - Private Tourism Industry contributes to nature conservation 	<ul style="list-style-type: none"> - Area of ecologically sensitive areas under effective conservation management increased. - Biodiversity conservation objectives integrated in a cost-effective manner into day-to-day operations of the tourism industry.

Table 20: Summary Incremental Cost Matrix (US\$)

	Baseline	All Stakeholders	23,960,800
Grand Totals	Increment	GEF	3,600,000
		Non GEF	7,626,950
		Total	11,226,950
	Preparation	PDF B	370,000
	Alternative		35,557,750

PART VI: Logical Framework Analysis

The LFA with Project Goal, Objectives and Outcomes is presented in Table 20. Annex II gives LFA with the Outputs + indicators.

Table 21. LFA with Project Goal, Objective and Outcomes..

Project Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Project Target	Sources of verification	Risks and Assumptions
Goal: The functional integrity of terrestrial and coastal ecosystems of the Seychelles is secured and provides a base for sustainable development.						
Project Objective: Biodiversity conservation is integrated into key production sectors of the economy.	<ul style="list-style-type: none"> Area of terrestrial and marine ecosystems under improved management or heightened conservation status. Increase in investments from production sectors in collaborative conservation management models 	No existing joint conservation management plans. US\$295,600 / yr	2000 km ² 50% increase	41,400 km ² 100% increase	<ul style="list-style-type: none"> Geographic Information Systems (GIS) SFA reports STB reports Marine Parks Authority Departments of Forestry and National Parks MLUH Project Progress Reports; Project Annual reports/PIR Surveys STB reports DOT reports SHTA reports SFA reports Statistics Division Tourism operators 	<ul style="list-style-type: none"> Government develops clear incentives and criteria for private sector investment in fisheries management, coral reef conservation, PA co-management and for other biodiversity conservation-related investment opportunities. Tourism and fisheries can survive as vibrant production sector despite changing macro-economic factors such as rising oil prices, probable devaluation of the rupee, etc.

Project Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Project Target	Sources of verification	Risks and Assumptions
Outcome 1: Systemic and institutional capacities for mainstreaming of biodiversity management within and across sectors are strengthened.	<ul style="list-style-type: none"> New legislation is enacted for land use planning 	Present legislation is outdated and ineffective	New comprehensive legislation passed	Laws enacted and implemented	New legislation published in GoS official gazette.	<ul style="list-style-type: none"> Government, civil society and private sector are able to work together in a participatory, constructive fashion. Key stakeholders reach agreement of policy and legal reforms needed. Laws and policies will be enacted promptly without delays that would constrain the timely implementation of the project. MLUH moves forward quickly and efficiently to implement the new land use planning legislation Key stakeholders are willing to undertake an open, participatory planning process for the Outer Islands
	<ul style="list-style-type: none"> % of geographic BD conservation priorities whose zoning status has been revised as needed as part of the land use planning process % of country covered under LWC use plans that have been approved by government 	Zero % 0%; No LWC plans legally approved	10% 40%	40% 100%	Published biodiversity priorities. MLUH records MENR records MTR and final evaluation Targeted and published Surveys	
Outcome 2: Methods and means for integrating biodiversity and artisanal fisheries management are in place.	<ul style="list-style-type: none"> Area for which fisheries co-management plans exist Catch per Unit Effort (CPUE): - inshore Grouper Guild 	0 km ² 0.2 kg/man-hour (2003 estimate)	2000 km ² (near-shore fishing grounds for granitic islands) 0.25 kg/man-hour	41,338 km ² (Mahé Plateau) 0.3 kg/man-hour	SFA-GIS Management Plans SFA Technical Reports Project Progress Reports Regulations SFA technical Reports Progress Reports Fisher Surveys	<ul style="list-style-type: none"> Fishers will enter into co-management systems with government and will form effective associations for self-policing under collaborative management of near-coastal fisheries.

Project Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Project Target	Sources of verification	Risks and Assumptions
	<ul style="list-style-type: none"> - inshore Rabbitfish Guild • Spawning Stock Biomass (SSB) of <i>Lutjanus sebae</i> (Bourgeois; key target species of demersal line fishery) 	<p>2 kg/trap/day (2003 estimate)</p> <p>Fishing effort uncontrolled; no management for SSB. SSB < 20% of unexploited stock.</p>	<p>3 kg/trap/day</p> <p>Fishing effort controlled to attain SSB of > 20 %</p>	<p>4 kg/trap/day</p> <p>Fishing effort controlled to attain SSB of 30 %</p>	<p>Stock assessment</p> <p>SFA technical Reports</p> <p>Progress Reports</p> <p>Surveys</p>	<ul style="list-style-type: none"> • The need for foreign exchange does not drive fishers into unsustainable overharvest of spp. that they can export.
<p>Outcome 3:</p> <p>The tourism industry is addressing biodiversity conservation as part of good practice in business operations.</p>	<ul style="list-style-type: none"> • Additional hectares of ecologically sensitive habitats for which joint conservation management plans with tourism operators exist. • % of tourism operators that complete qualifications and receive the sustainable tourism label. 	<p>Private islands: Frégate, Cousine, D'Arros</p> <p>NGO managed Islands: Cousin, Aride,</p> <p>Zero</p>	<p>+ 2000 ha marine</p> <p>+ 2000 ha terrestrial</p> <p>20</p>	<p>+ 6000 ha marine</p> <p>+ 6000 ha terrestrial</p> <p>40</p>	<p>Project monitoring system;</p> <p>Annual reports: MPA, Departments of Forestry and National Parks, STB, Department of Tourism</p> <p>Reports: Department of Tourism; STB; SBS</p>	<ul style="list-style-type: none"> • Tourism industry is relatively unaffected by external economic considerations, e.g. increases in the price of petroleum, economic recession, etc.

PART VII: Project Total Budget

150 Total project financing amounts to US\$ 11,226,950, excluding preparatory costs. Of this, the GEF will finance US\$ 3,600,000. Total co-financing amounts to US\$ 7,626,950. The detailed UNDP budget per Outcome in ATLAS format is as follows:

Table 22. ATLAS budget UNDP-GEF Mainstreaming Biodiversity into Production Sector Activities.

Total Budget and Work Plan

Award ID:	00045015
Award Title:	Mainstreaming Biodiversity Management into Production Sector Activities
Business Unit:	MUS 10
Project ID:	00053107
Project Title:	PIMS 2053 BD FSP Mainstreaming Biodiversity Management into Production Sector Activities
Implementing Agency:	Project Implementation Unit/Ministry of Environment & Natural Resources
Executing Agency:	Ministry of Environment and Natural Resources

GEF Outcome / Atlas Activity	Responsible Party/Implementing Agency	Fund ID	Donor Name	ERP/ATLAS Budget		Amount Year 1 USD	Amount Year 2 USD	Amount Year 3 USD	Amount Year 4 USD	Amount Year 5 USD	Amount Year 6 USD	Total USD	See Budget Notes
				Account Code	Budget Description								
Outcome 1: Systemic and institutional capacities for mainstreaming biodiversity management within and across sectors are strengthened	UNDP / Min. of Environment and Natural resources (MENR)	62000	GEF	74100	Professional Services Training	106000	93000	59000	34000	30000	30000	352000	1
				71200	International Consultants	112500	142500	0	0	7500	0	262500	2
				71400	Contractual Services – Individuals.	33600	27000	14400	14400	14400	14400	118200	3
				71600	Travel	15000	14000	8000	0	0	0	37000	4
				72100	Contractual Services - Comp	100000	125000	55000	13000	13000	13000	319000	5
				72200	Equipment	37000	9000	3000	3000	3000	3000	58000	6
				74200	Audio Visual & Print productions	6000	8000	6000	4000	4000	4000	32000	7
				74500	Misc.	5000	5000	5000	5000	5000	5000	30000	8
Subtotal Outcome 1						415100	423500	150400	73400	76900	69400	1208700	
Outcome 2: Methods and means for integrating biodiversity and artisanal fisheries	UNDP / MENR	62000	GEF	74100	Professional Services Training	10000	10000	20000	30000	20000	30000	120000	9
				71200	International Consultants	30000	37500	22500	45000	7500	15000	157500	10
				71400	Contractual Services – Individuals.	28000	22500	12000	12000	12000	12000	98500	11
				71600	Travel	0	0	0	0	0	0	0	12
				72100	Contractual Services - Comp	58000	96000	111000	119000	57000	31000	472000	13
				72200	Equipment	34000	26500	6000	17000	3000	3000	89500	14

management are in place				72500	Supplies	2000	2500	2500	2000	2000	1000	12000	15
				74200	Audio Visual & Print productions	0	0	0	11000	6000	5000	22000	16
				74500	Misc.	5000	5000	5000	5000	5000	5000	30000	17
				Subtotal Outcome 2		167000	200000	179000	241000	112500	102000	1001500	
Outcome 3: The tourism industry is addressing biodiversity conservation needs as part of good practice in business operations.	UNDP / MENR	62000	GEF	74100	Professional Services- Training	12000	28000	40000	24000	22000	6000	132000	18
				71200	International Consultants	45000	37500	37500	15000	0	0	135000	19
				71400	Contractual Services - Individuals	28000	22500	12000	12000	12000	12000	98500	20
				71600	Travel	0	0	0	0	0	0	0	21
				72100	Contractual Services - Comp	78000	116000	121000	84000	66000	60500	525500	22
				72200	Equipment	0	24000	20000	4000	6000	3000	57000	23
				72500	Supplies	4000	2000	1000	1000	1000	1000	10000	24
				74200	Audio Visual & Print productions	4000	9000	10000	8000	8000	6000	45000	25
				74500	Misc.	5000	5000	5000	5000	5000	5000	30000	26
				Subtotal Outcome 3		176000	244000	246500	153000	120000	93500	1033000	
Project Own Operational Management	UNDP / Min. of Environment and Natural resources (MENR)		GEF	71400	Contractual Services - Individuals	46400	36000	27600	27600	27600	27600	192800	27
				71600	Travel	3000	4000	4000	4000	4000	4000	23000	28
				72200	Equipment	40000	3000	3000	3000	3000	3000	55000	29
				72500	Supplies	5000	3000	3000	3000	3000	3000	20000	30
				73400	Rental and maint. of other Equip	6000	6000	6000	6000	6000	6000	36000	31
				74500	Misc.	5000	5000	5000	5000	5000	5000	30000	32
				Subtotal Project Management		105400	57000	48600	48600	48600	48600	356800	
PROJECT TOTAL						863500	924500	624500	516000	358000	313500	3600000	

Budget Notes

OUTCOME 1:

1. Local Training (total of 176 days @ US\$2000/day spread over project period – 2007-2012) on:

- Developing Standards for Biodiversity Assessments
- Undertaking and Reporting on Biodiversity Assessments
- Metadatabase development, operation and maintenance
- GIS development and operation for biodiversity assessments and monitoring
- Legal drafting
- Integrating Biodiversity concerns in Land Use Policy
- District Land Use Planning
- Sustainable development plans for outer islands
- Environmental Governance for stakeholders
- Environmental Governance for senior managers / decision makers

2. Long Term (LT) Technical Assistance (TA – total of 18 p.months @ US\$10000/month) to the Ministry of Land Use and Habitat for:

- Land Use Policy Review and Development
 - Legal and regulatory review for mainstreaming BD in land use planning
 - Develop guidelines / protocols for District Land Use Planning and guide and monitor District Land Use Planning process to mainstream BD in planning
 - Integration of Biodiversity Objectives into Sustainable Development Plans for outer islands
- Short Term (ST) Technical Assistance (TA - Total of 23 weeks @ US\$600/day + per diem US\$115/day to assist in:
- Developing Standards for Biodiversity Assessments (4 weeks;
 - Preparation, implementation and reporting on Biodiversity Assessments (3 weeks year 1; 2 weeks year 2)
 - Biodiversity Data Gap Analysis (2 weeks year 1; 2 weeks year 2)
 - Metadatabase development, operation and maintenance (2 weeks)
 - GIS development and operation for biodiversity assessments and monitoring (2 weeks year 1, 2 weeks year 5)
 - Legal Revision and Drafting (of Town and Country Planning Act and Environmental Planning Act; 4 weeks)
3. Contractual Services for International TA (approx. 4 month: US\$11000/month) and National TA (approx. 22 months: US\$34000/month) to assist implementing agencies (DOE, Attorney General, DONR, MLUH, IDC, Environmental NGOs) with:
- Mainstreaming of Biodiversity concerns into their day to day operations;
 - Instilling and ensuring improved environmental governance in day to day operations;
 - Improved cross-sectoral planning vis-à-vis Biodiversity concerns
 - Coordination of biodiversity assessments within a cross-sectoral approach;
 - Coordination of Land Use Planning within a cross- sectoral approach.
 - Monitoring, Learning and Evaluation, including mid- and end-term evaluations
4. Inter-Island Travel for national and international consultants, specifically for Biodiversity Assessments, Land Use / Sustainable Development Planning and Stakeholder Consultation. Travel within Seychelles is very costly, as it is an island nation with over 155 islands, scattered over an Economic Exclusive Zone of 1.4 million km². There is only regular public transport (plane and boat) between the 3 main islands (Mahé, Praslin-US\$90 return, La Digue-US\$160 return). There is no regular transportation to most of the other islands (smaller “inner” islands, and all “outer” islands). Travel to these islands needs to be chartered at high cost from private tourist enterprises (indicative costs: Boat @US\$1000-4000/day, helicopter US\$1000-2000/trip) or from the Island Development Company (IDC), which has the mandate and monopoly on travel to the outer islands. Only 4-5 of the 100+ outer islands are regularly serviced by IDC plane (approx. US\$200/person), for other islands transport needs to be chartered from IDC (plane @ US\$8000, boat @ US\$5000). Cost for longer (±2 weeks) trips to outer islands may therefore vary between US\$5,000 (e.g. Amirantes, Coetivy) -15,000 (Farquhar group, Aldabra group, etc., both >1000km from Mahé) per trip for transport only. See Table below for detailed travel budget.
5. Contracts to local companies / NGOs / Consultants (approx. US\$200/person/day + logistics and overhead) to conduct:
- Biodiversity assessments on all islands (contract sum of 134,000, including some 300 person days for NGOs/Consultants)
 - Biodiversity gap analysis (contract sum of US\$32,000, including some 80 person days for NGOs/Consultants)
 - Establish + maintain databases (contract sum of US\$32,000 for some 80 person days for local specialized ICT company).
 - Review Policy and Regulatory framework for Land Use Planning (Contract sum of US\$20000, including some 100 person days for NGOs/Consultants),
 - Review development planning for outer islands and develop Outer Islands Sustainable Development Plans (contract sum of US\$48,000, including some 100 person days for NGOs/Consultants)
 - Implement external review and monitoring of Project and Biodiversity mainstreaming activities (Contract for NGOs for US\$36,000, including 150 person days)
6. Specialized biodiversity assessment and monitoring equipment (GPS, binoculars, microscopes, telemeters, specialized sampling and collection equipment, small laboratory equipment, etc.); Servers, database hard + software for metadatabase and GIS.
7. Printing, publication and dissemination of Biodiversity Assessments + audio-visual materials for publicizing and awareness.

