

# THE BIODIVERSITY FINANCE INITIATIVE

## BIOFIN SEYCHELLES



Photo courtesy of Dr Elvina Henriette

## POLICY AND INSTITUTIONAL REVIEW

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## **1. INTRODUCTION**

Parties to the Convention on Biological Diversity (CBD), of which Seychelles is a signatory since 1992, agreed in 2010 to an ambitious set of “Aichi biodiversity targets” for biodiversity conservation, sustainable use and equitable benefits sharing. Target 20 calls for countries to assess the financial resource needs and mobilize financial resources for effectively implementing the Strategic Plan.

In this context, in October 2012, UNDP launched the Biodiversity Finance Initiative (BIOFIN) as a new global partnership seeking to address the global biodiversity finance challenge in a comprehensive and systematic manner. A methodology, developed at global level and refined through pilot implementation in 29 countries, is composed of four main elements:

1. Policy and Institutional Review
2. Biodiversity Expenditure Review
3. Biodiversity Financing Needs Assessment (including detailed budgeting of the NBSAP)
4. Biodiversity Finance Plan.

Seychelles is one of the 29 countries participating in the BIOFIN process and launched the BIOFIN process with the Inception Workshop on 17<sup>th</sup> May 2014.

This report on policies and institutional review represents the first assessment document from the BIOFIN process in the Seychelles. In order to complete this report, a desk review of the legal and policy framework concerning biodiversity was carried out focusing on financial provisions. A consultative process with stakeholders was established with the setting up of a Steering Committee co-chaired by the Ministry of Environment, Energy and Climate Change (MEECC) and the Ministry of Finance, Trade and Blue Economy (MFTBE) and attended by civil society representatives and keys government officials involved in biodiversity conservation. The Policy and Institutional Review was the focus of 2 one-day consultative workshops attended by other 40 stakeholders held in November 2014 and in October 2015.

## **2. BIODIVERSITY STATUS AND TRENDS IN SEYCHELLES**

Seychelles has a landmass of some 455 km<sup>2</sup> divided between 115 islands spread over a vast marine Exclusive Economic Zone (EEZ) of approximately 1.4 million km<sup>2</sup>. The country has a population of approximately 91,000 (2014). Seychelles depends on its tourism and fishing industries to support the country’s social services and drive its socioeconomic development. Fisheries, both artisanal and industrial, are directly dependent upon the sound management of marine resources, whilst tourism in Seychelles is based upon the aesthetic beauty of the islands. All of these characteristics are derived from a healthy, clean and productive environment.

Seychelles forms part of a recognized global biodiversity hot spot and is home to two UNESCO World Heritage Sites (Aldabra Atoll and Vallée De Mai) and to three Ramsar wetland sites. Species richness of both flora and fauna is high, and the islands of the Seychelles are characterised by remarkable levels of endemism as a result of millions of years of evolution in isolation. The Seychelles hosts a high level of plant diversity, with 69

endemic plant species. Nationally, there are 198 species included on the IUCN Red List, one of which is 'Critically Endangered', 9 of which are "Endangered", 76 of which are "Vulnerable", with another 112 "Near-threatened"<sup>1</sup>.

Due to the limited land area, terrestrial habitats have been extensively modified in both the granitic and coralline islands. 90% of the landmass of Seychelles is forest cover but the vast majority is secondary forest and dominated by introduced species. The small areas of forest that may still be primary are also subject to significant alien species invasion.

Land use pressure is very high on the narrow flat coastal strip of land where the vast majority of infrastructure, human habitation and commercial activities are located. Notable habitat types under pressure include lowland forest and beach crest habitats in the granitic islands but most significantly lowland inland waters which are the most threatened of native habitat types due to historical and ongoing reclamation, drainage, siltation and pollution.

The marine and coastal biodiversity is a key element of the socioeconomic development of Seychelles. However it has been recognized that marine resources are over-exploited on the Mahé plateau highlighted by a progressive decline in catch since the 90's by the artisanal fishery. Addressing downward trends in the artisanal fishery is difficult because of the multispecies, multi-gear and traditional open access fishing rights. However, The Seychelles Government and the Seychelles Fishing Authority in partnership with stakeholders have taken substantial steps to address these issues in the last three years with the development of a fishery co-management proposal for the artisanal fishery around the Praslin group of islands.

Climate change is another key driver for marine and coastal biodiversity loss. Coral bleaching events due to ocean warming have been extremely important and caused 80-90% live coral loss in 1998. This has an impact on fish populations and related fisheries. Sea temperature affects as well the movement and distribution of pelagic stocks affecting the industrial tuna fishing sector, a key sector of Seychelles' economy. The temperature of incubating turtles nest is known as well to influence the sex ratio of offspring. Climate change is affecting as well terrestrial biodiversity with the change of ambient temperature, change of rainfall patterns and increase of intensity of extreme weather events affecting the physical and biotic components of the environment.

Based on World Bank 2014 data, Seychelles boasts the highest per capita GDP of US\$15,400 in Africa but it also has a GINI<sup>2</sup> Index of 65.8 which actually is the worst ranking globally. After several decades of a centralised government and extended welfare system, the Seychelles' economy was on the verge of bankruptcy in 2008, when the authorities successfully adopted an IMF supported programme of financial, monetary and economic reforms. These reform measures brought financial and monetary stability but did little to alleviate the social ills including pockets of poverty, substance abuse and related crime, voluntary unemployment, rise in prostitution and related diseases e.g HIV AIDS and Hepatitis B; increase in other diseases and health disorders including cancer, cardiovascular disease, diabetes and obesity.

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<sup>1</sup> IUCN 2012. IUCN Red List of Threatened Species. Version 2012.2. <[www.iucnredlist.org](http://www.iucnredlist.org)>

<sup>2</sup> An index of income inequality

As a result of the social ills, the small indigenous workforce became unable or unwilling to meet the requirements of key sectors such as tourism, fishing and the construction and building industry. Consequently, the country has had to increasingly rely on foreign labour for these and other sectors, to the extent that currently one in four people in employment are foreigners.

### 3. Institutional Framework Analysis

INSTITUTIONS IMPACTING ON BIODIVERSITY CONSERVATION IN TOURISM, FISHERIES, AGRICULTURE SECTORS AND PROTECTED AREAS.				
SECTOR	INSTITUTION	ROLE OF INSTITUTION	CONSTRAINTS	OPPORTUNITIES
TOURISM	MINISTRY OF TOURISM AND CULTURE (MTC)	The MTC has the overall responsibility for developing the vision and policy for the tourism sector. MTC has been promoting sustainable tourism.	MTC does not have adequate capacity from within, or the budget to outsource such capacity, in order to properly mainstream biodiversity conservation into the Tourism Master Plan as well as the tourism policy and strategy. It is also lacking in capacity to ensure proper coordination with other key stakeholders such as MEECC, MFTBE, and NGOs in its bid to achieve sustainable tourism.	MTC should improve its networking with Government and other key stakeholders in order to better mainstream conservation into their policies, strategy and Master Plan. MTC should make a case for additional resources to either have increased capacity in-house or to outsource capacity to improve networking and mainstreaming. As part of its new policy on sustainable tourism MTC is exceptionally and selectively considering proposals for small tourism developments within conservation / protected areas. Royalties from such developments could fund protection and restoration of the protected areas.
TOURISM	SEYCHELLES TOURISM BOARD (STB)	STB has responsibility for marketing Seychelles as a high end destination with strong emphasis on its pristine environment. Hotels and other tourism operators pay a marketing fee of 0.5% of turnover which in large part funds the operations of the STB.	STB is not seen as participating actively in local biodiversity conservation initiatives such as BIOFIN, and as a result may not have sufficient awareness of conservation issues in order to do more effective marketing of sustainable tourism.	STB should have enough capacity to better participate and network in local conservation initiatives. It could also monitor and report on feedback from Tour Operators, Trip Advisor etc relative to biodiversity conservation to MEECC, SNPA, NGOs and other key conservation stakeholders