8. Unforeseen expenditure, mainly to cater for increased costs (e.g. increased foreign currency exchange rates Re. imported equipments, inflation, increased salary levels, etc.), unforeseen need for (hiring of) equipment and transport, hospitality, etc.

OUTCOME 2:

9. Local Training (total of 60 days @ US\$2000/day; spread over project period 2007-2012) on:

- Capacity Building for Associations
- Introduction to fisheries Co-management systems
- Development of fisheries co-management guidelines
- Participatory monitoring of co-management models
- Knowledge management for fisheries co-management

10. Short Term (ST) Technical Assistance (TA - Total of 44 weeks @ US\$600/day + per diem US\$115/day) to assist in:

- Capacity Building for Fishers Associations (5 weeks year 1; 2 weeks year 3)
- Development and setting up of Fisheries co-management models (5 weeks year 1; 6 weeks year 2; 2 weeks year 3)
- Development of fisheries co-management plans (4 weeks year 4; 4 weeks year 6)
- Participatory monitoring of co-management models (4 weeks year 2; 4 weeks year 4)
- Fisheries co-management replication mechanisms and guidelines (4 weeks, year 4)
- Develop and set-up knowledge management systems for fisheries co-management (2 weeks year 3, 2 weeks year 6)

11. Contractual Services for Int. (approx. 3.5 months; US\$11000/months) and Nat. (approx. 18 months; US\$ 3600/month) TA to assist Implementing Agencies (DOE, SFA, Fishers Associations, Environmental NGOs) with:

- Mainstreaming of Biodiversity concerns into day-to-day artisanal fishing operations;
- Ensuring improved environmental governance in day-to-day fisheries operations;
- Improved sectoral and sub-sectoral planning vis-à-vis biodiversity concerns
- Coordination, planning and sustenance of fisheries co-management systems within a (sub-)sectoral approach;
- Inter-(sub)sectoral planning of knowledge management systems
- Monitoring, Learning and Evaluation, including mid- and end-term evaluations

12. Inter-Island and sea travel for national and international consultants, specifically for coordination, supervision and monitoring of pilot fisheries co-management systems on fishing grounds on Mahé plateau (41,400km²). The travel cost for this Outcome to be furnished from co-financing, see Table below for detailed travel budget

13. Contracts to local companies / NGOs / Consultants consortia (US\$200/person/day + logistics and overhead) to:

- Develop, set-up, guide and monitor pilot fisheries co-management sites (initially 2 sites: 1 on trap fisheries and 1 on line-fisheries, later replicated to include 6 other sites; contract sum of US\$352,000, with US\$40-50,000 per pilot site, including some 100 person days per site)
- Develop capacities for fishers associations (total contract sum: US\$14,000, including some 40 person days input)
- Develop fisheries co-management plans (one for trap fisheries, one for line fisheries; contract sum of US\$20,000, with 10,000 per plan)
- Local contracts for monitoring of co-management (Contract sum: US\$50,000, including some 140 person days input)
- Develop guidelines for replication of fisheries co-management models (contract of US\$16,000, includes some 50 person days input)
- Set-up, operate and maintain knowledge management systems on fisheries co-management models (contract sum of US\$20,000, including some 80 person days input)

14. Small boat (160 hp outboard), diving gear, Vessel Positioning Systems (VPS), fishing equipment (traps, lines) for supervision and monitoring of co-management sites on Praslin, where SFA does not have such facilities. Cost for operation and maintenance of these capital items under SFA budget. Server + computer + database hard & software for database and knowledge management systems.

15. Office supplies to assist in set-up and partial running of fishers associations. These associations do not yet exist and the project will assist in setting up of these associations, including the basic infrastructure to undertake their work.
16. Printing, publication and dissemination of guidelines, plans, reports + audio-visual materials for publicizing and awareness.
17. Unforeseen expenditure, mainly to cater for increased costs (e.g. increased foreign currency exchange rates Re. imported equipments, inflation, increased salary levels, etc.), unforeseen need for (hiring of) equipment and transport, hospitality, etc.

OUTCOME 3:

18. Local Training (total of 66 days @ US\$2000/day; spread over project period 2007-2012):
 - Sustainability Label for tourism operators
 - Introduction and adoption of Environmental Management Systems for tourism operators
 - Setting up and function of clearinghouse mechanism for biodiversity conservation for tourism operators
 - Development, set up and adoption of Biodiversity Awards Scheme for tourism operators
 - Sustainable financing models for biodiversity conservation in the tourism sector
 - Knowledge management for fisheries co-management
19. Short Term (ST) Technical Assistance (TA - Total of 38 weeks @ US\$600/day + per diem US\$115/day) to assist in:
 - Finalizing Sustainability Label for tourism operators (4 weeks year 1)
 - Development and adoption Environmental Management Systems for tourism operators (5 weeks year 2; 2 weeks yr 3)
 - Setting up of clearinghouse mechanism for biodiversity conservation for tourism operators (2 weeks, year 3)
 - Development and set up and of Biodiversity Awards Scheme for tourism operators (2 weeks, year 3)
 - Review and development of incentives for biodiversity conservation in the tourism sector (4 weeks, year 1-2)
 - Review and develop sustainable financing models for biodiversity conservation in the tourism sector (2 weeks, year 2)
 - Develop criteria, conditions and priorities for joint management systems of ecological sensitive areas with tourism operators (4 weeks, year 1)
 - Assist in development of demonstration joint management sites (2 weeks yr 1, 2 weeks yr 3)
 - Set up and monitor scheme for joint management systems of ecological sensitive areas with tourism operators (7 weeks, year 3-4);
 - Develop knowledge management system on joint management of ecological sensitive areas within tourism (2 weeks).
20. Contractual Services for Int. (3.5 months; US\$11000/month) and Nat. (18 months; US\$ 3400/month) TA to assist Implementing Agencies (STB, SHTA, DOTT, new Certification Body, SBS) with:
 - Mainstreaming of Biodiversity concerns into day-to-day tourism operations;
 - Ensuring improved environmental governance in day to day operations;
 - Improved sectoral and sub-sectoral planning vis-à-vis biodiversity concerns
 - Ensure the coordination, planning and sustenance of sustainability labelling, EMS, incentive schemes and sustainable financing RE: Biodiversity within a (sub-) sectoral approach;
 - Planning, coordination and sustenance of Joint Biodiversity Management Systems
 - Monitoring, Learning and Evaluation, including mid- and end-term evaluations
21. Inter-Island Travel for national and international consultants, especially for setting-up, coordination and monitoring of joint management systems with tourism operators, which are scattered over inner and outer islands. Travel cost for this outcome to be provided by co-financing. See Table below for detailed travel budget
22. Contracts to local companies / NGOs / Consultants consortia (US\$200/person/day + logistics and overhead) for:
 - Promotion of sustainability label under tourism operators (contract sum of US\$20,000, including 60 person days input)
 - Promotion of EMS under tourism operators (contract sum of US\$20,000, including 60 person days input)

- Setting up and maintenance of clearinghouse mechanism for biodiversity conservation for tourism operators (contract sum of US\$19,000, including 50 person days input)
 - Running of Biodiversity Awards Scheme for tourism operators (contract sum of US\$31,500)
 - Review and development of incentives for biodiversity conservation in the tourism sector (contract sum of US\$12,000, including 40 person days input)
 - Review and develop sustainable financing models for biodiversity conservation in the tourism sector (contract sum of US\$13,000, including 40 person days input)
 - Develop criteria, conditions and priorities for joint management systems of ecological sensitive areas with tourism operators (contract sum of US\$14,000, including a 40 person days input)
 - Develop and maintain knowledge management system on joint management of ecological sensitive areas within tourism (contract sum of 28,000, including a 80 person days input)
 - Contracts to local private tourism operators in partnership with NGOs / Consultants / government / parastatals, to develop, set up and monitor pilot joint-management sites. Total sum of US\$328,000 for a tentative 12 sites @ US\$20 - 30,000/site which will follow a “call for proposal” scheme.
 - Local contracts for monitoring of joint demonstration sites (Contract sum: US\$40,000, including some 100 person days input)
23. Biodiversity monitoring equipment for Joint Management sites (GPS, binoculars, sampling & collection equipment, etc.); Server and database hard- and soft-ware to set up, operate and maintain the clearinghouse mechanism and knowledge management systems
24. Certain office supplies to assist the new to be set up Certification Body (which will oversee, manage and monitor the new sustainability label) with basic infrastructure to undertake their work.
25. Printing, publication and dissemination of guidelines, plans, reports, awards, certificates, etc. + audio-visual materials for publicizing and awareness.
26. Unforeseen expenditure, mainly to cater for increased costs (e.g. increased foreign currency exchange rates Re. imported equipments, inflation, increased salary levels, etc.), unforeseen need for (hiring of) equipment and transport, hospitality, etc.

PROJECT OWN OPERATIONAL MANAGEMENT

27. Contractual Services for part-time Programme Coordinator (approx. 8 months @ US\$4400/month) and part-time Project Manager (approx. 10 months; @ US\$ 3600/month), and part-time support staff (1 accounts & admin + 1 driver/messenger/clerk: approx. 76 months @ US\$1100/month) for internal Project Operational Management. For the purposes of efficiency, 5 planned UNDP-GEF Projects in different Focal Areas (*Mainstreaming Biodiversity Management into Production Sector Activities; Mainstreaming Prevention and Control Measures for Invasive Alien Species into Trade, Transport and Travel across the Production Landscape; Capacity Development for Sustainable Land Management; Capacity Development for national and International Environmental management; Second National Communication to the UNFCCC*) are combining resources to create a common Programme Coordination Unit (PCU), to ensure optimum coordination and effective and efficient use of resources. The PCU will have a Programme Coordinator and Project Managers who will provide day to day coordination, management and accounting for the overall programme and individual projects, respectively. In accordance with both UNDP and GEF policies no GEF project resources will be used to pay any government, agency, NGO staff or personnel. Equally, UNDP project oversight costs are covered through the IA Fee and are not charged to the project budget.
28. Mainly local, inter-Island Travel for Programme Coordinator and Project Manager for project coordination, supervision, consultation, learning and monitoring. Travel for project administration part co-financed, See below for detailed travel budget per Outcome/Output/Activity.
29. One vehicle for coordination, supervision, monitoring and fieldwork (Mahé). Counterpart or co-financing funds not available for this, as this was not catered for in government budget (approved in 2006, when new GEF requirements were not known). Existing government fleet is small and already fully utilized. Rental of vehicles is more expensive than purchase at a cost of > US\$ 200/day. Office equipment (3 computers, software, printer, photocopier, telephone/fax, multi-media projector, cameras, flipchart stands, etc.). These items are necessary for the smooth running of the project and also not catered for in already approved government budget. Furthermore, Seychelles is undergoing balance of payment difficulties which makes foreign exchange outlays (e.g. for vehicle and durable office items) very difficult.

30. Office supplies, spares, etc. for the efficient running of the newly set-up PCU. This is pooled between the different UNDP-GEF projects under the PCU, including from co-financing, for effective and efficient use of resources. Rents and cost of furniture covered by Government.
31. Rental of extra transport (vehicles, including on other islands, boats, etc.) and equipment for short periods (e.g. AV equipment), for coordination and supervision purposes, consultants work, and unforeseen circumstances, etc.
32. Unforeseen expenditure, mainly to cater for increased costs (e.g. increased foreign currency exchange rates Re. imported equipments, inflation, increased salary levels, etc.), unforeseen hiring of equipment and transport, hospitality, etc.

DETAILED TRAVEL COSTS

Travel within Seychelles is very costly, as it is an island nation with over 155 islands, scattered over an Economic Exclusive Zone of 1.4 million km². There is only regular daily public transport (plane and boat) between the 3 main islands (Mahé – Praslin - La Digue). There is no regular transportation to most of the other islands (smaller “inner” islands, and all “outer” islands). Travel to these islands needs to be chartered at high cost from private tourist enterprises (boat, yacht, helicopter) or from the Islands Development Company (IDC). Only 5 of the 100+ outer islands have air strips and are serviced by IDC plane, with only 2 regularly (IDC plane chartered by private hotels). For other islands transport needs to be chartered from IDC, private helicopter or boat charters.

For an overview of normal travel costs:

Regular flights (Air Seychelles):

Mahe – Praslin (4-5 times/day; one way): SCR128 (resident), US\$85.80 (non resident)

Mahe – Denis Island (one way): SCR 250 (resident), US\$165 (non resident)

Mahe – Bird Island: (return + 1 night accommodation): SCR2310 (resident), US\$600 (non resident)

Chartered flights (IDC)

Mahe – Alphonse / Desroches (Hotel transfer, return): US\$200/person

Regular Ferry boat transfer:

Mahe – Praslin (2 times/day, one way): SCR100 (Resident), US\$52 (non resident)

Praslin – La Digue (3 times/day, one way): SCR35 (Resident), US\$13 (non resident)

Plane charter (IDC): US\$3000-10,000/trip (depending on distance)

Helicopter charter (Helicopter Seychelles): US\$1000-2000/trip (depending distance)

Boat charters:

Schooner/Fishing boat: Inner islands: US\$800-1000/day

Sport fishing yacht (inner islands): US\$1000-2000/day

Sailing yacht (inner + outer islands): US\$ 2000-4000/day

IDC (bulk transfer, only to certain main outer islands): e.g. US\$11,500 (Desroches) – US\$23,000 (Assumption) per trip.

Schooner (e.g. Indian Ocean Explorer – outer islands): US\$1000-1200/day

Table 23. Detailed travel costs per activity.

Detailed travel costs per Outcome/Output/Activity:

OUT- COME	OUTPUT*	ACTIVITY*	ESTIMATED TRAVEL COST (US\$)						DETAILS
			Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	

1. Systemic and institutional capacities for the mainstreaming of biodiversity within and across sectors are strengthened	1.1. Information and knowledge management capacity for Biodiversity Mainstreaming is developed. (Indicators: Standards agreed; gaps analyzed; priority assessments done)	Develop standards for biodiversity inventories and assessments + synthesize existing biodiversity data (on inner islands and few priority outer island groups (samples))	8000	0	0	0	0	0	8000	Reconnaissance, stakeholder consultation and collection + consolidation of existing biodiversity data in order to develop standards for biodiversity assessments. 1 trip to inner islands (5 days: 1. Praslin-La Digue-Aride-Cousin-Cousin-Curieuse-Silhouette-North-Fregate + satellite islands: all by regular plane (Praslin) + local boat: US\$3000). Two trips to Outer Islands: 1. Amirantes-Alphonse groups (4 days, plane + local boat: US\$4000); 2. Bird and Denis (2 days, plane + local boat: US\$1000). Usually 2-3 persons travelling on each trip
		Undertake Biodiversity Assessments on all major island Groups, including samples of satellite islands	7000	14000	8000	0	0	0	29000	Inter-Island Travel for 3 persons per trip, for coordinating, facilitation and supervision of Biodiversity Assessments + local training. 1 Trip Aldabra - Farquhar groups (2 weeks, charter boat: 14,000); 1 trip Amirantes – Alphonse – Coetivy groups (8 days, plane + charter local boat: US\$8000); Bird-Denis (1 week, plane + local boat: US\$4000); Inner Islands (1 week, plane + local boats: US\$3000)
	1.2. Land, Water and Coastal Use Plans integrating biodiversity priorities developed and implemented for all Islands (Indicators: new land use policy and regulatory framework; 15 new District Land Use Plans; Sustainable development plan for outer islands)	Develop District Land Use Plans on all inner islands.	0	1000	1000	1000	1000	0	4000	Travel to Inner Islands for field visits, consultations, monitoring (Plane – ferry – local boat: 4 times 2 days: Total US\$4000), with 3-4 persons travelling per trip. All travel funds under this Output will be secured through co-financing from GOS (Ministry of National Development).
		Develop Sustainable Development Plan for Outer Islands	0	14000	10000	0	0	0	24000	Land Use / Sustainable Development Planning for all major outer island groups: 1 Trip Aldabra - Farquhar group (2 weeks, charter boat: US\$14,000); 1 trip Amirantes – Alphonse – Coetivy groups (8 days, plane + charter boat: US\$8,000); Bird – Denis (4 days plane + charter boat: US\$2,000); 3 persons per trip. All travel funds under this Output will be secured through co-financing from GOS (IDC, Ministry of National Development).
	TOTAL OUTCOME 1		15000	29000	19000	1000	1000	0	65000	

	TOTAL GEF OUTCOME 1		15000	14000	8000	0	0	0	37000	Because of imposed budget cuts, it was necessary to decrease the total GEF travel budget. GOS has committed to secure the remaining funds as per original budget plan under this Outcome (US\$28,000), mainly from IDC and Ministry of National Development, as indicated under the different outputs/activities above.
2. Methods and means for integrating biodiversity and artisanal fisheries management are in place	2.1. Pilot co-management systems are developed for artisanal fisheries (Indicators: 7 co-management sites and 6 fishery reserves; as well as 11 co-management committees/associations)	Demonstration trap fisheries co-management around inner islands and fishing banks of Mahé Plateau.	4000	4000	2000	0	0	0	10000	Inter-Island and sea travel, specifically for coordination, facilitation and supervision of pilot fisheries co-management demonstrations (estimated some 10 boat trips to inner islands and fishing grounds on Mahé plateau – 41,400km ² , which involves chartering of boats at US\$1000/day); usually 3 persons per trip. Funds will be secured through co-financing from GOS (mainly from SFA, and new to be established Fishers' Associations)
		Demonstration line fisheries co-management on Mahé Plateau	0	4800	4800	2400	0	0	12000	Inter-Island and sea travel, specifically for coordination, facilitation and supervision of pilot fisheries co-management demonstrations (estimated some 10 boat trips to inner islands and fishing grounds on Mahé plateau – 41,400km ² , which involves chartering of boats at approx. US\$1200/day); 3 persons/trip Funds will be secured through co-financing from GOS (mainly from SFA, and new to be established Fishers' Associations)
		Monitoring of Pilot co-management systems of both trap and line fisheries.	0	2000	2000	2000	3000	3000	12000	Monitoring of trap and line fisheries demonstrations, estimated 12 trips in total to fishing grounds on Mahé plateau – 41,400km ² , which involves chartering of boats at US\$1000/day); usually 3 persons/trip. Funds will be secured through co-financing from GOS (mainly from SFA, and new to be established Fishers' Associations)
	TOTAL OUTCOME 2		4000	10800	8800	4400	3000	3000	34000	
	TOTAL GEF OUTCOME 2		0	0	0	0	0	0	0	Because of imposed budget cuts, it was necessary to decrease the total GEF travel budget. GOS has committed to secure the total travel budget as per original budget plan under this Outcome, mainly from SFA, and new to be established Fishers' Associations, as indicated under the different outputs/activities above.
3. The tourism industry is addressing biodiversity conservation as part of good practice in business operations	3.3. Joint management systems involving tourism operators developed for biodiversity conservation in ecological sensitive areas.	Demonstration sites on joint management of ecological sensitive areas	2000	4000	4000	4000	2000	2000	18000	Inter-Island Travel for national and international consultants, especially for facilitating, setting-up and coordination of joint management systems with tourism operators which are scattered over inner and outer islands (an estimated 9 trips foreseen, including plane, helicopter and boat charters, with varying cost (average US\$2000/trip). 3-4 persons traveling per trip. Funds will be secured through co-financing from GOS (mainly from private tourism sector, in kind or cash contribution for travel to tourism establishments/operations, including yachts, sport fishing and diving areas)

	(Indicator: 10 new partnerships/demonstrations)	Monitoring of joint management sites	0	0	3000	3000	3000	3000	12000	Monitoring of tourism demonstrations: 6 trips foreseen, with varying cost (average US\$2000/trip), including plane, helicopter, boat. 2-3 persons/trip. Funds will be secured through co-financing from GOS (mainly from private tourism sector, in kind or cash contribution for travel to tourism establishments/operations, including yachts, sport fishing and diving areas)
	TOTAL OUTCOME 3		2000	4000	7000	7000	5000	5000	30000	
	TOTAL GEF OUTCOME 3		0	0	0	0	0	0	0	Because of imposed budget cuts, it was necessary to decrease the total GEF travel budget. GOS has committed to secure the total travel funds as per original budget plan under this Outcome, mainly from private tourism sector (contribution to travel in kind or cash)
Project Own Operational Management	Project Management, coordination, consultation and monitoring;		6000	6000	6000	6000	6000	6000	36000	Local, inter-Island Travel for Project Management staff (Programme Coordinator, Project Manager, Accountant, etc.) for project coordination, supervision, consultation, audits, learning and monitoring (as per need, some 18 trips to inner and outer islands (major groups) foreseen, including plane, helicopter and boat charters).
	TOTAL GEF PROJECT MANAGEMENT		3000	4000	4000	4000	4000	4000	23000	Because of imposed budget cuts, it was necessary to decrease the total GEF travel budget. GOS has committed to secure the remaining funds as per original budget plan under Project Administration (US\$13,000), from its own resources.
TOTAL			27000	49800	40800	18400	15000	14000	165000	Original travel budget.
TOTAL GEF			18000	18000	12000	4000	4000	4000	60000	Travel budget for GEF, capped at US\$60,000 over the 6 years project. GOS has committed to secure the remainder of travel funds as per original budget plan, which is needed for the implementation of activities and achievement of Outcomes, mainly from government and private sector (fisheries and tourism) sources.

Table 24. Summary of funds per year per donor / contributor:

Donor	In-kind / cash	Amount Year 1 USD	Amount Year 2 USD	Amount Year 3 USD	Amount Year 4 USD	Amount Year 5 USD	Amount Year 6 USD	Total USD
GEF	Cash	863,500	924,500	624,500	516,000	358,000	313,500	3,600,000
Government of Seychelles	Cash + in-kind	600,000	600,000	500,000	500,000	409,000	400,000	3,009,000
NGOs	In-kind	400,000	400,000	400,000	500,000	500,000	417,950	2,617,950
Private Sector	In-kind	300,000	300,000	300,000	300,000	400,000	400,000	2,000,000
TOTAL		2,163,500	2,224,500	1,824,500	1,816,000	1,667,000	1,531,450	11,226,950

Table 25. Summary of funds per Outcome and per donor / contributor:

Outcome	GEF USD	GOS USD	ENGOS USD	Private Sector USD	Total Co-finance USD	TOTAL FINANCING USD
1. Systemic & Institutional Capacities	1,208,700	439,000	1,025,450		1,464,450	2,673,150
2. Fisheries	1,001,500	1,000,000	17,500		1,017,500	2,019,000
3. Tourism	1,033,000	800,000	1,575,000	2,000,000	4,375,000	5,408,000
Project Operational Management	356,800	770,000			770,000	1,126,800
TOTAL	3,600,000	3,009,000	2,617,950	2,000,000	7,626,950	11,226,950

151 This budget will be revisited and adapted during the Inception Workshop, and will form the basis for the preparation of Annual Work Plans by the Programme Coordination Unit.

Cost Effectiveness

152 The natural ecosystems of the Seychelles are still relatively intact when compared to other small islands. This is because development pressures have hitherto been fairly constrained. However, macro-economic and other stimuli are spurring the country to expand the pace of economic development. This is already manifest in decisions to increase hotel capacity in the country, and pressures to increase the scale of artisanal fisheries and the fishing grounds targeted by fishing vessels. Consequently, threats to biodiversity are set to accelerate substantially. Once degraded, the costs of restoring island ecosystems are extremely high. Indeed, some ecological changes are likely to be irreversible. In contrast, the costs of preventing ecological degradation from occurring in the first place are more modest. This project is different from past programmes in the country in that it seeks to remedy threats to biodiversity by modifying operational practices in production sectors that are the key drivers of economic change. Over the longer term, this approach is expected to be more cost effective than approaches that attempt to address the symptoms of threats without a deeper sector focus. Furthermore, by adopting a precautionary approach to biodiversity conservation, the project is expected to eliminate or lessen threats that might otherwise have occurred, thus reducing future threat mitigation costs, and avoiding the need for costly investments in island restoration.

153 **Fisheries.** The cost of enforcing top-down fishery management approaches without the active participation of fishers is very expensive and in many instances unsustainable. The proposed co-management strategy will shift a portion of the cost burden of compliance monitoring and enforcement to the fishers themselves. Past attempts to create marine protected areas have tended to lock out fisheries, leading to conflicts with fishermen. Such approaches have tended to have high opportunity costs and to work only on a small scale. Fishers were not involved in the creation of the existing MPA network. They resent this and are distrustful of proposals to create new MPAs. By seeking to accommodate production needs with conservation objectives, the proposed strategy is deemed ultimately to have a higher chance of success. Accordingly, this is expected to result in a more effective future application of scarce conservation monies.

154 **Tourism** The project seeks to galvanise support and investment from the tourism industry in managing on-site impacts and off-site externalities. It is recognised that developments may impose collateral damage, even when planned and executed to the highest standards and in compliance with EIA legislation. The project will seek to internalise these costs by providing developers with a menu of management options, which could include on-site and off-site remediation work. While investment will be encouraged through modifications to tourism licensing regimen and through incentives, the focus will be on setting standards and leaving it to the operator to work out how best they may be realised. This approach is anticipated to be more cost effective in the long run when compared to strict command and control approaches.

PROJECT DOCUMENT

Republic of Seychelles

United Nations Development Programme

Global Environment Facility

**Full Project: “Mainstreaming Biodiversity Management
into Production Sector Activities”**

ANNEXES

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Annex I: Threats and Root Causes Matrix

Threat/Impact	Root causes	Management issues/key barriers	Solutions: Interventions from Project / Barrier removal activity	Baseline activity
<p>Sector – Fisheries has in the recent years been the greatest contributor to national GDP. This is mainly due to the open ocean, pelagic fisheries, which is dominated by foreign tuna fishing fleets. Artisanal fisheries cover the nearshore waters around the islands and the entire, submerged Mahé Plateau. Artisanal fisheries are the basis for all of the local fish consumption in Seychelles, and is estimated to employ around 15% of the population. Artisanal fisheries have traditionally been characterized by open access and top-down management by the State. Overfishing is becoming more widespread but pressures are still localized. Other threats to the marine environment, especially the reef ecosystems, include bleaching events, nutrient pollution, sediment deposition and physical damage from anchors, trampling etc.</p>				
<p>Over harvesting of fish stock</p> <ul style="list-style-type: none"> • Depletion and or loss of predatory species leading to inter-specific impacts down the food chain. • Localized loss of biodiversity and disturbed ecosystem function • Accidental introduction of exotic species/ pathogens (port, aquaculture, other sources) 	<ul style="list-style-type: none"> • High ecological complexity of reef ecosystems makes science-based management difficult • Tradition of open access – • Sea cucumbers under heavy pressure because they can be sold for scarce foreign exchange. • Tradition of top-down management • Outer Islands have little physical presence & limited controls against poachers • No controls and data on recreational fishing • Poor compliance to restrictions in marine protected areas and other regulations (lobster, etc.) 	<p>Systemic/Institutional Capacity</p> <ul style="list-style-type: none"> • Little development of public/private/ civil society partnerships for artisanal fisheries management. • The most effective management systems require fishers to “self-police”, but fishers are very independent by character and poorly organised. Fishers are poorly represented by institutions • Clear incentive systems for sustainable management have not been developed • Outer Islands: <ul style="list-style-type: none"> • Lack of physical presence, surveillance & enforcement on most islands • Little stakeholder involvement • High costs • Poor control and enforcement of fishing restrictions in MPAs/ reserves. <p>Property rights</p> <ul style="list-style-type: none"> • Fishing grounds are publicly owned rudimentary resource partitioning is evolving for most artisanal fisheries. • Totally unregulated recreational fishing <p>Technical/Management Know-how</p> <ul style="list-style-type: none"> • Only one artisanal fishery (sea cucumber) has a management plan • Fisheries management systems (e.g. no-take-zone or NTZ management) are largely untested in Seychelles 	<p>Systemic/Institutional Capacity</p> <ul style="list-style-type: none"> • Awareness raising for fishers on the potential for increasing catch and profits through co-management systems, of creating representative institutions and of developing adaptive management systems in partnership with SFA. • Facilitate development of fishers’ associations in pilot sites for the development of near-shore fisheries co-management systems <p>Property rights</p> <ul style="list-style-type: none"> • Facilitate designation of spatial boundaries defining fishing rights for local fishers at pilot sites • Empowerment of fishers’ association to develop and apply rules for the use of fisheries resources within pilot sites. <p>Technical and management know how</p> <ul style="list-style-type: none"> • Investigate, test and develop co-management systems for key artisanal fisheries at pilot sites. • Target fisheries that have the greatest impact on biodiversity • Testing of no-take zone management techniques. • Develop self-policing and self-financing systems 	<p>Baseline</p> <ul style="list-style-type: none"> • Institutional framework for fisheries management in place (MENR, SFA); • Project on co-management of sea cucumber fishery (FAO – SFA) just completed. Resource base assessed and participatory management plan in place • Fisheries management policies in place; stock assessments for species or groups; • Project on spawning aggregations (MASMA-SFA) to identify spawning aggregations sites and propose management measures with participatory approach. • Some level of monitoring of artisanal fisheries in