<b>TOURISM</b>	<b>MINISTRY OF ENVIRONMENT, ENERGY AND CLIMATE CHANGE (MEECC)</b>	MEECC has a key role in working closely with MTC in promoting sustainable tourism. MEECC is responsible under the Environment Protection Act to enforce EIAs for all projects, including tourism projects.	EIAs are not always complied with or enforced. MEECC is responsible for Protected Areas (PA) and there is pressure for new tourism projects including hotels to encroach Protected Areas.	MEECC can continue to be instrumental in promoting sustainable tourism. It can support MTC's policy of identifying small selective eco tourism developments within Protected Areas while maintaining its position not to allow encroachment of Protected Areas more generally.
<b>TOURISM</b>	<b>SEYCHELLES NATIONAL PARKS AUTHORITY (SNPA)</b>	SNPA is responsible for managing the Marine and Terrestrial National Parks. They previously had financial autonomy, but all revenues from fees collected from parks are currently credited to Government's Consolidated Fund. SNPA are thus budget dependent now.	The Ministry responsible for Finance is reluctant to give back financial autonomy to SNPA until such time SNPA have adequate capacity including a strong board and management. In the meantime, SNPA are not incentivised to properly collect fees mostly from Marine Parks, and in turn the marine parks are not being properly managed and protected.	SNPA should eventually be returned its financial autonomy by ensuring that its Board of Directors is strengthened with representation from key Government agencies e.g. Department of Finance, MEECC, MTC as well as NGOs. SNPA should also have strong management that would ensure it develops capacity to meet its expected deliverables.
<b>TOURISM</b>	<b>SEYCHELLES INVESTMENT BOARD (SIB)</b>	SIB acts as a One-Stop-Shop for all investors across all sectors including investment in the tourism sector.	Not all tourism projects are channelled through the SIB, especially those which do not involve foreign investors. SIB needs to be at all times au fait with sustainable tourism policies.	SIB should become the One-Stop-Shop for ALL projects and not only those involving foreign investors.
<b>TOURISM</b>	<b>SEYCHELLES PLANNING AUTHORITY</b>	Planning Authority is responsible for approving architectural plans for all building and construction projects.	The Planning Authority has in the past tended to adopt a micro view of projects submitted for its consideration. Plans are under way for the Planning Authority to take a broader view of projects taking into account the country's vision and the policy and strategy for the sectors concerned. Another constraint is that once plans are approved, there is no systemic monitoring to ensure compliance.	Once the Seychelles Strategic Plan is approved, the Planning Authority should ensure that it considers approving projects taking into account the vision, as well as policies and strategies. In the case of the tourism sector, the Planning Authority should not only ensure that all requirements including EIAs are met, but that there is monitoring and assessment.

<b>TOURISM</b>	<b>SEYCHELLES LICENCING AUTHORITY (SLA)</b>	The SLA is responsible for approving and renewing licences for all businesses in Seychelles.	Insofar as tourism businesses are concerned, the SLA has clear and well established procedures, seeking the views of all key Government agencies including MEECC prior to approving or renewing each licence. The SLA has so far not sought the views of relevant NGOs or civil society for businesses that could negatively impact in a significant manner on conservation.	The SLA (or the Planning Authority) could extend their approval procedures by also obtaining the views of relevant NGOs or civil society in cases of projects or businesses that could significantly and negatively impact on biodiversity conservation.
<b>TOURISM</b>	<b>SEYCHELLES CHAMBER OF COMMERCE AND INDUSTRY (SCCI)</b>	SCCI is responsible for promoting and defending the interests of the Seychelles business community	SCCI has been relatively active in terms of participation in key conservation initiatives, but is not always consulted by Government in policy formulation including that relating to sustainable tourism.	SCCI should promote an institutionalised forum for policy dialogue with Government including policy for sustainable tourism.
<b>TOURISM</b>	<b>SEYCHELLES HOSPITALITY AND TOURISM ASSOCIATION (SHTA)</b>	SHTA represents all of the tourism private operators in Seychelles, and in the process promotes and defends their interests	SHTA has so far not sufficiently promoted awareness of importance of biodiversity conservation to its members.	SHTA should further develop awareness of importance of biodiversity conservation to its members and other key stakeholders. It could most likely obtain donor funding via local NGOs for such sensitisation programmes.
<b>TOURISM</b>	<b>MARINE CHARTER ASSOCIATION</b>	Marine Charter Association used to be the umbrella entity for charter vessels in Seychelles, but with the advent of Eden Island Marina its role has been much diminished	The Marine Charter Association has had a diminished role in recent years.	The Marine Charter Association could play a more significant role in promoting conservation best practices at the very least among its members.
<b>TOURISM</b>	<b>SEYCHELLES YACHT CLUB</b>	Seychelles Yacht Club is a private club for mostly Seychelles based yacht and pleasure boat owners.	The Yacht Club has also had a diminished role with the advent of Eden Island Marina.	Insofar that the Yacht Club is used by foreign yachts, it could play a more active role in supporting biosecurity especially by reporting yachts that arrive unchecked.
<b>TOURISM</b>	<b>EDEN ISLAND MARINA</b>	Eden Island Marina is a new dedicated superyacht facility developed in conjunction with the Eden Island Residential Project	Eden Island Marina has become one of the largest marinas in the SW Indian Ocean and it constitutes a challenge for the authorities to control arrival of yachts and other vessels.	Government and Eden Island Marina will have to develop a modus operandi for better control of arriving vessels and yachts especially with regards to enforcement of biosecurity legislation.
<b>TOURISM</b>	<b>SEYCHELLES SPORT FISHING</b>	The Seychelles Sport Fishing Club regroups owners of sport fishing vessels who either carry	The Sport Fishing Club have not sufficiently promoted awareness of biodiversity	The Sport Fishing Club could mobilise resources via NGOs in order to promote

	<b>CLUB</b>	out sport fishing for their own pleasure or who rent out their vessels to tourists having such interests. They are also involved in fishing competitions sponsored by Round Table or Rotary for charitable causes.	conservation among its members and other sport fishermen.	greater awareness of the importance of biodiversity conservation among its members and other sport fishermen, including fishing techniques that would allow live fish caught to be returned to their habitat, as well as mooring of vessels that would not negatively impact on corals.
<b>TOURISM</b>	<b>SEYCHELLES CAR HIRE OPERATORS ASSOCIATION</b>	Seychelles Car Hire Operators Association promotes and defends the interests of car hire operators in Seychelles	The Seychelles Car Hire Operators Association have had negligible involvement in conservation.	Following recent tax concessions on electric and hybrid vehicles, the Car Hire Operators Association is lobbying for permission for its members to be able to directly import electric or hybrid vehicles without going through local car dealerships. To the extent that car hire operators may be able to replace their fleet with electric or hybrid vehicles, it would have beneficial effects on carbon emissions.
<b>TOURISM</b>	<b>SEYCHELLES TAXI OPERATORS ASSOCIATION</b>	Seychelles Taxi Operators Association promotes and defends the interests of taxi operators in Seychelles	The Seychelles Taxi Operators Association has so far had negligible involvement in conservation.	Same opportunities for taxi operators as for car hire operators to the extent that they may replace their vehicles by electric or hybrid versions.
<b>TOURISM</b>	<b>SEYCHELLES PUBLIC TRANSPORT CORPORATION (SPTC)</b>	SPTC is the Government owned sole public transport company serving the islands of Mahé, Praslin and La Digue	SPTC has so far had negligible involvement in conservation.	Same opportunities for SPTC buses as for car hire and taxi operators to the extent that SPTC may replace its buses by electric or hybrid versions. Furthermore, if SPTC could provide a public transport service with greater reliability, safety and comfort, then it would become more appealing as an alternative to car users.
<b>TOURISM</b>	<b>ASSOCIATION OF SEYCHELLES CRAFTSMEN</b>	The Association of Seychelles Craftsmen promotes and defends the interests of small businesses and sole traders in the craft, and souvenir sector	The Association of Seychelles Craftsmen has so far not sufficiently promoted awareness of biodiversity conservation. Its members and curio / souvenir operators have in instances been responsible for alleged poaching of live seashells and <i>coco de mer</i> nuts.	The Association of Seychelles Craftsmen should better sensitise its members and Seychelles craftsmen in general about the importance of respecting and promoting conservation.