Threat/Impact	Root causes	Management issues/key barriers	Solutions: Interventions from Project / Barrier removal activity	Baseline activity
		<ul style="list-style-type: none"> • Management/enforcement lag behind technological advances • Little involvement of fishers in development/ application of regulations (sea cucumber is the one exception) • Limited technical capacity to do marine research 	<ul style="list-style-type: none"> • Development of monitoring and evaluation systems for adaptive co-management) and capacities for adapting and replicating successful co-management systems to other suitable areas. 	place but needs improvement and increased accuracy.
<p>Sector – Tourism: Tourism has developed spectacularly since 1972 to become one of the two main productive sectors (with fisheries) of importance. Tourism contributed 19% percent of the country's GDP in 2004, and directly provided for 20% of national employment. Seychelles has in the recent past attempted to attract the “high end” component of the tourism sector reflected in the principal marketing slogan “Seychelles – as pure as it gets”. The main threats from tourism concern; a) siting and damage to sites; b) pollution, and; c) off-site impacts – visitor numbers in sensitive areas, over-harvest of wild resources. Tourism siting and development are not guided by a land use plan. There have been some impressive success stories of private tourism sector/NGO partnerships for IAS eradication and rehabilitation on small islands. Several issues surrounding tourism development still remain unresolved and pose serious threats to biodiversity conservation: These include lack of definition of tourism carrying capacities and need to better quantify tourism-derived impacts on biodiversity.</p>				
<p>Uncontrolled tourism development:</p> <ul style="list-style-type: none"> • Impacts of construction (mostly on flat coastal land): Habitat destruction (wetlands, reefs, sea grass beds, lowland forest), dredging, runoff/ sedimentation, changes to ecology/ hydrology (sea walls, etc) • Impacts of tourism operations: <ul style="list-style-type: none"> • Stress/disturbance sea life/ trampling & physical disturbance reefs/ anchor damage • Sewage/ nutrient 	<ul style="list-style-type: none"> • Very strong economic drive to increase visitor numbers • Strong economic incentives to maximize benefits and to minimize costs • Poor siting and construction of new developments • Increased incoming and inter-island movement of persons and goods • Land use conflicts between various sectors. • Visitors expectations of the tourism product (easy access, products available, high demands on resources - water requirements, etc.) 	<p>Systemic/Institutional Capacity</p> <ul style="list-style-type: none"> • Inadequate land use planning system for zoning and controlling site selection. • Inadequate monitoring and quality control of construction; EIA mitigation measures not enforced • International standards for tourism infrastructure/operations not applied or weakly applied • There is a lack of knowledge on costs and benefits of biodiversity friendly investment opportunities: <ul style="list-style-type: none"> • Benefits of eco-certification/labelling; • Benefits of environmental management systems (EMS); • Benefits of investment in BD conservation. • Little/no incentive to invest in conservation of BD, e.g. management/ protection ecologically sensitive areas. <p>Property rights</p> <ul style="list-style-type: none"> • No established criteria and system for leasing of ecologically sensitive areas to 	<p>Systemic/Institutional Capacity</p> <ul style="list-style-type: none"> • Develop and implement a viable eco-certification/labelling scheme for tourism operators • Develop financial incentives for a much broader involvement of tourism sector private investments in nature/ biodiversity conservation. • Assist Seychelles Investment Board (SIB) to develop guidelines for new tourism investors on how they can integrate environmental concerns into their investments <p>Technical/Management & Know how</p> <ul style="list-style-type: none"> • Analyze the profitability and relevance for EMS investments and promote those that are attractive for tourism operators. • Develop criteria for public/ private partnerships for management of ecologically sensitive areas and actively promote joint management systems. • Conduct, in combination with the 	<p>Sustainable Development Baseline</p> <ul style="list-style-type: none"> • EIA process in place and functioning although public participation, monitoring and enforcement needs to be encouraged • Investments in sewage treatment and solid waste management plan on granitic islands <p>Baseline</p> <ul style="list-style-type: none"> • GOS and industry committed to development of tourism label • One carrying capacity assessment study completed (La Digue) • Strategy and Action Plan on

Threat/Impact	Root causes	Management issues/key barriers	Solutions: Interventions from Project / Barrier removal activity	Baseline activity
<p>pollution/ sedimentation</p> <ul style="list-style-type: none"> • Introduction of IAS through : construction materials, ornamentals, increased variety food imports • Over-harvest for craft industry: coco-de-mer, sea shells, etc. 		<p>private operators</p> <p>Technical/Management know how</p> <ul style="list-style-type: none"> • Ecological tourism carrying capacity poorly studied, poorly defined and not applied; • No limit of acceptable changes established • Poor awareness by DMC's and tourists of impact of tourism on biodiversity issues, • Few tourism operators understand costs & benefits of investments in biodiversity conservation 	<p>industry, a review of lessons learned and best practices for biodiversity friendly practices for tourism operators and disseminate actively (e.g. a business clearing house mechanism)</p> <ul style="list-style-type: none"> • Targeted marketing / awareness campaigns to inform DMC's and tourists on biodiversity threats, and measures to overcome these 	<p>Environmental Management Systems (based on ISO 14001) has been developed by Working Group and a first test was run for a small hotel in South Mahé</p> <ul style="list-style-type: none"> • Ecotourism Strategy in place. • Anse Royale District Eco-tourism committee in place
<p>Cross-cutting Sector Threat - Physical Development: Almost all of the population of Seychelles, and approximately the same proportion of its physical development is found on Mahé, Praslin and La Digue, especially in a small concentrated band along the East and North coast of Mahé. Physical development, i.e. infrastructure and construction, is closely linked to the economic development of the country, and may result in physical destruction and fragmentation of habitats and ecosystems. There is no formal and comprehensive land use planning system that guides changing land uses and that ensures that biodiversity conservation priorities are given due consideration.</p>				
<p><i>Physical impacts --</i> Expansion of infrastructure (roads, housing, industrial areas, tourism developments) may result in:</p> <ul style="list-style-type: none"> • Destruction / fragmentation of habitats / ecosystems • Erosion & sedimentation of coral reefs / marine ecosystems <p><i>IAS – Disturbances</i> accompanying construction greatly favor the rapid spread</p>	<ul style="list-style-type: none"> • Demographic growth and increasing economic development drive pressures for land development; • Granitic islands have very steep lands with very narrow, flat sandy coastal strip – very small area suitable for development; • Importance and value of biodiversity not favored – no cost/benefit calculus of development 	<p>Systemic/Institutional Capacity</p> <ul style="list-style-type: none"> • Lack of strategic, forward looking land use planning; mechanisms for setting multi-sectoral development priorities ill-defined <ul style="list-style-type: none"> • Town & Country Planning Act 1972 is outdated • 1992 Land Use Plan not enacted • Little involvement of stakeholders in land use planning and development and limited capacity of Government / NGOs / private sector to work together constructively • No land use planning for Outer Islands integrating BD conservation and development options • Developers/investors not respecting guidelines and regulations; • Limited public understanding of environmental issues and value placed 	<p>Systemic/Institutional Capacity</p> <ul style="list-style-type: none"> • New legislation for LUP based on a transparent review of Town and Country Planning Act (TCPA) and Environment Protection Act (EPA), including EIA regulations, that takes into account biodiversity concerns. • Develop participatory approaches for development and implementation of LUP • Develop basis for integration of environmental economics and biodiversity concerns in land use planning. • Prepare a strategic land use plan that integrates biodiversity priorities • Develop necessary capacities for developing and implementing participatory land use plans 	<ul style="list-style-type: none"> • A framework GIS in place in MENR & MLUH • The Local Government Division has initiated district level analysis Designation of about 370 areas as “Sensitive Areas”, many of which are important biodiversity site • Functional system for EIAs in place; • A District Development Plan Project started in 1999, in the Ministry of Land Use and

Threat/Impact	Root causes	Management issues/key barriers	Solutions: Interventions from Project / Barrier removal activity	Baseline activity
of IAS		<p>on biodiversity</p> <p>Technical/Management Know-how</p> <ul style="list-style-type: none"> • Weak capacities and systems for the management of knowledge for land use planning • Biodiversity hotspots not adequately identified & integrated into land use zoning/ planning/ enforcement • Fine scale habitat mapping/ gap analysis/ ecosystem assessments not done for majority of critically threatened sites, and land use zones (LUZ) not designed to ensure optimal conservation status of priority sites 	<p>Technical and management know how</p> <ul style="list-style-type: none"> • Model process for consultation and identification of land use conflicts applied. • Include the Outer Islands in a planning process that involves all stakeholders and that integrates biodiversity concerns. • Conduct biodiversity surveys to fill strategic gaps in the BD information base and to complete identification of priorities • Conduct a gap analysis – develop new land use zoning integrating biodiversity priorities. • Develop guidelines and procedures for district land use plans • Promote biodiversity friendly practices in construction • Decentralise and expand national GIS capacity. 	<p>Habitat that should cover all the Districts; 2 District Land Use Plans (DLUP) have been developed, but so far none has been approved.</p> <ul style="list-style-type: none"> • Division of Environment. • Biodiversity Assessments for some islands done, and some underway (not all reported)

Annex II: LFA, Project Outputs + Indicators

Project Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Project Target	Sources of verification	Risks and Assumptions
Outcome 1: Systemic and institutional capacities for the mainstreaming of biodiversity within and across sectors are strengthened.						
Output 1.1: Information and knowledge management capacity for Biodiversity Mainstreaming is developed	<ul style="list-style-type: none"> Agreed standards for biodiversity inventory, assessment, monitoring, data storage and access applied. Synthesis of biodiversity priorities and gap analysis completed and used to identify appropriate land use zoning categories for every priority biodiversity conservation site in country Guidelines for integrating geographic biodiversity conservation priorities are formally adopted as part of the land use planning process. 	<p>No agreement on standards</p> <p>Gaps in Marine PAs identified; no gap analysis and no proposals for rezoning in terrestrial PA</p> <p>No guidelines exist</p>	<p>Standards agreed, staff trained and standards applied</p> <p>Synthesis of biodiversity priorities and gap analysis completed for Inner Islands and nearing completion for Outer Islands</p> <p>Guidelines completed</p>	<p>Standards agreed, staff trained and standards applied. Data sets produced.</p> <p>Priorities and gap analysis completed and appropriate land use zoning categories identified for each priority site</p> <p>Guidelines completed and formally adopted</p>	<ul style="list-style-type: none"> Published standards MTR Published biodiversity priorities Published gap analysis Published recommendations for land use zoning of all priority sites Published guidelines 	<p>Government, NGOs and Private Sector collaborate to share and synthesize existing biodiversity survey data</p>
Output 1.2 : Land, Water and Coastal Use Plans integrating biodiversity priorities developed and implemented for all Islands	<ul style="list-style-type: none"> Law enacted for the development and enforcement of a participatory land, water and coastal use planning process integrating biodiversity priorities; National Land, water and coastal (LWC) plan, integrating priority biodiversity conservation sites, legally adopted 	<p>Present land use planning legislation dates to 1972, outdated and inadequate.</p> <p>The existing 1992 Land Use Plan covers only 3 islands, has no legal status, is out of date and no distinct biodiversity concerns integrated</p>	<p>New land use planning legislation enacted with first pilot implementation underway.</p> <p>Participatory land, water and coastal use planning process underway.</p>	<p>New law remains in force.</p> <p>LWC plan completed and approved</p>	<ul style="list-style-type: none"> Law published in the legal gazette. Approved, signed LWC use plan. 	<ul style="list-style-type: none"> Key stakeholders support adoption of new legislation; The land use planning process will be an open, transparent participatory process The new land use plan will be legally adopted Priority Biodiversity information available and of acceptable standard

Project Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Project Target	Sources of verification	Risks and Assumptions
	<ul style="list-style-type: none"> District Land Use Plans developed, integrating land use zoning and biodiversity concerns Participatory sustainable development plan for the Outer Islands developed and adopted 	<p>in plan</p> <p>2 District Land Use Plans developed, but not adopted. No distinct BD concerns represented in plans.</p> <p>No overall plans approved for Outer Islands. An initial draft of investment opportunities prepared.</p>	<p>5 District Land Use Plans adopted following Guidelines and integrating BD concerns</p> <p>Participatory analysis integrating BD priorities and economic analyses of use options underway</p>	<p>15 District Land Use Plans adopted following Guidelines and integrating BD concerns</p> <p>Sustainable development plan completed and implementation underway</p>	<p>Approved, signed District Land Use Plans use plan.</p> <p>Published and adopted sustainable development plan. Developments undertaken (SIB reports)</p>	<ul style="list-style-type: none"> IDC will participate fully in an open participatory land use planning process for the Outer Islands and Silhouette.
Output 1.3: Stakeholders are effectively engaged in mainstreaming Biodiversity	<ul style="list-style-type: none"> An operational, participatory stakeholder review of the project Mid level and senior sectoral Managers trained in “Environmental Governance” (i.e. strategic planning, policy development and stakeholder involvement). Stakeholders in production sectors aware of mainstreaming biodiversity issues 	<p>No effective stakeholder review of environmental programmes in place.</p> <p>Ad hoc management courses for mid and senior level managers offered (at Seychelles Institute for Management - SIM). Other, short-term ad-hoc training also exists (e.g. projects)</p> <p>Quite a number of public awareness activities in media on biodiversity, though not always</p>	<p>Three reviews of project and relevant other programmes conducted</p> <p>Set courses for mid and senior level managers in Environmental Governance developed and conducted</p> <p>25% of persons engaged in production sectors know of biodiversity</p>	<p>Six reviews and final evaluation of project and other relevant programmes conducted</p> <p>80% of mid and senior level managers in environment and production sectors trained</p> <p>80% of persons engaged in production sectors know of biodiversity issues relating to</p>	<ul style="list-style-type: none"> Minutes of meetings Reviews Evaluation Report SIM reports; Reports from Manpower Department; Annual Reports from Departments, NGO’s, Companies Surveys; Reports of awareness programmes carried out 	<ul style="list-style-type: none"> Stakeholders see benefit in participating in review process. Stakeholders have interest in training on “Environmental Governance”.