<b>TOURISM</b>	<b>SEYCHELLES ISLAND FOUNDATION (SIF)</b>	SIF is a Government owned Foundation with financial autonomy and is responsible to manage the UNESCO World Heritage sites of Aldabra and Vallee de Mai.	SIF has been most active and successful in conservation of both Aldabra and Vallee de Mai. In the case of the latter, the revenues generated from visitor fees have allowed SIF to be financially autonomous and to develop sufficient capacity to protect both sites. However the <i>Coco de Mer</i> has become so lucrative not only for its shell but also for its kernel that additional resources may be required to further protect against poaching.	SIF should be able to further build on its excellent track record in conservation hand in hand with sustainable tourism. SIF should continue to devote sufficient resources towards protecting the <i>Coco de Mer</i> against poaching.
<b>TOURISM</b>	<b>RAVINS DE FOND FERDINAND FOUNDATION</b>	The Ravins de Fond Ferdinand set up in 2013 is responsible for the management and protection of Fond Ferdinand nature reserve on Praslin which ranks alongside the Vallee de Mai as the largest natural habitat of the <i>Coco de Mer</i> .	The Ravins de Fond Ferdinand Foundation is expected to be financially autonomous thanks to fee revenues from visitors to access the reserve and from sales of <i>Coco de Mer</i> . However the Foundation's revenues are not sufficient to protect the reserve from poachers.	The Foundation is outsourcing security to protect the RFF Reserve, but since it requires additional funding to prevent poaching, the Foundation should aim to generate additional revenue from the kernel of the <i>Coco de Mer</i> which it currently sells relatively cheaply to a local exporter.
<b>TOURISM</b>	<b>NATURE SEYCHELLES</b>	Nature Seychelles is the oldest NGO in Seychelles and is vested with the responsibility to manage the world famous Cousin Island Reserve. Nature Seychelles also carries out scientific, management, educational and training programmes.	Nature Seychelles has had a sub-optimal relationship in recent years with the Ministry responsible for Environment.	Nature Seychelles could play an even bigger role in conservation and sustainable tourism, but it may need to have improved cooperation with key stakeholders including MEECC and BIOFIN Initiative.

<b>TOURISM</b>	<b>ISLAND CONSERVATION SOCIETY (ICS) and ISLAND DEVELOPMENT COMPANY (IDC)</b>	ICS is an NGO which owns and manages the Aride Island Nature Reserve, one of the finest nature reserves in the western Indian Ocean. ICS also has an agreement with IDC to advise and wherever necessary to manage environmental and conservation issues on Silhouette and outer islands under the lease of the IDC. Conservation centres have been established on IDC islands of Alphonse, Desroches and Silhouette all of which have resort hotels.	IDC has successfully introduced a conservation levy on each bed night sold on the Island Resorts of Silhouette, Desroches and Alphonse. Such revenues have been paid into Trust Funds for each of the islands which in turn funds the Conservation Centres managed by ICS on Silhouette, Desroches and Alphonse. In each case, Foundations have been set up with representatives of MEECC, IDC, the resort hotel and Villa Owners to approve the budget for the respective Conservation Centres. However IDC does not have sufficient resources to manage conservation on the other IDC outer islands.	IDC and ICS should consider cross funding conservation programmes using some of the funds generated from the island resorts of Silhouette, Desroches and Alphonse.
<b>TOURISM</b>	<b>GREEN ISLAND FOUNDATION (GIF)</b>	GIF is an NGO which manages conservation on privately owned resort islands of Denis and North Island.	GIF has successfully implemented de-ratisation and removal of other invasive alien species on North Island, followed by restoration of the habitat for endemic birds. GIF has been even more active on Denis in implementing conservation programmes and developing sustainable tourism. GIF may not have been as involved in conservation of marine biodiversity due to lack of resources.	As in the case of IDC islands, there is an opportunity for both North and Denis Island Resorts to levy a "sustainable tourism" that would be passed on to GIF to expand its conservation activities especially into the marine protected areas.

<b>TOURISM</b>	<b>OTHER ENVIRONMENTAL NGOs</b>	These include Marine Conservation Society of Seychelles (MCSS), Sustainability 4 Seychelles (S4S), Terrestrial Restoration and Action Society (TRASS), Mangroves for the Future (MFF), Plant Conservation Action (PCA) Group, Wildlife Clubs of Seychelles (WCS).	The challenge which most other environmental NGOs face is that their activities are project related and mostly funded by donors. It is not obvious how they could expand their biodiversity conservation activities outside of donor funded projects.	There is an opportunity for Government to give additional support to those NGOs which have the potential to expand their biodiversity conservation activities and in the process further promote sustainable tourism. However, NGOs will need to be transparent and be seen as serving the national interest if they are to receive such support from Government. The support from Government could be in the form of a budgetary allocation to cover NGOs overheads which are not project / donor related. Given Seychelles' recent High Income Status, it may also prove relatively easier moving forward for NGOs to mobilise additional resources from donors since Government may find it more challenging to do so.
<b>TOURISM</b>	<b>ISLAND RESORTS</b>	<i>Cousine, Fregate</i> and Bird Islands are island resorts which manage their own conservation programmes	While all such islands are exclusive island resorts which have been funding their own conservation programmes in the true spirit of sustainable tourism, there is room to further expand their activities especially in the sphere of marine biodiversity conservation if additional resources could be mobilised.	Again, the opportunity exists to raise a "sustainable tourism" levy on bed nights sold which would then be channelled into the islands' conservation programmes.
<b>TOURISM</b>	<b>LARGE HOTELS</b>	Large hotels which either manage their own conservation programmes or use NGOs to do so include Lemuria and Ephelia Constance Resorts, Banyan Tree Resort, Raffles Hotel, and Four Seasons Hotel. However a number of large hotels on Mahé and Praslin are not directly involved in conservation and developing sustainable tourism.	While the large hotels already engaged in conservation programmes could expand their conservation activities by mobilising additional resources, it is regretted that some large hotels still do not have the resolve to engage in their own conservation programmes.	BIOFIN proposes to host a Workshop in 2016 to showcase those hotels which may serve as role models for the ones that are so far not significantly engaged in conservation programmes of their own. In the case of large hotels on <i>Mahé, Praslin</i> and <i>La Digue</i> , there is an opportunity for them to request their guests to pay the equivalent of the proposed "sustainable tourism" levy on a voluntary basis.

<b>TOURISM</b>	<b>SMALL HOTELS, GUESTHOUSES AND SELF-CATERING ESTABLISHMENTS</b>	Only a few small hotels and guesthouses are engaged in biodiversity conservation. Examples of such hotels are L'Archipel Hotel and Laurier Hotel which are engaged in managing conservation especially via energy efficiency and rainwater harvesting.	Most small hotels and guesthouses suffer from lack of awareness of the importance of biodiversity conservation both for the Seychelles tourism industry in general and more specifically for their own long term profitability. Such small establishments also in most cases do not fully appreciate that biodiversity conservation could be a powerful marketing tool especially in the traditional tourism markets of Europe.	MTC and MEECC possibly with the support of BIOFIN could create greater awareness of biodiversity conservation in the promotion of sustainable tourism and how even small establishments could have a marketing edge by developing their own small conservation programmes.
<b>TOURISM</b>	<b>DESTINATION MANAGEMENT COMPANIES(DMCs)</b>	DMCs are responsible for most visitors to Seychelles, and manage a range of services including hotel and airline bookings, car rental, airport transfers, excursions to marine and terrestrial conservation parks.	Apart from sponsoring limited conservation activities via CSR, the DMCs are not otherwise engaged in biodiversity conservation, yet they are among those benefiting the most from sustainable tourism in Seychelles.	Government should consider introducing a small levy on turnover of DMCs which could be channelled into the SEYCCAT Fund. This could be justified since one of the most profitable activities of DMCs are excursions which in the main are carried out in either the terrestrial or marine national parks.
<b>TOURISM</b>	<b>AIR SEYCHELLES</b>	Air Seychelles is the national airline and has main objective of ensuring air access to Seychelles at all times. In recent years it has forged a JV with Etihad Airlines of Abu Dhabi to serve the Seychelles destination.	Although Air Seychelles has given much publicity to Seychelles biodiversity conservation programmes through their marketing and advertising, the national airline has not directly engaged in its own conservation programme.	Air Seychelles / Etihad could adopt their own biodiversity conservation programme which could be managed by one of the local NGOs. Such an initiative would raise the profile of the national airline not only locally but even more importantly at the international level.
<b>TOURISM</b>	<b>OTHER AIRLINES</b>	Other airlines serving the Seychelles destination include Emirates, Kenya Airways, Ethiopian Airways, Mini Lanka and Condor	These foreign airlines serving the Seychelles destination are not engaged in conservation activities in Seychelles except via CSR.	The foreign airlines should also help to promote biodiversity conservation in Seychelles and to network with key local stakeholders involved in conservation.
<b>FISHERIES</b>	<b>MINISTRY OF FISHERIES AND AGRICULTURE(MFA)</b>	MFA is responsible for vision, policy and strategy for the fisheries sector. Its objective is to promote and develop sustainable fisheries in Seychelles.	Following the setting up of the SAA, the MFA has become one of the smallest ministries and has a limited budget and capacity. Yet it is not only expected to play an all-important policy formulation and monitoring role, but it is also one of the key stakeholders for implementation of food security as well as biosecurity legislation.	MFA should make the case for an increased budgetary allocation such that it may develop sufficient capacity to better fulfil its role not only for sustainable use of Seychelles marine resources, but more specifically for food security and prevention of further alien invasive species.

<b>FISHERIES</b>	<b>MINISTRY OF ENVIRONMENT ENERGY AND CLIMATE CHANGE (MECC)</b>	MEECC has a key role to play in supporting marine biodiversity conservation and sustainable fishing in Seychelles EEZ. In this connection, it is working closely with MFA and MFTBE.	MEECC is also suffering from lack of capacity. It is over-dependent on a number of UNDP-GEF funded PCUs, but these are project related and should not serve as substitutes for mainstreaming role and activity of MEECC.	MEECC should also make the case for additional resources especially if it is to play a significant role in supporting the 30% Protected Area and 15% No Take Zone within Seychelles' EEZ.
<b>FISHERIES</b>	<b>MINISTRY OF FINANCE TRADE AND BLUE ECONOMY (MFTBE)</b>	MFTBE has been vested with responsibility for the Blue Economy with effect from 2015. Given that it also has responsibility for Finance and Trade, MFTBE is working closely with MFA and MEECC to set up SEYCCAT (see below) and Blue Bonds.	Since MFTBE has portfolio responsibility for the Seychelles Blue Economy Initiative, it should ensure that it involves all key stakeholders including MFA and MEECC as well as NGOs and the private sector in rolling out SEYCCAT, the MSP Project, and Blue Bonds. There is otherwise the risk of lack of policy coordination and sub optimal use of scarce resources, including capacity.	MFTBE will be instrumental in determining the success of the Blue Economy initiative and in the process sustainability of marine resources provided it can clearly define the role of the various stakeholders and ensure that the Government dependent ones such as MFA and MEECC are vested with sufficient capacity to fulfil their respective roles.
<b>FISHERIES</b>	<b>SEYCHELLES NATIONAL PARKS AUTHORITY (SNPA)</b>	SNPA is responsible for managing the Marine and Terrestrial National Parks. As far as Marine Parks are concerned SNPA's role is currently limited to marine parks within Seychelles territorial waters.	SNPA is lacking in resources and capacity as well as incentives in order to properly execute its role of managing the marine PAs. It is widely believed that since all marine park fees collected by SNPA have to be passed on to the Government Consolidated Fund, SNPA is not collecting as much revenue as it should. Also SNPA's management of the marine parks appears to have slackened since loss of its financial autonomy.	MFTBE should support the proposed BIOFIN funded study to establish conditions under which SNPA could have its financial autonomy reinstated.
<b>FISHERIES</b>	<b>SEYCHELLES CLIMATE CHANGE ADAPTATION TRUST (SEYCCAT)</b>	SEYCCAT is being set up as part of the Debt for Climate Change Adaptation Swap agreed between Seychelles and the Paris Club. The Nature for Conservancy (TNC) of the USA has been outsourced to set up SEYCCAT and the related Marine Spatial Planning (MSP) project.	Legislation to set up SEYCCAT was being drafted in October 2015 and it is likely that SEYCCAT could become operational by 2016.	SEYCCAT is set to become a major platform for mobilising resources for marine biodiversity conservation. To the extent that it becomes a fully transparent, lean institution with clear objectives and deliverables, SEYCCAT would be attractive not only to foreign donors and philanthropists, but local private sector as well. Plans are already under way to draw synergies between BIOFIN and SEYCCAT, with the possibility that the former may dovetail into the latter.

<b>FISHERIES</b>	<b>INDIAN OCEAN TUNA COMMISSION (IOTC)</b>	The Indian Ocean Tuna Commission (IOTC) is an intergovernmental organisation responsible for the management of tuna and tuna-like species in the Indian Ocean.	Since tuna is a highly migratory species management and surveillance of tuna stocks have to be done jointly with neighbouring states, hence the important role of IOTC. Nevertheless, surveillance of Seychelles EEZ of circa 1.4 million sq km will always remain a major challenge.	Seychelles has been one of the key founder members of the IOTC with the support of the FAO. It is fitting that the current CEO of IOTC is a Seychellois. As Seychelles rolls out the MSP, it should be able to share such experience with other member countries.
<b>FISHERIES</b>	<b>SEYCHELLES FISHING AUTHORITY (SFA)</b>	The SFA has responsibility for implementation of fishery policy and strategy under the aegis of MFA.	The SFA is certainly not lacking in resources, being the beneficiary of substantial grants from the EU for purposes of developing sustainable fisheries. Such resources are being used inter alia for developing training and capacity building as well as Research and Development.	SFA will be called upon to play an even more important role as Government moves forward with implementation of the Blue Economy Initiative. It will need to play a fine balancing act with implementation of the 15% No Take Zone and the Industrial Fishing Companies licenced to fish in Seychelles EEZ.
<b>FISHERIES</b>	<b>MARINE CONSERVATION SOCIETY SEYCHELLES (MCSS)</b>	MCSS is an NGO which promotes conservation of the marine environment through education, research, and a number of programmes. Current activities include the long running monitoring of whale sharks and turtles as well as several grant funded programmes and projects.	MCSS depends mostly on project related funding, and with the completion of certain projects MCSS has seen a decline in recent times of its marine conservation activities. MCSS has also been mandated by Banyan Tree Resorts to manage their local conservation programme.	Government could provide more support to MCSS such that it could play an even more active role in marine conservation given that it has developed considerable capacity over the years.
<b>FISHERIES</b>	<b>INDUSTRIAL FISHING COMPANIES</b>	The key industrial fishing companies licensed to fish in Seychelles EEZ include Spanish and French Tuna Purse Seiner companies as well as Japanese and Taiwanese Tuna Long-liner companies. Most of their catch is either sold to the IOT canning factory or transhipped in Port Victoria for export to Europe.	As highlighted above, the Industrial Fishing Companies particularly the EU Purse Seiner Companies have expressed concern about the PA and No Take Zone within the proposed MSP. The industrial fishing companies licenced to fish in Seychelles EEZ claim that only 15% of their catch is from Seychelles EEZ. The royalties paid annually by EU purse seiner companies represent a very small percentage of the value of their annual catch. Furthermore, tuna fishing vessels are responsible for damage done to the marine environment by the Fish Aggregating Devices (FADs) which get caught in coral and in some	Fortunately, the 15% No Take Zone lies mostly outside the industrial fishing areas. Government has also decided in September 2015 not to move too hastily with the MSP which is now unlikely to be implemented before June 2016. In the meantime, it would be useful to carry out a cost benefit analysis of the proposed MSP vis-a-vis the risk of losing some of the licenced Industrial Fishing Companies. Seychelles should aim to increase the overall contribution of industrial tuna fishing towards the domestic economy. Past attempts to develop Seychelles own industrial fishing fleet have