Project Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Project Target	Sources of verification	Risks and Assumptions
		well targeted and monitored. Level of awareness on key issues not measured.	issues relating to their sector	their sector		
Outcome 2: Methods and means for integrating biodiversity and artisanal fisheries management are in place.						
Output 2.1: Pilot co-management systems are developed for artisanal fisheries	<ul style="list-style-type: none"> No. of co-management areas/sites; No. of co-management committees / associations 	0	2 co-management sites (trap fishery) + 2 fishery reserves (trap)	5 co-management sites (trap) 4 fisheries reserves (line + trap)	<ul style="list-style-type: none"> SFA-GIS; Regulations Progress Reports 	<ul style="list-style-type: none"> Fishers are able to effectively self-police themselves Fishers able to form appropriate groupings / committees / associations.
Output 2.2: Capacity to replicate and adapt the piloted management systems is developed and applied to new areas.	<ul style="list-style-type: none"> Number of new sites brought under collaborative management % of interested NGOs, tourism operators, SFA and other stakeholders receive training in guidelines for replication / adaptation of co-management 	Zero	Zero	Five, including one replication funded by GoS or non-project source.	<ul style="list-style-type: none"> SFA Annual reports EOP Evaluation 	<ul style="list-style-type: none"> The development of collaborative management at the pilot site(s) proves successful. SFA and/or other donors provide funding for replication
Outcome 3: The tourism industry is addressing biodiversity conservation as part of good practice in business operations.						
Output 3.1: A tourism sustainability label and Environmental Management Systems will be adopted by tourism	<ul style="list-style-type: none"> Number of tourism operators with eco-certification / sustainability labels Number of tourism operators certified as meeting EMS standards 	Zero	5	20	<ul style="list-style-type: none"> Annual report of SBS STB reports 	<ul style="list-style-type: none"> Tourism operators can be convinced that eco-certification and EMS are in their financial interest

Project Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Project Target	Sources of verification	Risks and Assumptions
operators						
Output 3.2: Incentives and sustainable financing mechanisms for mainstreaming biodiversity management in the tourism sector in place.	<ul style="list-style-type: none"> Incentives established for joint management of ecologically sensitive areas, and adoption of sustainable tourism label and EMS. % of tourism operator benefiting from new incentives 	<p>No explicit incentives developed for any of these issues</p> <p>None</p>	<p>Full list of potential incentives identified. Merits of each under study. Incentives for joint mgt. Established.</p> <p>25%</p>	<p>All incentives established, publicised & operational</p> <p>50%</p>	<ul style="list-style-type: none"> Ministry of Economic Planning and MOF documentation. DOT/STB policies STB reports; SHTA reports Project Reports Industry audit reports 	<p>Ministry of Economic Planning and Ministry of Finance fully engaged in development of incentives</p> <p>Incentives acceptable to industry</p>
Output 3.3: Joint management systems involving tourism operators developed for biodiversity conservation in ecological sensitive areas	<ul style="list-style-type: none"> The number of joint management partnerships between tourism operators and government, communities, fishers and/or NGOs for conservation management. Website / clearinghouse describing criteria, roles, responsibilities for partnerships and methods of monitoring and supervision of joint management in ecologically sensitive areas 	<p>6 existing partnerships²³ ;</p> <p>No model for new investors to partner with GO or NGO for conservation practices</p> <p>No – criteria, roles, responsibilities and methods of monitoring and supervision undefined</p>	<p>5 new partnerships for conservation Management.;</p> <p>50% of new tourism developments have partnerships</p> <p>Website with all this information exists</p>	<p>10 new partnerships;</p> <p>All new tourism developments have established partnerships for conservation practices</p> <p>Website with all this information exists and is used</p>	<ul style="list-style-type: none"> Survey of tourism operators Annual reports; STB reports; MENR reports Published criteria, roles, responsibilities and methods of monitoring and supervision for joint management 	<ul style="list-style-type: none"> Government is willing to expand the roles of tourism operators, communities, fishers and NGOs in PA management. Tourism operators find it to be in their financial interest to invest in active conservation management

²³ Banyan Tree – MCSS; 2. North Island – ICS – PCA – MENR; 3. Denis – Nature Sez.; 4. Cousine – Cousin – Nature Sez. (under GEF project); 5. Silhouette Island resort, IDC, NPTS; 6. Aride - ICS

Project Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Project Target	Sources of verification	Risks and Assumptions
	(gazetted or non-gazetted).				systems <ul style="list-style-type: none"> • Website access audit. • Website user survey 	

Annex III: Stakeholder Involvement Plan

Introduction

1. The Stakeholder Involvement Plan specifies goals and objectives for stakeholder involvement, identifies key stakeholders and their interests relative to the project and describes how stakeholders will be involved in the implementation of each project outcome. The Plan was designed based on: (1) a review of documents, especially the *Seychelles National Capacity Self-Assessment* (2005) and PDF-B consultant reports (listed in Annex V), (2) a Stakeholder Workshop, held November 10, 2005, involving 55 participants, (3) selective interviews with key stakeholders, and (4) project team discussions.

Goal and Objectives for Stakeholder Involvement

2. The *goal* for stakeholder involvement in the Project is: **to ensure that all stakeholders who are affected by, have a role in, or are interested in project themes have the opportunity to be involved in and develop a sense of “ownership” of the project.** The *objectives* of the Plan are threefold, as follows:

- a) To ensure that the laws, policies, plans and strategies produced during the project are implemented effectively by involving relevant stakeholders;
- b) To promote good environmental governance mechanisms, including transparency, accountability, cooperation and collaboration among stakeholders; and
- c) To promote multi-stakeholder collaboration in the implementation of project activities, including: effective use of Government, NGO, private sector and community expertise and resources, improved communication channels, and innovative partnerships to address biodiversity priorities, building on the respective strengths of each stakeholder.

Methods and Strategies for Stakeholder Involvement

4. The Project will involve stakeholders using three distinct but overlapping methods, as illustrated by the model presented in Figure 1. The Project incorporates three strategies for stakeholder involvement, as follows:

(i) *An Output, under the Outcome of “Enabling Environment” on “Stakeholder Involvement”* Improving stakeholder involvement is considered so important that it was made a separate output, with specific activities.

(ii) *Involvement by Stakeholders In Activities Under All Outcomes:* Multiple stakeholders will also have to be involved in each of the other outcomes for them to be successfully implemented. Many of the proposed project outputs require specific stakeholders to be aware, consulted and/or participate directly.

(iii) *Stakeholder Capacity Development:* The project incorporates measures to build the capacity of stakeholders to make project results more sustainable over the long run. This includes capacity development to plan and implement more effective awareness-raising, as well as capacity for improved cooperation and collaboration between stakeholders.

Stakeholder Analysis

5. Table 1 lists stakeholders who are affected by, have a role in, and/or are interested in project themes, along with a brief description of their mandate or role.

Figure III. 1. Methods for Stakeholder Involvement

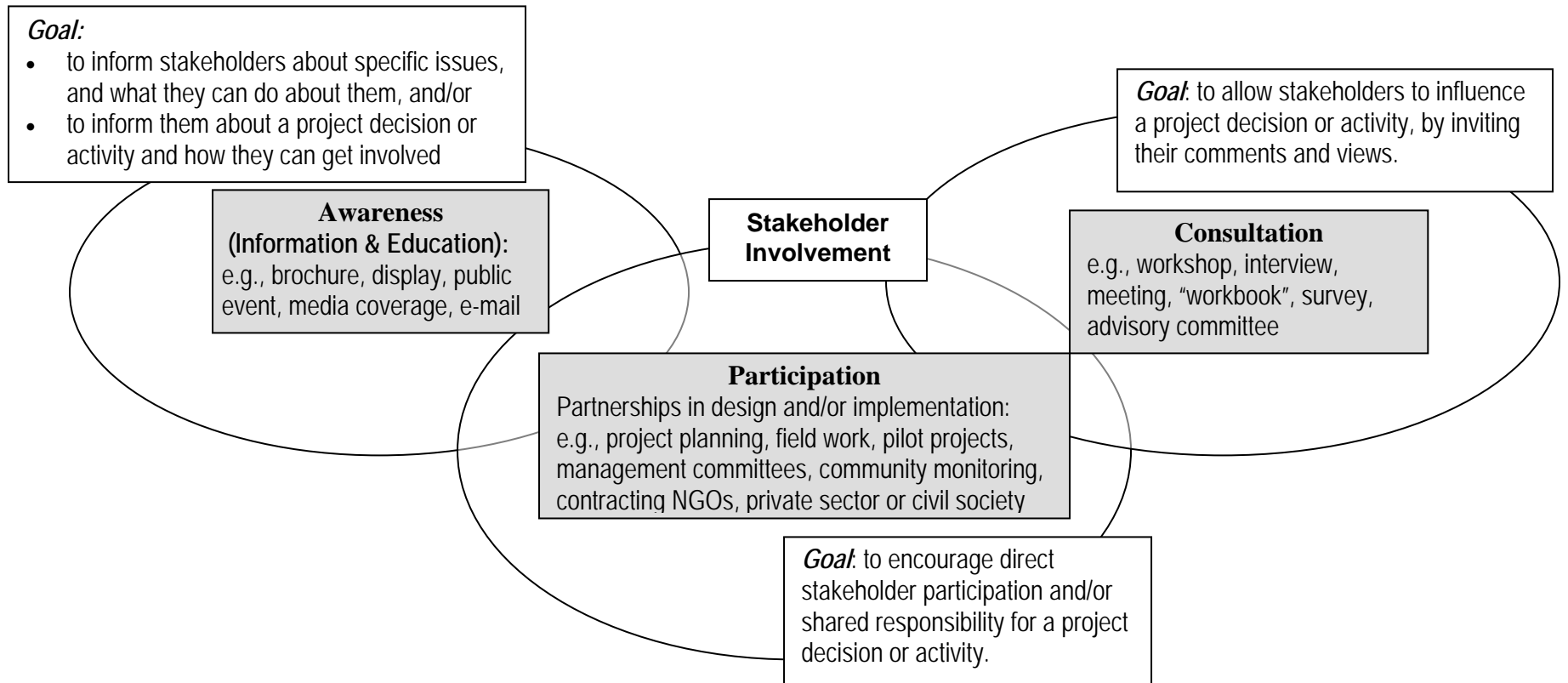


TABLE III.1: Stakeholder Analysis Matrix

STAKEHOLDERS	MANDATE AND CURRENT ROLE RELATED TO PROJECT
<i>High-level Bodies (policy, planning, advisory)</i>	
Cabinet	Final level of approval for decisions.
National Assembly	A member of the National Assembly is elected in each district by the adult population. The MNA is the democratically elected representative of the district inhabitants. Some others MNAs are representing their party on the proportional basis.
National Inter-ministerial Committee	High-level decision-making body, chaired by the Vice-President and composed of 23 members, mostly Principal Secretaries.
Planning Authority 12 members: 5 Principal Secretaries (PS), chaired by PS, MLUH, 5 technical + Seychelles Chamber of Commerce	Deals with planning and building applications, setting urban guidelines and preparing land use plans.
EMPS Steering Committee	Multi-stakeholder body with over 40 members, which oversees implementation of 2000-2010 Environmental Management Plan Seychelles (EMPS).
<i>Government Ministries and Departments</i>	
<p>Ministry of Environment and Natural Resources (MENR) (Divided into two Departments, with Divisions, Sections and Units – see below)</p> <p>MENR: Department of Environment</p> <p>Units:</p> <ul style="list-style-type: none"> • Information, Education and Communication Unit • International Conventions Unit • Legal Unit <p>Sections:</p> <ul style="list-style-type: none"> • Environmental Engineering • Policy and Planning Services (Meteorological Services, Policy Planning, Wetland & Hydrological Services) • Pollution Control & Environmental Impact Assessment (Solid Waste, Pollution Prevention Control, EIA) • Nature and Conservation (Forestry, Conservation, Botanical Gardens) • National Parks & Forestry 	<p>Agency with responsibility for environment, including biodiversity, physical environment (i.e. Environmental Impact Assessment, pollution control, solid waste management, water resources), agriculture, land and marine resources.</p> <p>The Department’s objectives are as follows:</p> <ol style="list-style-type: none"> 1. to promote public awareness of the need to protect, preserve and improve the environment; 2. to ensure a sustainable socio-economic development of Seychelles by a judicious use and management of the resources of Seychelles; and 3. to take measures to promote the protection, preservation, and improvement of the environment.
<p>MENR: Department of Natural Resources</p> <p>Sections:</p> <ul style="list-style-type: none"> • Agricultural Planning • Livestock • Plant Genetic Resources • Plant Protection • Vegetable Evaluation Research • Veterinary <p>Units:</p> <ul style="list-style-type: none"> • Fisheries Policy Unit 	<p>The Department’s objectives are as follows:</p> <ol style="list-style-type: none"> 1. to guarantee national food security 2. to promote local production with the aim of reducing reliance on imports 3. to ensure wise use and management of the natural resources of Seychelles whilst taking measures to protect and preserve the natural the environment.

Ministry of Foreign Affairs (MFA) <ul style="list-style-type: none"> • International Relations • Legal Affairs • Protocol 	Agency responsible for official international relations.
Ministry of Economic Planning and Employment (MEPE) <ul style="list-style-type: none"> • Division of Economic Planning • Department of Employment 	Ministry responsible for all matters relating to macro-economic development, including development and coordination of industry promotion, policy and legislation, as well as employment.
Ministry of Land Use and Habitat (MLUH) <ul style="list-style-type: none"> • Development Planning Division <ul style="list-style-type: none"> ▪ Land Use Planning (includes Strategic Planning) ▪ Development Control • Land and Territories • Geographic Information Systems/Geo Informatics • Habitats 	Agency responsible for land use planning and development including natural resources such as sand and gravel extraction, quarrying, etc.
Ministry of Finance (MoF) <ul style="list-style-type: none"> • Trade & Commerce • Business tax • Social security • Customs • Financial Planning & Control • Customs Section 	Portfolio for national laws and regulations on taxes etc and final arbiter of Government annual budgets.
Ministry of Local Government, Culture and Sport (MLGCS) Department of Local Government	Its mission is to empower local communities to be involved in determining their needs to promote social and economic well-being. District Administrators, who live and work in the district, are appointed by the governing party and are officers of the MLGCS.
Department of Tourism and Transport (DOTT) <ul style="list-style-type: none"> • Department of Tourism • National Ecotourism Committee • Committee for Projects (NEPAD) • Maritime Safety Administration 	Deals with the Government-related tourism and transport portfolio. Has a primary focus on tourism policy development, while operational matters are dealt with by Seychelles Tourism Board.
Seychelles Tourism Board (STB)	Multi-sectoral Board mandated to look at development and marketing of local tourism.
Seychelles Center for Marine Research and Technology (SCMRT/MPA)	Authority responsible for Marine Parks, promotion and facilitation of marine research and application of appropriate marine technologies in Seychelles. (MENR is the parent ministry).
Seychelles Bureau of Standards (SBS)	Oversees various environmental standards for industry and Government/private practice. Also functions as repository for scientific literature on Seychelles.
Ministry of Education and Youth (MEY)	Government agency responsible for public education and addressing matters of primary concern to, and providing services for the youth of the country. Also includes Department for Human Resources Development.
Attorney General	
<i>Parastatals</i>	
Seychelles Fishing Authority (SFA)	Authority responsible for management of renewable marine resources. (MENR is the parent ministry).
Public Utilities Corporation (PUC)	Responsible for provision of water and electricity to the country's consumers. Divided into two divisions - water and electricity. (MENR is parent Ministry).
Seychelles Petroleum Company (SEYPEC) Exploration Dept of SEPEC (formerly SNOC)	Responsible for the import, export and provision of petroleum products to consumers. Responsible for oversight of sea floor geological surveys and oil prospecting.