			cases washed ashore.	failed probably because of being Government driven. Government should try to incentivise local private sector in partnership with foreign investors / operators to develop a domestic fleet possibly with partial funding from the proposed Blue Bonds.
<b>FISHERIES</b>	<b>SEMI-INDUSTRIAL FISHING COMPANIES</b>	Semi -Industrial Fishing companies are Seychelles based and involved in catching both demersal and pelagic fish, as well as sea cucumbers, and deep water crabs.	The majority of the Semi-Industrial Fishing companies have identified a lucrative niche. For example the ones fishing and exporting sea cucumbers are highly profitable and are aware of the need not to over-fish. Similarly, those fishing the deep water crab giraffe have been doing so on a sustainable basis. But in most cases these operators are placing indirect barrier to entry by others through the licencing system.	In the case of sea cucumber and deep water crab fishing, there could be scope for expansion if the authorities should have a closed period each year to coincide with the spawning season in the same way it has been done for several decades for crayfish.
<b>FISHERIES</b>	<b>ARTISANAL FISHERMEN</b>	The Artisanal Fishermen are mostly involved in catching demersal and semi-pelagic fish, as well as octopus and crayfish.	Artisanal Fishermen are having to go further on the Mahé Plateau to catch fish, and this has resulted in a surge in fish prices such that most Seychellois can no longer afford fish which used to be part of the staple and an important source of protein. Such fishermen will argue that most species of fish remain in abundance and that there is no evidence based on average size of fish being caught that over-fishing is taking place.	Government plans to phase out the fuel and ice subsidies being given to artisanal fishermen, and to channel those fishermen that would possibly be out of business into other activities such as processing tuna or bycatch.
<b>FISHERIES</b>	<b>THE FISHING BOAT OWNERS ASSOCIATION (FBOA)</b>	The FBOA is a registered non-governmental organisation working with Seychelles' traditional and semi-industrial fisheries sectors. As part of its vision, FBOA supports the sustainable development of fisheries through responsible management of resources.	It is not clear how active FBOA has been in promoting biodiversity awareness and sustainable fishing among its members.	FBOA could mobilise resources via NGOs or Donors in order to create greater awareness among its members relative to sustainable fishing and marine biodiversity conservation.

<b>FISHERIES</b>	<b>PRASLIN FISHERS ASSOCIATION (PFA)</b>	PFA represents the interests of Praslin Fishermen and has been active in developing the first Praslin Fisheries Co-Management Plan with the support of UNDP / GEF, the objective of which is to ensure that fisheries are managed on an ecologically sustainable basis, so as to maintain the fisheries resources over the long term and minimise disruption to maritime ecosystems.	Having successfully developed the first Praslin Fisheries Co-Management Plan, PFA should become more involved in marine biodiversity conservation issues that also affect the livelihood of fishermen, the recent algal bloom of October 2015 being a typical case.	PFA should use the algal bloom of October 2015 which has had catastrophic consequences for Praslin fishermen, as the springboard to get more involved together with MFA, SFA and NGOs in understanding the causes of such calamity and how these could be mitigated moving forward.
<b>FISHERIES</b>	<b>SEYCHELLES SPORTS FISHING CLUB</b>	The Seychelles Sport Fishing Club regroups owners of sport fishing vessels who either carry out sport fishing for their own pleasure or who rent out their vessels to tourists having such interests. They are also involved in fishing competitions sponsored by Round Table or Rotary for charitable causes.	The Sport Fishing Club have not sufficiently promoted awareness of biodiversity conservation and use of environment friendly fishing practices among its members and other sport fishermen.	The Sport Fishing Club could mobilise resources via NGOs in order to promote greater awareness of the importance of biodiversity conservation among its members and other sport fishermen and by adopting more environment friendly fishing practices. Such practices include Catch and Release as well as mooring of vessels that would not negatively impact on corals.
<b>FISHERIES</b>	<b>INDIAN OCEAN TUNA COMPANY / THAI UNION</b>	The IOT canning factory which is 40% Government owned and 60% Thai Union, processes about 100,000 tonnes of tuna per annum, either into canned tuna or tuna loins for export mainly to Europe.	It is not clear what the net benefits of tuna canning represent, given that most of the ingredients have to be imported and that the IOT factory depends largely on foreign labour for which they have to provide accommodation and airfares. Although gross foreign earnings from sale of canned tuna are substantial, net earnings would be much less if foreign outflows are deducted. These would also include remittances abroad by foreign workers.	Government believes that there is scope for expansion of value added not only in terms of tuna canning, but by allowing private sector including traditional fishermen to set up fish processing industries. One of the ways to allow more of the tuna being transhipped to be processed in Seychelles would be to increase the transhipment levy.

<b>FISHERIES</b>	<b>SEYCHELLES BASED FISH PROCESSING AND EXPORT COMPANIES</b>	The two main companies are Oceana Fisheries Ltd and Sea Harvest Ltd. Both companies are involved in selling fresh and frozen fish as well as fish products to the local market and for export. In the case of Oceana Fisheries, they also have their own semi-industrial fishing vessels.	Prices of certain prized demersal fish such as red snapper and grouper have surged in recent years, as artisanal fishermen have to go further to catch such fish, some species of which are believed to be threatened from overfishing. These companies are selling mostly to hotels and the export market, given that most Seychellois can no longer afford such fish. Given that these companies have to compete with suppliers of similar fish on the export market, they will find it difficult to export if the prices paid to local fishermen keep soaring.	The fish processing and exporting companies may have to diversify into bycatch from tuna purse seiner vessels. The authorities may also need to review policy of allowing export of certain demersal and semi-pelagic species which are suspected of being overfished.
<b>FISHERIES</b>	<b>MARICULTURE ENTITIES</b>	There has so far been only two Mariculture Projects in Seychelles, the first being the state owned Coetivy Prawn Farm which has now ceased to operate, and the second being the Praslin based Pearl and Clam Farming Project by set up by the private sector in 2005 and which remains operational. But the Seychelles authorities have with the support of NEPAD and IOC developed a Mariculture Masterplan in 2013 which could be pivotal in the future development of sustainable fisheries in Seychelles.	The implementation of the hatchery component of the Mariculture Masterplan would most likely have to be funded by Government or foreign donors. For its part, the private sector could play a major role in developing other aspects of mariculture, but it would appear that the business case remains to be made in order to further involve the private sector.	As part of the Blue Economy, and with the gradual phasing out of fuel and ice subsidies to artisanal fishermen, Government could incentivise the private sector to invest in new mariculture projects.
<b>AGRICULTURE</b>	<b>MINISTRY OF FISHERIES AND AGRICULTURE(M FA)</b>	MFA is responsible for vision, policy and strategy for the agricultural sector. Its objective is to promote and develop sustainable agriculture in Seychelles	Following the setting up of the SAA, the MFA has become one of the smallest ministries and has a limited budget and capacity. Yet it is not only expected to play an all-important policy formulation and monitoring role, but it is also one of the key stakeholders for implementation of food security as well as biosecurity legislation.	MFA should make the case for an increased budgetary allocation such that it may develop sufficient capacity to better fulfil its role not only for sustainable agriculture but more specifically for food security and prevention of further alien invasive species.

<b>AGRICULTURE</b>	<b>MINISTRY OF ENVIRONMENT ENERGY AND CLIMATE CHANGE (MECC)</b>	MEECC plays a key role in supporting MFA and other stakeholders in the agricultural sector in promoting sustainable agriculture. In particular, MEECC 's Department of Environment (DOE) is one of the main regulators in prevention of further alien invasive alien species. DOE also has responsibility for protecting Seychelles' water aquifer and marine environment from some of the harmful practices of agriculture e.g. fertilisers, pesticides, livestock waste.	The DOE suffers from lack of resources and capacity required to fulfil its mandate of protecting Seychelles from further invasive alien species, as well as to protect Seychelles' water aquifers and marine environment from fertilisers, pesticides, and livestock waste.	MEECC should make the case for additional resources in terms of budgetary allocation for capacity building.
<b>AGRICULTURE</b>	<b>MINISTRY OF LAND USE AND HOUSING (MLUH)</b>	As part of its responsibility for Land Use, MLUH has given approval over the years for almost 80% of agricultural land to be reallocated to other sectors including housing and public infrastructure.	There is still no National Land Use Plan that is being adhered to, and as pressure on land from other sectors especially housing and public infrastructure continues to grow, agricultural land is likely to be further encroached. Paradoxically Government has re-possessed agricultural land from small farmers which was not being used for agriculture and it is such land which is most likely to be reallocated to other sectors.	As part of the Seychelles Strategic Plan 2016-2040, the authorities have an opportunity to adopt a Land Use Master Plan which would be part of a well thought out long term vision for Seychelles. In this connection, Food Security is most likely to be achieved through more intense farming methods such as hydroponics which would require less land.
<b>AGRICULTURE</b>	<b>MINISTRY OF FINANCE TRADE AND BLUE ECONOMY (MFTBE)</b>	The MFTBE's Department of Finance has responsibility for setting the tax and subsidy regime for all sectors.	The Department of Finance has not sufficiently been taking into consideration the impact on biodiversity of harmful subsidies such as those accorded to pesticides and fertilisers.	The Department of Finance should review the impact of both the tax and subsidy regimes on biodiversity with a view to especially eliminating harmful subsidies such as those accorded to pesticides and fertilisers.
<b>AGRICULTURE</b>	<b>SEYCHELLES BUREAU OF STANDARDS (SBS)</b>	SBS in its capacity as the chief authority for standards, is expected to ensure that such standards and best practices are implemented across the agricultural sector.	SBS suffers from lack of capacity and receives an inadequate budgetary allocation.	If Government gave financial autonomy to SBS, the latter would be more incentivised to raise revenue for its services. Currently all such revenue is paid into the Government's Consolidated Fund.

<b>AGRICULTURE</b>	<b>SEYCHELLES AGRICULTURAL AGENCY (SAA)</b>	SAA is the Government owned with the mandate to implement policy and strategy for the agricultural sector under the aegis of MFA.	SAA plays a key role in implementing MFA's policy to achieve greater Food Security. But it has to reckon with the reality that currently Seychelles imports 80% of its food requirements with only 20% being produced locally.	SAA has been promoting sustainable agriculture by helping to prevent farmers using alien species of crops and livestock which may not be adapted to Seychelles' environment, but by reviving indigenous species which are more likely to resist both traditional and new diseases. This in turn would limit damage to Seychelles biodiversity from invasive alien species.
<b>AGRICULTURE</b>	<b>SEYCHELLES FARMERS ASSOCIATION (SeyFa)</b>	SeyFa is the national farmers' organisation set up in 2002 to represent, lobby and advocate for farmers interest to influence the development policies to achieve sustainable profitability and become stable agricultural producers.	SeyFa and its members suffer from lack of awareness especially with regards to damage caused to Seychelles biodiversity from over use or wrong application of fertilisers and pesticides as well as adapted genetic species. It is also not known to what extent SeyFa have been successful in regrouping and defending the interests of all farmers, large and small alike.	SeyFa should be able to mobilise traditional resources from donors in order to further promote sustainable agriculture using best practices especially with regards to use of adapted species, fertilisers and pesticides.
<b>AGRICULTURE</b>	<b>LARGE FARMS</b>	There are only a few large farms in Seychelles which together account for the bulk of local livestock and crop production. These farms are mostly located on Mahé and Praslin islands. Denis Island also now boasts a large farm.	Most of current agricultural production is from large farms as smaller farms continue to disappear from the local agricultural landscape. However, while small farms tended to use traditional farming methods including indigenous and adapted species, larger farms are using more intense farming methods with greater negative impact on biodiversity. Examples of such methods include greater use of less adapted species, fertilisers and pesticides, as well as livestock waste which is affecting water aquifers and marine biodiversity.	Large Farms should be better monitored and controlled by MFA and SAA with regards to use of harmful fertilisers and pesticides and should be encouraged to use adapted species as much as possible. Large livestock farms should be supported to develop waste to energy projects which would in turn greatly reduce the negative impact of livestock waste on water aquifers and marine biodiversity.

<b>AGRICULTURE</b>	<b>SMALL FARMS</b>	Small Farms have been on a constant decline in Seychelles and are involved in both livestock and crop production.	Small Farms are finding it increasingly difficult to have viable operations. The surviving small farms should be encouraged to diversify into more profitable operations such as agro-tourism with emphasis on organic farming.	Small Farms should use SeyFa to make the case to Government and Donors to receive support to diversify into agro-tourism ventures specialising in organic farming and nature trails. In this way, small farms could potentially not only become more viable, but would overall contribute positively rather than negatively towards biodiversity conservation.
<b>AGRICULTURE</b>	<b>HOME BACKYARD FARMING</b>	Backyard Farming is still popular in Seychelles and are mostly for own consumption of the households.	Backyard Farming is not sufficiently being monitored or supported by MFA and SAA, yet it could play an even greater role in achieving food security and sustainable agriculture.	Backyard Farms could either set up their own umbrella or use SeyFa to make the case for receiving more support from MFA and SAA especially in terms of best practices that would indirectly benefit to limit damage to Seychelles biodiversity.
<b>PROTECTED AREAS</b>	<b>MINISTRY OF ENVIRONMENT ENERGY AND CLIMATE CHANGE (MEECC)</b>	MEECC has overall responsibility for Protected Areas in Seychelles	MEECC is also suffering from lack of capacity. It is over-dependent on a number of UNDP-GEF funded PCUs, but these are project related and should not serve as substitutes for mainstreaming role and activity of MEECC. To the extent that MEECC will be expected to be instrumental in the implementation of the proposed 30% Protected Area and 15% No Take Zone of Seychelles EEZ, its lack of resources and capacity will further constrain its role. On another note, although MEECC is represented on the Boards of the Silhouette, Desroches and Alphonse Foundations, it could play a more active role in conservation of other outer islands leased to IDC.	MEECC should also make the case for additional resources especially if it is to play a significant role in supporting the 30% Protected Area and 15% No Take Zone within Seychelles' EEZ.
<b>PROTECTED AREAS</b>	<b>MINISTRY OF FINANCE TRADE AND BLUE ECONOMY (MFTBE)</b>	MFTBE has been vested with responsibility for the Blue Economy with effect from 2015. Given that it also has responsibility for Finance and Trade, MFTBE is working closely with MFA and MEECC to set up SEYCCAT (see below) and Blue Bonds.	The proposed 30% Protected Zone and 15% No Take Zone of Seychelles' EEZ represents a major challenge in terms of surveillance given that this represents almost 500,000 sq km and 220,000 sq km respectively of ocean.	MFTBE will need to ensure that the roles of related institutions viz. MEECC, MFA, SFA, SNPA and SEYCCAT are made clear with regards to responsibility for management of the 30% Protected Areas and 15% No Take Zone of the EEZ.