Island Development Corporation (IDC)	Manages outer islands and Silhouette. (MEPE is parent Ministry).
Seychelles Coastguard	Patrols & monitors activities in the EEZ.
Seychelles Ports Authority	Responsible for operation and management of Port Victoria.
Maritime Safety Administration	Responsible for marine-safety related activities
Licensing Authority	Responsible for issuing licensees to private operators
Seychelles Investment Bureau (SIB)	Facilitates investment in Seychelles private sector
Environmental NGOs	
Island Conservation Society (ICS)	Biodiversity conservation and research in outer islands as well as public education. Manages Aride Island Special Reserve.
Marine Conservation Society, Seychelles (MCSS)	Primary role to research and assist conservation and management of Seychelles marine ecosystems; incorporating the Shark Research Institute of Seychelles. Expanding education and awareness activities.
Nature Protection Trust of Seychelles (NPTS)	Species conservation projects, conservation management for IDC on Silhouette Island, biodiversity assessments. Publishes annual scientific journal and quarterly magazine on nature issues, with main focus on birds.
Nature Seychelles	National partner for BirdLife International. Primary objectives are to conserve, manage and educate the public about Seychelles biodiversity. Manages Cousin Island Special Reserve.
Plant Conservation Action Group (PCA)	Conservation of (endemic) plants and landscapes (forests), working with MENR in establishing legal framework in plant conservation.
Seychelles Islands Foundation (SIF)	Manages two World heritage sites in the Seychelles; Aldabra Atoll and Vallee de Mai.
Wildlife Clubs	Youth and children's environmental education, along with broader public education and awareness.
Other NGOs and community groups	
Liaison Unit for Non-Government Organizations (LUNGOS)	Offers centralised co-ordination and facilitator services to member NGOs.
Anse Royale Ecotourism pilot project	Community involvement in tourism
Business associations	
Seychelles Chamber of Commerce and Industry (SCCI)	SCCI is a coordination body for the private sector in Seychelles and represents its members in various fora
Seychelles Hotel and Tourism Association	Represents the concerns of its membership
Destination Management Centres (DMC's)	Mason's Travel, Creole Travel Services (new merger of Creole Holidays & TSS)
Fishing Boat owners' Association	Promotes issues of concern to local fishing boat owners
Professional Divers Association	Represents the local private diving enterprises
Apostolat de la Mer	Church-based group promoting fisherfolk welfare
Dive Shops/ Operators	Businesses promoting discovery of the underwater world
Nature Tour Guides	Business/ individuals promoting nature tours
Association for the Construction and Engineering Professionals of Seychelles (ACEPS)	Forum for promotion of the trade, standards of professional conduct, dissemination of information and assist in training of professionals and technicians
Hotels (with environmental or focus - selection)	
Banyan Tree Resort	5 star hotel collaborating with MCSS in turtle monitoring programme
Bird Island Lodge	Privately owned small hotel on the island with conservation activities
Cousine Island	Privately owned small resort with conservation activities
Denis Island	Privately owned small hotel with conservation activities
Fregate Island	Privately owned 5 star hotel with conservation and restoration activities
North Island	Privately owned (Wilderness safari Group) small 5 star hotel with conservation activities in collaboration with ICS and PCA
Silhouette Island	Hotel construction underway, with environmental advice from local NGO (in addition to MENR)

Stakeholder Participation Plan

6. The stakeholder participation plan begins with a description of the strengths and constraints in past efforts to involve stakeholders in environmental management endeavours in the Seychelles, showing how the project has responded. Part 2 elucidates how stakeholders will be involved in the implementation of each Project output.

Part 1: Table III.2. How the Project Will Address Strengths and Constraints

Strengths	How the Project Has Responded
The national environmental strategy for Seychelles, <i>Environment Management Plan Seychelles</i> (EMPS) 2000-2010 includes an aim “to develop human resources and promote partnerships and community involvement”. The EMPS Steering Committee, which oversees EMPS implementation, has over 40 diverse stakeholders from Government, parastatals, the private sector and NGOs.	The project is fully integrated with EMPS aims and strategies, including the one noted. Members of the EMPS Steering Committee are key stakeholders for this project, and specific members will be made aware of, consulted about, or directly participate in project activities.
Several NGOs are involved in environmental management through their own projects and campaigns and also participate in Government stakeholder consultations. They have a solid track record in protected areas, species conservation, ecotourism and environmental education.	The project has built on past NGO conservation successes by promoting dissemination of lessons learned and sharing of expertise, and ensuring that all key NGOs are actively involved. Much of the work will be awarded to NGOs through competitive bids.
Several private businesses, including private island owners and hotels, are directly involved in biodiversity conservation. Multi-stakeholder cooperation has also occurred through a range of collaborative conservation projects.	Since this is a “mainstreaming” project, several components are targeted directly to the private sector. The project also promotes sustainability of conservation projects via multi-stakeholder collaboration.
Constraints	How the Project Has Responded
The potential of NGOs, civil society and the private sector to participate in environmental and sustainable development initiatives appears to be under-utilised by Government, given their knowledge and interest in the issues, and their possible role in addressing those issues.	The project design has involved relevant stakeholders from all sectors, as they are needed to make each activity a success. It also seeks to refine the roles for each.
There is a lack of a sense of public “ownership” and responsibility for environmental decisions, because of the public perception that environment is largely a Government concern. This style of political culture is coupled with only minimal Government support and incentives for community involvement.	The project has several components that will promote community involvement in environmental management within land/water/coastal use planning, artisanal fisheries and tourism.
The “public interest” is usually represented in the media and during stakeholder consultations by NGOs; virtually no community-based organisations are involved .	See above. The project supports current initiatives to involve local communities/stakeholders, e.g., in fisheries, tourism and IAS
Small-scale producers and workers in production sectors of the economy, such as fishers and hotel workers are important to the success of the project. Yet they are not effectively organized into any unions, associations or other bodies through which they might be reached, or who could speak on their behalf.	The project will reach workers in production sectors in innovative ways, such as meeting with individuals, going to their workplaces, and promoting new associations, where appropriate.

Part 2: Planned Actions to Address Stakeholder Participation Objectives:

7. Table III.3 below presents the lead and participating stakeholders for each output of the Project, their proposed role, as well as the entities proposed for steering / guidance and technical & management support. This is largely based on the current mandates and capabilities of these institutions, as well as interest expressed feedback received during the diverse consultations. Wherever the PMU is listed as the lead implementing agency, the actual implementation will be done under competitively awarded contracts with ENGOs, private consultants and other civil society actors.

Table III.3. Roles, Responsibilities and Reporting

LFA Outcomes and Outputs	LEAD Implementing and participating Organizations	Roles (depending on specific activities which will be detailed in Annual Workplans)	Reporting / Steering * (Possible re-structuring & capacity building support to these Committees)	Technical & Management Support
Outcome 1: Systemic and institutional capacities for mainstreaming of biodiversity management within and across sectors are strengthened.				
Output 1.1: Information and knowledge management capacity for Biodiversity Mainstreaming is developed	LEAD: PMU & ENGOs/ civil society Participating: • MENR (Nature Conservation - NC) • SBS • ENGO's • MLUH / MENR (PPS);	<ul style="list-style-type: none"> • Develop and apply improved, common standards for biodiversity inventories, M&E, etc. • Synthesise biodiversity conservation priorities • Identify suitable land use categories for each priority site • House and maintain the metadatabase / clearing house mechanism • Identify and fill information gaps (biodiversity assessments for all Islands...) • Conduct a gap analysis of terrestrial and marine PA coverage • Improve the use of LIS/GIS 	<ul style="list-style-type: none"> • Project Steering Committee (PSC – is sub-committee from EMPS) • Environmental Information Systems Committee • SBS Board • Sub-Committee EMPS 	<ul style="list-style-type: none"> • <i>International NGO's: Nature Conservancy, WWF, CI, IUCN, RSPB?</i> • International Research Org. (WIOMSA, Universities, etc.) • Contracted technical advice (national / international)
Output 1.3 : Land, Water and Coastal Use Plans integrating biodiversity priorities developed and implemented for all Islands	<ul style="list-style-type: none"> • LEAD (AG Office) • Bar Association • LEAD: MLUH Participating: • DOE • DONR • IDC • SFA	<ul style="list-style-type: none"> • Prepare and enact the legislation; • Report • Update and harmonize the Town and Country Planning Act, through a participatory process • Update and harmonize the Environmental Protection Act and other legislation (EIA regulations) as needed for a strong base for land use planning • Develop a new national land use policy integration of 	<ul style="list-style-type: none"> • PSC • Planning Authority; • Legal Review Committee (MENR); • EMPS SC (Sub-Committee) 	<ul style="list-style-type: none"> • UNDP; UNEP; • International NGO's • Contracted technical advice (national / international)

LFA Outcomes and Outputs	LEAD Implementing and participating Organizations	Roles (depending on specific activities which will be detailed in Annual Workplans)	Reporting / Steering * (Possible re-structuring & capacity building support to these Committees)	Technical & Management Support
	<ul style="list-style-type: none"> • SCMRT-MPA • ENGO's 	<ul style="list-style-type: none"> • biodiversity conservation; • Develop Land Water Coastal (LWC) use plans that integrate biodiversity conservation priorities; • Prepare participatory LWC use and sustainable development plan for Outer Islands 		
Output 1.3: Stakeholders are engaged in mainstreaming Biodiversity	LEAD: PMU; Participating: ENGO's LUNGOS SCCI Private Sector	<ul style="list-style-type: none"> • Conduct annual adaptive management reviews led by stakeholders from outside of Government; • Establish a stakeholder forum on biodiversity emphasizing use sound science; • Strengthen skills of mid and senior managers for good environmental governance, e.g. strategic planning, policy development and stakeholder involvement; • Strengthen institutional capacities for management training and human resource development. • Strengthen capacities of NGOs / civil society, e.g. on PA management and design and delivering targeted public awareness and education campaigns on biodiversity issues 	PSC; EMPS Steering Committee	<ul style="list-style-type: none"> • UNDP; UNEP; International NGO's • Contracted technical advice (national / international)
Outcome 2: Methods and means for integrating biodiversity conservation and artisanal fisheries management are in place.				
Output 2.1: Pilot co-management systems are developed for near-shore fisheries	LEAD: SFA Participating: Fisher Boat Owners Association (FBOA) Fishers Associations; MENR (Fisheries Policy Unit) ENGO's SCMRT-MPA,	<ul style="list-style-type: none"> • Facilitate the development of organizations to represent fishers in pilot near-shore management areas; • Develop collaborative management systems with fishers' associations in different fisheries 	PSC; SFA Board; Fishers' Associations EMSP SC (Sub-Committee)	WIOMSA UNEP, UNDP, Contracted technical advice (national / international)

LFA Outcomes and Outputs	LEAD Implementing and participating Organizations	Roles (depending on specific activities which will be detailed in Annual Workplans)	Reporting / Steering * (Possible re-structuring & capacity building support to these Committees)	Technical & Management Support
Output 2.2 : Capacity to replicate and adapt the piloted management systems is developed and applied to new areas.	LEAD: SFA, Participating: FBOA Fishers Associations; MENR (Fisheries Policy Unit) ENGO's SCMRT-MPA, MENR (Marine Unit)	<ul style="list-style-type: none"> • Develop guidelines for collaborative management systems for near-shore fisheries; • Adapt and replicate the pilot management system to new sites. 	PSC; SFA Board; Fishers' Associations EMSP SC (Sub-Committee)	WIOMSA , UNEP, UNDP, Contracted technical advice (national / international)
Outcome 3 : The tourism industry is addressing biodiversity conservation as part of good practice in business operations.				
Output 3.1: A tourism sustainability label and Environmental Management Systems will be adopted by tourism operators	LEAD: STB Participating: DOTT SBS SIB SCCI SHTA Private Hotels ENGO's	<ul style="list-style-type: none"> • Analyze eco-certification systems and develop where viable; • Promote environmental management systems (EMS); • Prepare guidelines for new investors and developers. • Develop a clearing house mechanism for tourism operators on environmentally sound technologies and practices accompanied by information on costs and benefits • Strengthen a system of awards and public recognition for outstanding tourism operators and corporate and individual sponsors 	<ul style="list-style-type: none"> • PSC • STB Board • Tourism Advisory Committee (TAC); • SBS Board • EMPS SC (Sub-committee) 	ISO, UNWTO; Int. NGO's: WWF, IC, IUCN; Contracted technical advice (national / international)
Output 3.2: Incentives and sustainable financing mechanisms for mainstreaming biodiversity management in the tourism sector in place.	LEAD: MEPE, SHTA Participating: Ministry of Finance STB MENR SIB SCCI Private Hotels Divers ssoiation ENGO's	<ul style="list-style-type: none"> • Analyze the current incentive and disincentive structure in the tourism sector • Analyze the sustainable financing needs for mainstreaming biodiversity. • Identify incentives for mainstreaming biodiversity. • Install incentives • Monitor incentives 	<ul style="list-style-type: none"> • PSC • STB Board • Tourism Advisory Committee (TAC); • SBS Board • EMPS SC (Sub-committee) 	UNWTO; Int. NGO's: WWF, IC, IUCN; Contracted technical advice (national / international)

LFA Outcomes and Outputs	LEAD Implementing and participating Organizations	Roles (depending on specific activities which will be detailed in Annual Workplans)	Reporting / Steering * (Possible re-structuring & capacity building support to these Committees)	Technical & Management Support
Output 3.3: Joint management systems involving tourism operators developed for biodiversity conservation in ecological sensitive areas	LEAD: STB Participating: MENR (Forestry & National Parks.) DOTT ENGO's SHTA SCMRT-MPA DLG DA's SIB	<ul style="list-style-type: none"> • Identify, promote and support the pilot implementation of financially viable opportunities for private sector investment in PA management or other conservation activities; • Develop criteria, conditions of lease and monitoring/super-vision system for joint management • Develop guidelines for joint management, with roles of each party clearly defined. • Identify sites and implement co-management 	PSC STB Board Tourism Advisory Committee (TAC); National Parks Committee EMPS SC (Sub-committee)	Int. NGO's: WWF, CI, IUCN; UNWTO Contracted technical advice (national / international)

Annex IV: Monitoring & Evaluation Plan

Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and the UNDP Country Office (UNDP-CO) with support from UNDP/GEF. The Logical Framework Matrix in Part VI provides *performance* and *impact* indicators for project implementation along with their corresponding *means of verification*. These will form the basis on which the project's Monitoring and Evaluation system will be built.

1. Monitoring and Reporting

1.1. Project Inception Phase

A Project Inception Workshop will be conducted with the full project team, relevant Government, private sector and civil society counterparts, co-financing partners, the UNDP-CO and representation from the UNDP-GEF Regional Coordinating Unit as appropriate. A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goals and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the project's logframe matrix.

The key objectives of the Inception Workshop are to:

- (i) review the logframe (indicators, means of verification, assumptions), imparting additional detail as needed;
- (ii) finalize the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the Project;
- (iii) develop specific targets for the first year implementation progress indicators;
- (iv) introduce Project staff with the representatives of the UNDP Country Office and the Regional Coordinating Unit (RCU);
- (v) detail the roles, support services and complementary responsibilities of UNDP-CO and RCU staff vis à vis the Project team;
- (vi) provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the annual Project Implementation Reviews (PIRs) and related documentation, the Annual Project Report (APR), Tripartite Review Meetings, as well as mid-term and final evaluations;
- (vii) inform the Project team on UNDP Project related budgetary planning, budget reviews, and mandatory budget rephasings;
- (viii) present the ToR for Project staff and decision-making structures in order to clarify each party's roles, functions, and responsibilities, including reporting and communication lines, and conflict resolution mechanisms;

The inception workshop will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff and decision-making structures will be discussed again, as needed, in order to clarify for all, each party's responsibilities during the project's implementation phase.

1.2. Monitoring responsibilities and events

A detailed schedule of project review meetings will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Tripartite Reviews, Steering Committee Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project related Monitoring and Evaluation activities.

Day to day monitoring of implementation progress will be the responsibility of the Programme Coordinator, based on the project's Annual Work Plan and its indicators. The Programme Coordinator will inform the

UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

The Programme Coordinator will fine-tune the progress and performance/impact indicators of the project in consultation with the full project team at the Inception Workshop with support from UNDP-CO and assisted by the UNDP-GEF Regional Coordinating Unit. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at this Workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the Annual Work Plan. The local implementing agencies will also take part in the Inception Workshop in which a common vision of overall project goals will be established. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

Measurement of impact indicators related to global benefits will occur according to the schedules defined in the Inception Workshop and tentatively outlined in the indicative Impact Measurement Template. The measurement of these will be undertaken through subcontracts or retainers with relevant institutions (e.g. populations of key species through inventories), or through specific studies that are to form part of the projects activities (e.g. surveys for capacity building efforts), or periodic sampling.