<b>PROTECTED AREAS</b>	<b>SEYCHELLES NATIONAL PARKS AUTHORITY (SNPA)</b>	The Seychelles National Parks Authority (SNPA) is responsible for all of the marine and terrestrial national parks of Seychelles. The terrestrial parks include Morne Seychellois National Park, the Praslin National Park and the Veuve Reserve on La Digue. The Marine National parks includes Ste. Anne (one of the first marine protected area in the Indian Ocean), Silhouette, Port Launay, Baie Ternay, Ile Coco, Curieuse & Saint Pierre.	SNPA is lacking in resources and capacity as well as incentives in order to properly execute its role of managing the marine PAs. It is widely believed that since all marine park fees collected by SNPA have to be passed on to the Government Consolidated, SNPA is not collecting as much revenue as it should. Also SNPA's management of the marine parks appears to have slackened since loss of its financial autonomy. On a separate note there appears to be potential conflict between SNPA's mandate to manage conservation and protection of the Silhouette marine park and that of the ICS managed Silhouette Conservation Centre (cf Row 23 above).	SNPA should eventually be returned its financial autonomy by ensuring that its Board of Directors is strengthened with representation from key Government agencies e.g. Department of Finance, MEECC, MTC as well as NGOs. SNPA should also have strong management that would ensure it develops capacity to meet its expected deliverables. SNPA should also be given a clear mandate not only with regards to the Silhouette Marine Park, but even more importantly with regards to the proposed 30% Protected Areas and 15% No Take Zone of Seychelles EEZ. (Cf Rows 59, 60 and 62).
<b>PROTECTED AREAS</b>	<b>SEYCHELLES CLIMATE CHANGE ADAPTATION TRUST (SEYCCAT)</b>	SEYCCAT is being set up as part of the Debt for Climate Change Adaptation Swap agreed between Seychelles and the Paris Club. The Nature for Conservancy (TNC) of the USA has been outsourced to set up SEYCCAT and the related Marine Spatial Planning (MSP) project.	While the setting up of SEYCCAT is currently being driven by MFTBE in liaison with MEECC, it is at this point not very clear how SEYCCAT will network with key stakeholders both locally and abroad.	If on the one hand SEYCCAT promises to be the ideal platform for mobilisation of resources for biodiversity conservation and more specifically protection, it should be made clear at the outset how SEYCCAT would be networking with key stakeholders.
<b>PROTECTED AREAS</b>	<b>SEYCHELLES ISLAND FOUNDATION (SIF)</b>	SIF is a Government owned Foundation with financial autonomy and is responsible to manage the UNESCO World Heritage sites of Aldabra and Vallee de Mai.	SEE ROW 20	SEE ROW 20
<b>PROTECTED AREAS</b>	<b>NATURE SEYCHELLES</b>	Nature Seychelles is the oldest NGO in Seychelles and is vested with the responsibility to manage the world famous Cousin Island Reserve. Nature Seychelles also carries out scientific, management, educational and training programmes.	SEE ROW 22	SEE ROW 22

<b>PROTECTED AREAS</b>	<b>ISLAND CONSERVATION SOCIETY (ICS) and ISLAND DEVELOPMENT COMPANY (IDC)</b>	ICS is an NGO which owns and manages the Aride Island Nature Reserve, one of the finest nature reserves in the western Indian Ocean. ICS also has an agreement with IDC to advise and wherever necessary to manage environmental and conservation issues on Silhouette and outer islands under the lease of the IDC. Conservation centres have been established on IDC islands of Alphonse, Desroches and Silhouette all of which have resort hotels.	SEE ROW 23	SEE ROW 23
<b>PROTECTED AREAS</b>	<b>MARINE CONSERVATION SOCIETY SEYCHELLES (MCSS)</b>	MCSS is an NGO which promotes conservation of the marine environment through education, research, and a number of programmes. Current activities include the long running monitoring of whale sharks and turtles as well as several grant funded programmes and projects.	SEE ROW 39	SEE ROW 39
<b>PROTECTED AREAS</b>	<b>PLANT CONSERVATION ACTION (PCA) GROUP</b>	To reduce the loss of diversity within and between plant species and ecosystems in the Seychelles; To promote education and awareness about Seychelles plant diversity at all levels;	PCA is very active in creating awareness of endemic species and conservation of their natural habitat.	PCA could be further supported by Government to expand its role to reduce loss of diversity and to promote education and awareness about plant diversity in Seychelles.
<b>PROTECTED AREAS</b>	<b>SUSTAINABILITY FOR SEYCHELLES (S4S)</b>	S4S works towards social, ecological, economic and technological sustainability, and to inspire, inform and enable people to live, work and play in ways that benefit human and natural communities.	S4S has been very active in promoting awareness across sustainable development issues in Seychelles including Protection of Biodiversity. But like most NGOs, the resources of S4S tend to be limited to donor related projects.	S4S has developed specialised capacity especially in creating awareness and could play an even greater role in this respect. Government and more specifically MFTBE / MEECC should provide additional support to S4S beyond donor related project funding.

<b>PROTECTED AREAS</b>	<b>WILDLIFE CLUBS OF SEYCHELLES</b>	WCS is a leading grass-roots self-sustainable environmental NGO, dedicated to creating an environmentally conscious population in Seychelles. WCS is especially active in a large number of schools in which Wildlife Clubs have been set up.	WCS has been highly involved in Wildlife Clubs in schools by also creating awareness. It has worked closely with the Eco Schools programme of the Ministry of Education as well as S4S. There remains a number of schools that are still not active in terms of either the Eco Schools Programme or having their own Wildlife Clubs.	WCS could have even greater impact of future protection of Seychelles biodiversity by expanding its activities across all schools.
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#### 4. Legal and Policy Framework Analysis

This Section reviews the environmental policy and legislative framework as well as the policy and legal framework for key sectors influencing biodiversity.

Wherever appropriate, the funding mechanism to implement the policies or to enforce the legislation is also addressed.

Article 38 of the **Constitution of Seychelles 1993** states it is the right of every person to live in and enjoy a clean, healthy and ecologically balanced environment. The State undertakes to put in place measures to promote the protection, preservation and improvement of the environment; to ensure sustainable socio-economic development by judicious use and management of resources; and to promote public awareness of the need to protect, preserve and improve the environment. Similarly, Article 40 of the constitution makes it a duty of every citizen to protect, preserve and improve the environment.

There is an extensive legislative and policy framework in place for environmental management in the Seychelles covering all sectors. However, a number of legislations including the EPA and Town and Country Planning Act are outdated. Furthermore, the penalties under these Acts are very lenient and in need of revision. Coordination between institutions is weak resulting in a patchy policy and strategy framework. Violations occur and a great number of them are either not prosecuted or settled out of court. This is due to weak institutional capacity and insufficient tools to enforce the law.