Periodic monitoring of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the project proponent, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

UNDP Country Offices and UNDP-GEF RCUs as appropriate, will conduct yearly visits to project field sites, or more often based on an agreed upon schedule to be detailed in the project's Inception Report / Annual Work Plan to assess first hand project progress. Any other member of the Steering Committee can also accompany, as decided by the SC. A Field Visit Report will be prepared by the CO and circulated no less than one month after the visit to the project team, all SC members, and UNDP-GEF.

Annual Monitoring will occur through the ***Tripartite Review (TPR)***. The TPR will be composed of representatives of GOS, other implementing partners (private sector / civil society), UNDP-CO/UNDP GEF RCU and the Project. This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to Tripartite Review (TPR) at least once every year. The first such meeting will be held within the first twelve months of the start of full implementation. The project proponent will prepare an Annual Project Report and submit it to UNDP-CO and the UNDP-GEF regional office at least two weeks prior to the TPR for review and comments.

The Annual Project Report will be used as one of the basic documents for discussions in the TPR meeting. The project proponent will present the Annual Project Report to the TPR, highlighting policy issues and recommendations for the decision of the TPR participants. The project proponent also informs the participants of any agreement reached by stakeholders during the Annual Project Report preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary.

The TPR has the authority to suspend disbursement if project performance benchmarks are not met, based on delivery rates, and qualitative assessments of achievements of outputs. Benchmarks will be developed at the Inception Workshop.

Terminal Tripartite Review (TTR)

The Terminal Tripartite Review is held in the last month of project operations. The project proponent is responsible for preparing the Terminal Report and submitting it to UNDP-CO and the GEF Regional Coordinating Unit. It shall be prepared in draft at least two months in advance of the TTR in order to allow review, and will serve as the basis for discussions in the TTR. The terminal tripartite review considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its

stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects under implementation or formulation.

1.3. Project Monitoring Reporting

The Programme Coordinator in conjunction with the UNDP-GEF extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process. Items (a) through (f) are mandatory and strictly related to monitoring, while (g) through (h) have a broader function and the frequency and nature is project specific to be defined throughout implementation.

(a) Inception Report (IR)

A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed First Year Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan would include the dates of specific field visits, support missions from the UNDP-CO or the Regional Coordinating Unit (RCU) or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months timeframe.

The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may effect project implementation.

When finalized the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the IR, the UNDP Country Office and UNDP-GEF's Regional Coordinating Unit will review the document.

(b) Annual Project Report (APR)

The APR is a UNDP requirement and part of UNDP's Country Office central oversight, monitoring and project management. It is a self-assessment report by project management to the CO and provides input to the country office reporting process and the ROAR, as well as forming a key input to the Tripartite Project Review. An APR will be prepared on an annual basis prior to the Tripartite Project Review, to reflect progress achieved in meeting the project's Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work.

The format of the APR is flexible but should include the following:

- An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome
- The constraints experienced in the progress towards results and the reasons for these
- The three (at most) major constraints to achievement of results
- AWP, CAE and other expenditure reports (ERP generated)
- Lessons learned
- Clear recommendations for future orientation in addressing key problems in lack of progress

(c) Project Implementation Review (PIR)

The PIR is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects. Once the project has been under implementation for a year, a Project Implementation Report must be

completed by the CO together with the project. The PIR can be prepared any time during the year (July-June) and ideally prior to the TPR. The PIR should then be discussed in the TPR so that the result would be a PIR that has been agreed upon by the project, the executing agency, UNDP CO and the concerned RC.

The individual PIRs are collected, reviewed and analysed by the RCs prior to sending them to the focal area clusters at the UNDP/GEF headquarters. The focal area clusters supported by the UNDP/GEF M&E Unit analyse the PIRs by focal area, theme and region for common issues/results and lessons. The TAs and PTAs play a key role in this consolidating analysis.

The focal area PIRs are then discussed in the GEF Interagency Focal Area Task Forces in or around November each year and consolidated reports by focal area are collated by the GEF Independent M&E Unit based on the Task Force findings.

The GEF M&E Unit provides the scope and content of the PIR. In light of the similarities of both APR and PIR, UNDP/GEF has prepared a harmonized format for reference.

(d) Quarterly Progress Reports

Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF regional office by the project team. See format attached.

(e) Periodic Thematic Reports

As and when called for by UNDP, UNDP-GEF or the Implementing Partner, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learnt exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNDP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

(f) Project Terminal Report

During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met, or not achieved, structures and systems implemented, etc. and will be the definitive statement of the Project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the Project's activities.

(g) Technical Reports (project specific- optional)

Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. Technical Reports may also be prepared by external consultants and should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels.

(h) Project Publications (project specific- optional)

Project Publications will form a key method of crystallizing and disseminating the results and achievements of the Project. These publications may be scientific or informational texts on the activities and achievements of

the Project, in the form of journal articles, multimedia publications, etc. These publications can be based on Technical Reports, depending upon the relevance, scientific worth, etc. of these Reports, or may be summaries or compilations of a series of Technical Reports and other research. The project team will determine if any of the Technical Reports merit formal publication, and will also (in consultation with UNDP, the Government and other relevant stakeholder groups) plan and produce these Publications in a consistent and recognizable format. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget.

2. Independent Evaluation

The project will be subjected to at least two independent external evaluations as follows:

(i) Mid-term Evaluation

An independent Mid-Term Evaluation will be undertaken at the mid-point of implementation. The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

(ii) Final Evaluation

An independent Final Evaluation will take place three months prior to the Terminal Tripartite Review meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

TABLE IV-1: MONITORING AND EVALUATION WORK PLAN

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team Staff time</i>	Time frame
Inception Workshop	<ul style="list-style-type: none"> ▪ Programme Coordinator ▪ UNDP CO ▪ UNDP GEF 	\$2000	Within first two months of project start up
Inception Report	<ul style="list-style-type: none"> ▪ Project Team ▪ UNDP CO 	None	Immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	<ul style="list-style-type: none"> ▪ Programme Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members 	To be finalized in Inception Phase and Workshop. Indicative cost \$8000	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	<ul style="list-style-type: none"> ▪ Oversight by Programme Coordinator and Project Manager; ▪ Measurements by implementing entities (contracts) 	To be determined as part of the Annual Work Plan's preparation. Indicative cost \$6000	Annually prior to APR/PIR and to the definition of annual work plans
APR and PIR	<ul style="list-style-type: none"> ▪ Project Team ▪ UNDP-CO ▪ UNDP-GEF 	None	Annually
TPR and TPR report	<ul style="list-style-type: none"> ▪ Government Counterparts 	None	Every year, upon

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team Staff time</i>	Time frame
	<ul style="list-style-type: none"> ▪ UNDP CO ▪ Project team ▪ UNDP-GEF Regional Coordinating Unit 		receipt of APR
Steering Committee Meetings	<ul style="list-style-type: none"> ▪ Programme Coordinator ▪ Chair Steering Committee ▪ UNDP CO 	None	Following Project IW and subsequently at least once a year
Periodic status reports	<ul style="list-style-type: none"> ▪ Project team 	5,000	To be determined by Project team and UNDP CO
Technical reports	<ul style="list-style-type: none"> ▪ Project team ▪ Hired consultants as needed 	15,000	To be determined by Project Team and UNDP-CO
Mid-term External Evaluation	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP- CO ▪ UNDP-GEF Regional Coordinating Unit ▪ External Consultants (i.e. evaluation team) 	50,000	At the mid-point of project implementation.
Final External Evaluation	<ul style="list-style-type: none"> ▪ Project team, ▪ UNDP-CO ▪ UNDP-GEF Regional Coordinating Unit ▪ External Consultants (i.e. evaluation team) 	60,000	At the end of project implementation
Terminal Report	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP-CO ▪ External Consultant 	None	At least one month before the end of the project
Lessons learned	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP-GEF Regional Coordinating Unit (suggested formats for documenting best practices, etc) 	18,000 (average 3,000 per year)	Yearly
Audit	<ul style="list-style-type: none"> ▪ UNDP-CO ▪ Project team 	12,000 (average \$2000 per year)	Yearly
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	<ul style="list-style-type: none"> ▪ UNDP Country Office ▪ UNDP-GEF Regional Coordinating Unit (as appropriate) ▪ Government representatives 	20,000 (average one visit per year)	Yearly
TOTAL INDICATIVE COST <i>Excluding project team staff time and UNDP staff and travel expenses</i>		US\$ 286,000	

TABLE IV-2: JUSTIFICATION FOR THE SELECTION OF INDICATORS

Project Strategy	Indicator	Justification for the Choice of Indicator
<p>Project Objective: Biodiversity conservation is integrated into key production sectors of the economy.</p>	<ul style="list-style-type: none"> • Area of terrestrial and marine ecosystems under improved management or heightened conservation status. • Increase in investments from production sectors in collaborative conservation management models 	<p>This indicator captures primarily the participatory adaptive co-management systems for artisanal fisheries and tourism that will be put in place by the project. It will cover the two main artisanal fisheries (demersal line and trap fisheries) that employ over ¾ of all artisanal fishermen and that cover the main fisheries resources whose exploitation have significant impacts on biodiversity. Terrestrial ecosystems are included but cover relatively minor areas compared to marine areas.</p> <p>The level of private sector investments in biodiversity mainstreaming is considered to be one of the best indicators of success of the mainstreaming strategy.</p>
<p>Outcome 1: Systemic and institutional capacities for mainstreaming biodiversity management within and across sectors are strengthened.</p>	<ul style="list-style-type: none"> • New legislation is enacted for land use planning • % of geographic BD conservation priorities whose zoning status has been revised as needed as part of the land use planning process • % of country covered under LWC use plans that have been approved by government 	<p>Effective land use planning is dependent on passage of new legislation. Government has committed to the passage of new legislation. This is an indicator of the fulfilment of that government commitment.</p> <p>The GEF increment for land use planning is for the integration of biodiversity conservation priorities into land use planning. This is a direct indicator of the effectiveness of GEF incremental investments.</p> <p>Seychelles has produced land use plans. To date, however, no land use plans have been approved by government and have, therefore, no statutory value. This is an indicator that new land use plans will “have teeth”.</p>
<p>Outcome 2: Methods and means for integrating biodiversity and artisanal fisheries management are in place.</p>	<ul style="list-style-type: none"> • Area for which fisheries co-management plans exist • Catch per Unit Effort (CPUE) • Spawning Stock Biomass (SSB) 	<p>If the two major artisanal fisheries (trap and demersal line fisheries) can be brought under adaptive, co-management systems, all of the other, relatively minor artisanal fisheries should follow relatively easily.</p> <p>The CPUE an indicator for the “health” of the targeted fish stocks, and is directly related to the economic benefits for fishers. A declining CPUE signifies declining stocks (which is the present situation for most fisheries). It is targeted to attain a stable CPUE (measured as a trend over time) at mid-term and an increasing CPUE for key species at end of the project.</p> <p>The spawning stock biomass of certain key species is declining, and is for many targeted species below 20% of unexploited levels (i.e. >80% of unexploited stock biomass is removed), which is critical and may cause stock collapse. This will have its subsequent effects down the trophic levels, which will negatively influence the habitats / ecosystems, including negative effects on coral assemblages. The aim is to reverse this trend and to set a precautionary SSB target of >30% of unexploited levels at the end of project.</p>
<p>Outcome 3:</p>	<ul style="list-style-type: none"> • Additional hectares of 	<p>Government resources for protection of these areas is</p>

t Strategy	Indicator	Justification for the Choice of Indicator
<p>The tourism industry is addressing biodiversity conservation as part of good practice in business operations.</p>	<p>ecologically sensitive habitats for which joint conservation management plans with tourism operators exist.</p> <ul style="list-style-type: none"> • % of tourism operators that complete qualifications and receive the sustainable tourism label. 	<p>declining and are at risk. Private sector investments in management of these areas will be part of the cost of doing business and will be sustained out of profits to be realised by these investors. The ecologically sensitive include the highest priority sites for biodiversity conservation. Proper management plans spelling out the biodiversity concerns and priorities, and the measures put in place to conserve these priority areas are required.</p> <p>The effectiveness of the new labelling system is dependent upon its adoption by tourism operators.</p>

Annex V: Roles and Responsibilities of Government For Conservation

Institutions	Roles/Responsibilities	Policy	Legislation
Ministry of Environment & Natural Resources (MENR): Department. of Environment (DOE).	Government agency responsible for environment including biodiversity, physical environment, EIA, pollution control, solid waste management, water resources and land and marine resources	<ul style="list-style-type: none"> • Environment Management Plan of Seychelles (EMPS) 2000-2010 • NBSAP • Forestry Management Plan • Forest Policy 	<ul style="list-style-type: none"> • Breadfruit and Other Trees (Protection) Act, 1917 • Birds' Egg Act, 1933, Birds' Eggs and Birds' Egg Products (Exportation) Regulations, Birds' Eggs (Collection) Regulations • Coco-de-Mer (Management) Decree, 1978 • Environmental Protection Act, 1994 including Environmental Impact Assessment) Regulations, SI 36 of 2000 • Forest Reserves Act, 1955 • Lighting of Fires (Restriction) Act, 1940 • National Parks and Nature Conservancy Act, 1969 • <i>PUC Act 1986</i> • State Land and River Reserves Act, • Wild Animals and Birds Protection Act as amended by WA&B(P) Act, 2000
MENR: Department of Natural Resources	Responsible for agriculture and fisheries	<ul style="list-style-type: none"> • Proposed National Agricultural Policy 2003-2013 • National Fisheries Policy 2003-2013 	<ul style="list-style-type: none"> • Animal (Diseases and Imports) Act, 1981 • Pesticide Control Act, 1996 (side effects of pesticides on ecosystems) • Plant Protection Act, 1996
Marine Parks Authority (MPA) / Seychelles Centre for Marine Research and Technology (SCMRT)	Authority responsible for marine parks, the promotion and facilitation of marine research and the application of appropriate marine technologies. MENR is the parent ministry	<ul style="list-style-type: none"> • EMPS 2000-2010 • NBSAP 	<ul style="list-style-type: none"> • Environment Protection (Marine Parks Authority) Regulations
Public Utilities Corporation (PUC)	Responsible for supply of water and electricity to the country's consumers. Divided into two divisions - Water and Electricity. MENR is the parent Ministry.		<ul style="list-style-type: none"> • State Land and River Reserves Act,
Ministry of Land Use and Habitat: MLUH	Responsible for land use planning and development including certain natural resources such as sand and gravel extraction, quarrying etc. Also chairs the Planning Authority; responsible for approving land use plans	<ul style="list-style-type: none"> • Plan D'aménagement du Territoire • District Development Plans 	<ul style="list-style-type: none"> • Land Reclamation Act, 1967 • Removal of Sand and Gravel Act, 1982 • State Land and River Reserves Act, 1903 • Town and Country Planning Act, 1972

Department of Local Government	Promotes social and economic well-being in local communities via District Administrators Parent ministry is the Ministry of Local Government, Culture and Sport (MLGCS)	<ul style="list-style-type: none"> • EMPS 2000-2010 	
Department of Finance (under President's Office)	Portfolio for national laws and regulations on taxes etc and final arbiter of Government annual budgets. Parent ministry is the Ministry of Finance.	<ul style="list-style-type: none"> • Yearly National Budgets 	<ul style="list-style-type: none"> • Tax laws, etc. • Budget Appropriation Act
Ministry of Economic Planning and Employment (MEPE)	Responsible for all matters relating to macro-economic development, including development and coordination of industry promotion, policy and legislation, as well as employment.	<ul style="list-style-type: none"> • Macro Economic Reform Plan • Yearly National Budgets 	
Department. of Tourism (under President's Office)	Responsible for tourism policy and certification	<ul style="list-style-type: none"> • Vision 2010 (2001-2010) • Ecotourism Strategy (SETS 21, 2003) 	<ul style="list-style-type: none"> • Beach Control Act, 1971 • Seychelles Tourism Board Act, 1981 • Tourism Incentives Act 2003
Seychelles Tourism Board (STB)	Multi-sectoral parastatal in the tourism industry mandated to promote the development and marketing of local tourism	<ul style="list-style-type: none"> • Vision 2010 (2001-2010) • Ecotourism Strategy (SETS 21, 2003) 	
Seychelles Fisheries Authority	Parastatal authority responsible for management of renewable marine resources	<ul style="list-style-type: none"> • Fisheries Policy 2003-2013 	<ul style="list-style-type: none"> • Fisheries Act, 1987 ;
Seychelles Islands Foundation	Management of the Vallée de Mai & Aldabra World Heritage Sites	<ul style="list-style-type: none"> • UNESCO World Heritage Convention 	<ul style="list-style-type: none"> • SIF Foundation Decree, 1979
Island Development Corporation	Mandate to manage the Outer Islands + Silhouette		
Seychelles Investment Bureau	Promote and facilitate investment in Seychelles		<ul style="list-style-type: none"> • Tourism, Fisheries, Agriculture Incentive Acts, 2005

ANNEX VI: TERMS OF REFERENCES

1. PROGRAMME COORDINATOR:

Context and Background:

The Programme Coordinator will be responsible for the coordination of the UNDP-GEF portfolio of projects in Seychelles, including the “Mainstreaming Biodiversity into Production Sector Activities” Project. The Programme Coordinator will head the Programme Coordination Unit, designed to coordinate all UNDP-GEF Projects. The Programme Coordinator will supervise the National Project Managers, administration & accounts and support staff, reports to the Project Director and the UNDP Country Office, and formally submits reports, budgets and plans to the Project Steering Committee for final approval.

Duties and Responsibilities:

- Ensure effective project implementation in line with the Project Documents;
- Delivery and disbursement of UNDP-GEF funds, in order to achieve the stated Projects’ Outputs and Outcomes;
- Responsible for all projects’ workplans and budgets;
- Overall responsibility to oversee, coordinate and supervise all UNDP-GEF projects / national project managers;
- Supervise Programme Coordination Unit administrative and support staff;
- Responsible for all administrative duties;
- Ensure UNDP/GEF manuals and procedures and financial rules and regulations are followed;
- Responsible for all required progress, technical and financial reporting (to Steering Committee, UNDP);
- Prepares tenders for procurements of inputs and services, and evaluates and recommends on bids (to Project Steering Committee);
- Adhere to all donor requirements;
- Seek and evaluate funding opportunities in environment with UNDP, GEF and/or other donors.
- Provide strategic guidance to the Project Steering Committees, including EMPS;
- Monitor other regional and national environmental projects (GEF or non-GEF), and streamline the UNDP-GEF Projects’ activities with these initiatives.
- Perform any other duty relevant to the assignment

Qualifications:

Minimum MA or MSc in Natural Resources Management or equivalent, with particular background in one or more of the following: Biodiversity Conservation; Sustainable Land Management; Climate Change Adaptation. Degree in Business or Public Administration preferred. Certified PRINCE-II Management preferred, and experience with UN ATLAS accounting system an advantage.

Professional Experience:

- Minimum 10 years experience in national and international natural resources projects in multi-stakeholder settings, in particular concerning Biodiversity Conservation, Sustainable Land Management and/or Climate Change Adaptation, of which 5 years as project manager / team leader,
- Experience in SIDS preferred.
- Experience with participatory approaches.
- Prior UNDP National Execution experience an asset.
- Prior UNDP/GEF project experience and knowledge of UNDP and GEF procedures and guidelines an advantage.

Skills:

- Very experienced (donor funded) project manager;
- Leadership skills;
- Team player;
- Diplomatic and negotiation skills;
- Sensitive to government ↔ civil society interactions
- Advanced reporting skills
- Strong managerial and administrative background, especially in accounting, procurement, disbursement, monitoring & evaluation;
- Conversant and at pace with funding opportunities;
- Trouble shooter and problem solver;
- Pro-active, adaptive management skills
- Strong economics / financial background;
- Project identification and development skills
- Ability to establish priorities and to plan and coordinate work;
- Ability to effectively coordinate a multi-stakeholder project;
- Excellent communication skills;
- Ability to lead, manage and motivate teams of international & local consultants and other stakeholders to achieve results
- Committed to and diligently working towards achieving results for sustainable change.
- Fully Computer literate

Languages:

Fluency in English and knowledge of French and Creole an asset.

2. NATIONAL PROJECT MANAGER

Context and Background:

The national Project Manager will be responsible for the day-to-day management of the UNDP-GEF “*Mainstreaming Biodiversity Management into Production Activities Project*” in Seychelles. This Project is part of a portfolio of UNDP-GEF projects in Seychelles, which will be coordinated by a UNDP Programme Coordination Unit, headed by a Programme Coordinator. The National Project Manager will report to the UNDP-GEF Programme Coordinator. The administrative matters surrounding the project will be facilitated by the Programme Coordination Unit (accounts and administrative section). This will include procurement of inputs and services as well as financial reporting. The Project will be guided by a Project Steering Committee.

Duties and Responsibilities

- Ensure overall daily management of the project, according to the Project Document;
- Supervise and co-ordinate project activities, in line with project outputs and outcomes, and in close collaboration with stakeholders.
- Prepare technical and progress reports and submit timely to Programme Coordinator.
- Prepare workplans and budgets for timely submission to Programme Coordinator, and assist in budget planning and control.
- Certify accounts statements prepared by the accounts section, for onwards submission to Programme Coordinator;
- Assist Programme Coordination Unit in mobilizing all project inputs in accordance with UNDP procedures;
- Draft TORs for the consultants and sub-contractors;
- Supervise and coordinate the work of project consultants and sub-contractors;
- Implement Monitory and Evaluation activities according to work plan and project Document.
- Oversee the exchange and sharing of experiences and lessons learned with relevant conservation and development projects nationally and internationally.

- Undertaking any other activities that may be assigned by the Programme Coordination Unit or the Steering Committee.

Qualifications:

Minimum BA or BSc in Natural Resources Management or equivalent, with particular background in biodiversity conservation.

Experience:

- Minimum 5 years experience, of which 2 years as project manager, in Natural Resources projects with particular relevance to Biodiversity Conservation.
- Experience in production sectors, especially in artisanal fisheries and/or tourism.
- Experience with multi-stakeholder participatory approaches.
- Experience with donor funded projects
- Prior UNDP-GEF project experience an advantage.

Skills:

- Professionalism – skills that indicate capability to analyze and organize different tasks; Capacities for strategic thinking and planning.
- Planning, coordinating and organizing – Ability to establish priorities and to plan and coordinate work; ability to effectively coordinate a multi-stakeholder project;
- Communications - Excellent communication skills and effective interpersonal and negotiation skills, proven through successful interactions with all levels of stakeholder groups, including senior government officials, business executives, farmers and communities;
- Teamwork and respect for diversity – Ability to lead, manage and motivate teams of international and local consultants and other stakeholders to achieve results
- Commitment and diligence – Committed to and diligently working towards achieving results for sustainable change.
- Knowledge of UNDP-GEF project implementation procedures, including procurement, disbursements, and reporting and monitoring would be an advantage.
- Fully Computer literate

Language:

Fluency in English and knowledge of French and Creole an asset.

3. PROJECT STEERING COMMITTEE (PSC) FOR THE BIODIVERSITY THEMATIC AREA UNDER UNDP-GEF

Context and Background:

The Project Steering Committee (PSC) will provide high-level policy guidance and orientation to the UNDP-GEF projects under the Biodiversity Thematic Area, i.e. the “Mainstreaming Biodiversity into Production Sector Activities” and the “Prevention and Control of Introduction and Spread of Invasive Alien Species” Full Sized Projects. The Steering Committee will be composed of the principal stakeholders and decision-makers, ensuring a balanced and effective composition. All the necessary preparations for its effective functioning (preparation of Workplans, Budgets, Progress Reports, etc.) will be handled by the Programme Coordinator, as secretary of the Steering Committee. The Steering Committee also has a budget which it can use to commission technical studies and Monitoring & Evaluation activities.

Composition

The Department of Environment will chair the PSC, and the UNDP-GEF Programme Coordinator will serve as Secretary. Another 9 voting members were selected from different stakeholders, proposed by Government and UNDP, nominated by the EMPS Steering Committee and vetted by UNDP-GOS. There will be 6

“observers”, who will attend meetings and deliberations but will not have decision powers. Other members may be co-opted for regular or extra-ordinary meetings/sessions, according to the need. The preferred mode of reaching a decision within the Committee is by consensus. When a potential conflict of interest may arise, e.g. in the evaluation of tenders, the parties involved in bidding need to opt out of the decision making regarding the tender process. Members of the Steering Committee will be remunerated as per sitting (from GOS budget).

The Biodiversity Steering Committee consists of representatives of:

1. Department of Environment, Ministry of Environment, MENR (Chair)
2. Department of Land Use, Ministry of Land Use and Habitat
3. Department of Natural Resources
4. Fishers’ organization
5. Seychelles Hospitality and Tourism Association (SHTA)
6. Seychelles Fishing Authority
7. Seychelles Tourism Board
8. ENGO-1
9. ENGO-2
10. UNDP-GEF Programme Coordinator (Secretary)

The following members are Observers

11. Seychelles Chamber of Commerce and Industries (SCCI)
12. UNDP Country Office
13. LUNGOS
14. Ministry of Foreign Affairs and International Cooperation
15. ENGO-3 (alternate to ENGO-1 member)
16. ENGO-4 (alternate to ENGO-2 member)

Tasks / duties:

The Steering Committee will meet quarterly to:

- a. Provide high level orientation and guidance for the project (institutional, political and operational)
- b. Ensure that the project develops in accordance within the agreed framework (Project Document, Annual Workplans) and achieves its targets (outputs, outcomes and objectives).
- c. Approve annual progress reports, workplans and budgets;
- d. Approve TORs for Consultants and (sub-)Committees;
- e. Nominate 2 – 3 members from the Steering Committee to sit on a Tender Evaluation Committee for major tenders (together with UNDP-GEF Programme Coordinator and UNDP Country Programme Officer);
- f. Endorse the recommendation of the Tender Evaluation Committee;
- g. Perform Monitoring & Evaluation of the Project;
- h. Ensure collaboration between implementing institutions.
- i. Pay special attention to the sustainability of activities developed by the project.
- j. Ensure the integration and coordination of project activities with other related government and donor-funded initiatives.
- k. Report periodically to EMPS Steering Committee.

4. NATIONAL PROJECT DIRECTOR

Context and Background:

The overall National Project Director will be a part-time function and generally be responsible for the conduit and liaison between the UNDP-GEF Programme Coordination Unit and all relevant Government departments. The National Project Director will not be based in the Programme Coordination Unit. The Project Director

will facilitate and assist with government administrative procedures, be responsible for smooth disbursement of funds, as well as accounting of the government portion (cash counterpart fund) of the projects.

Duties and Responsibilities

- Responsible for liaison between the PCU and government.
- Inform and discuss with the UNDP-GEF Programme Coordinator issues of relevance for the coordination, management and implementation of projects.
- Assist in government administrative procedures and procurements.
- Ensure smooth disbursement of funds.
- Responsible for government counterpart fund accounting.

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• Birds Eggs Act 1933	• National Parks and Nature Conservancy Act 1969
• Birds Eggs and Products (Quota) Proclamation 1941	• Pesticide Control Act 1996
• Bird Eggs and Birds Eggs Products (Exportation) Regulations 1971	• Plant Protection Act 1996
• Birds Eggs (Collection) Regulations 1972	• Public Utilities Act 1979
• Breadfruit and Other Trees (Protection) Act 1917	• Removal of Sand and Gravel Act 1982
• Coastal Reserves and Foreshore Leases Act 1903	• SIF Foundation Decree 1979
• Coco de Mer (Management) Decree, 1978	• State Land and River Reserves Act 1903
• Environment Protection Act 1994	• Town and Country Planning Act 1972
• Environment Protection (Impact Assessment) Regulations, 1996	• Wild Animals and Birds Protection Act 1961 as amended by Act 9 of 2001
• EP (Marine Parks Authority) Regulations, 1996	• Wild Birds Protection Regulation 1966 as amended 1968, 1999
• Fisheries Act 1986	• Wild Animals (Seychelles Pond Turtle) Protective Regulations 1966
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• Forest Reserves Act 1955	• Wild Animals (Turtles) Protection Regulations (1994)
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SIGNATURE PAGE

Country: Seychelles

Expected Output(s)/Indicator(s): The project will integrate biodiversity conservation objectives into key production sectors of the economy by: a) strengthening systemic and institutional capacities for mainstreaming biodiversity management; b) developing methods and means for integrating biodiversity into artisanal fisheries management; and c) making biodiversity conservation a routine part of business operations in the tourism sector.

Country Programme Outcome(s): Functional Integrity of terrestrial and coastal ecosystem is secured, providing a base for sustainable development

Implementing partner: Ministry of Environment and Natural Resources

Other Partners: UNDP, Ministry of Land Use and Habitat, Seychelles Tourism Board, Seychelles Fishing Authority, NGOs, Hotel & Tourism Association, Fishers Association.

<p>Programme Period: 2007-2010 Programme Component: Energy and Environment for Sustainable Development Project Title: Mainstreaming Biodiversity Management into Production Sector Activities GEF Project ID: 2053 ATLAS Project ID: 00053107 Project Duration: 6 years Management Arrangement: NEX supported by Country Office through Project Implementation Unit</p>
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Budget	USD 3,600,000
GEF	USD 3,600,000
Allocated resources:	
• Government	USD 3,009,000
• NGOs	USD 2,617,950
• Private Sector	USD 2,000,000
TOTAL PROJECT COSTS:	USD 11,226,950

Agreed by:

<u>On behalf of:</u>	<u>Signature</u>	<u>Date</u>	<u>Name/Title</u>
Government of Seychelles			Ambassador Callixte d'Offay Principal Secretary, Ministry of Foreign Affairs & GEF Political Focal Point
Implementing / Executing Agency			Mr. Didier Dogley Principal Secretary, Ministry of Environment and Natural Resources
UNDP			Mr. Claudio Caldarone Resident Representative UNDP Mauritius & Seychelles