A review and updating process of the legislative framework for environmental management started early 2010 which resulted in the adoption of a revised fishery act, a biosecurity act and a revised protected area policy.

The section below reviews the main legal and policies instrument for environmental management:

##### ✓ **Seychelles Sustainable Development Strategy**

In 2011, the Ministry of Environment and Energy has developed the Seychelles Sustainable Development Strategy (SSDS) (2012-2020) which replaces the previous Environmental Management Plan of Seychelles (1990-2000) and (2000-2010). The SSDS has been endorsed by the cabinet of Ministers in February 2012. However, it is only in mid-2015 that the SSDS steering committee was established to oversee the implementation of the SSDS. The SSDS implementation remains limited as it was not mainstreamed into the national budget process nor was special funding allocated. The SSDS Steering Committee has the clear mandate to increase resource mobilisation for the implementation of SSDS.

The SSDS includes the following fourteen thematic areas in its action plan. The total cost of implementation was estimated at 704 million USD as indicated in the table below:

<b>Programmes</b>	<b>Estimated Resources needed Million USD</b>
1. Social and Human Development	4.2
2. Land Use, Coastal Zones and Urbanization	24.5
3. Biodiversity and Forestry	22.9
4. Agriculture and Food Security	13.4
5. Water, Sanitation and Waste Management	179.5
6. Fisheries and marine resources	114.4
7. Tourism and Aesthetics	1.083
8. Economics of Sustainability	2.1
9. Sustainable Consumption and Production	33.9
10. Energy and Transports	95.7
11. Education for Sustainability	3.7
12. climate change	207.2
13. Policy, Institutional and Regulatory	1.1
14. Operationalisation of the SSDS	0.7
<b>Total</b>	<b>704</b>

The Economics of Sustainability thematic area highlights the fact that Seychelles economy which is mainly based on Tourism and Fisheries is highly dependent upon the health of the ecosystems. However, it was found that there is still a lack of tools and policies to integrate and mainstream environmental issues into economic decision making. The main constraints identified are:

- ✓ There is a lack of expertise in Environmental Economics and the concept is poorly understood.
- ✓ The key economic decision makers do not necessarily factor environmental considerations into their decision making process.
- ✓ The use of cost-benefit analyses and environmental economic valuation methods in the decision making process is limited.

The main goals and strategic objectives of the programme for this thematic area include:

### **Goal 1: Mainstreaming of environmental economics in decision making**

#### **Strategic objectives:**

- To adopt and implement management practices in government and industry to improve corporate environmental performance
- Utilisation of education and technology as a means to mainstream environmental valuation in everyday life and economic activity as deemed appropriate by the relevant stakeholders

- Introduce new legislation, codes of conduct and enforceable guidelines that will institutionalize economic valuation within environmental concerns.

**Goal 2: Develop and improve sustainable financing mechanisms and partnerships for ecosystem conservation and sustainable development**

**Strategic Objectives:**

- Creation of a conducive environment by the Government which fosters public private partnership in sustainable environmental practices
- Create self-sustaining, financial mechanisms in the following environmental functions: waste assimilation capacity, life support and natural goods

**Goal 3: Harmonise national efforts for sustainable development with international best practices and obligations**

**Strategic objectives**

- Contextualize and promote good international environmental practices in areas where it is practical and appropriate.
- Develop capacity to tap into various international funds and initiatives to support the implementation of our national environmental policies.
- Work with our international partners to address issues such as carbon emission and climate change.

The implementation of the action plan of this thematic remains extremely limited due to limited national technical and financial capacity of stakeholders.

✓ **Environment Protection Act (1994)**

The Environment Protection Act from 1994 relates to the protection, preservation and improvement of the environment and for the control of hazards to human beings, other living creatures, plants and property. It is the main legal framework for the environmental impact assessment process, the establishment of sensitive areas, coastal zone management, waste management standards and makes provision for prevention, control and abatement of environmental pollution. The Department of Environment administers the Act, and coordinates the activities of other agencies concerned with the protection of the environment. Processing fees and fines are defined within the regulations of Act and are collected by the Department of Environment and are a source of funding of the Environment Trust Fund. The level of fees or fines have not been updated and do not allow the recovery of costs incurred and the penalties are often very lenient.

The Environment Protection Act is outdated and is being revised to be in line with international best practices and reflect the present national conditions.

### ✓ **Sustainable Land Management National Action Plan (SLM NAP) (2012-2020)**

The Action Plan's Vision is to prevent and reverse land degradation in the Seychelles, whilst protecting the environment and its biodiversity, and ensuring that land contributes optimally to sustainable economic, social and cultural development.

The SLM NAP has 6 specific goals. These are:

- Land use planning and management is supportive of sustainable land management;
- Forested land and watersheds are sustainably managed;
- Agricultural land and water is sustainably managed and contributing to food security in the Seychelles;
- Physical infrastructure developments and coastal zone developments are supportive of sustainable land management;
- Integrated water management and sustainable land management are mutually supportive;
- Climate change adaptation measures are adequate to combat land degradation.

The SLM NAP failed to attract the finance necessary for implementation. To respond to this, the Government of Seychelles prepared an integrated financing strategy. This strategy identified gaps in financing, identified potential sources of financing, and clearly set out the approach needed to securing financing but it was never implemented because of lack of political will.

### ✓ **The Biosecurity Policy (2011)**

The Biosecurity Policy aims to minimize the biodiversity risks to Seychelles and in doing so, protect and improve its Biosecurity status for the benefit of its people, animal, plants, its local industries and the environment thus promoting the general well-being of Seychelles and its people. The policy has the following 8 policy statements:

- The Government of Seychelles will maintain an Appropriate Level Of Protection (ALOP) which includes:
  1. A Pest and Disease Risk Analysis (PRA) or import risk analysis (IRA) must be done to determine if the pest or disease or regulated import is of concern to Seychelles.
  2. The IRA must establish that the pest, disease or regulated import in question is rated as "very low risk."
  3. Risk management methods must be put in place to ensure that the risk estimate for any pest or disease associated with a particular commodity, results in a rating of "very low risk" or the regulated import is safe for use or consumption by human, animal or plant and it is not harmful to the environment or the economy of Seychelles.
- The Government of Seychelles applies a range of sanitary and phytosanitary measures that are the least trade restrictive measures available and that will satisfy Seychelles' ALOP.
- The Government of Seychelles will make biosecurity decisions based upon a scientific risk analysis framework consistent with the adopted ALOP for Seychelles.
- In response to present and potential biosecurity risks, the Government of Seychelles recognizes that resources should be allocated according to risk. The part of resources required to provide the biosecurity service would be funded by the end-user of the service on a cost recovery basis.

- The decisions on control and eradication program funding will be based on cost: benefit considerations and allocations will be therefore allocated to those control and eradication programs that provide the most cost-effective benefit for the community.
- Risk based biosecurity measures to prevent entry and spread of pests, diseases and IAS and to contain and eradicate the biosecurity risks in-country are essential to protect Seychelles' unique biodiversity.
- The major sectors of national concern for biosecurity are:
  - Public Health
  - Plant and Animal Health
  - Food Safety
  - Environment.
- The Government of Seychelles recognizes that the implementation of the biosecurity services and enhancement of the biosecurity status can be effective only when all Government bodies work together with the private sector and civil society in strategic alignment.

✓ **The National Invasive Alien Species (Biosecurity) Strategy for Seychelles (2011-2015)**

The National Invasive Alien Species Strategy for Seychelles (2011-2015) is being implemented by the Biosecurity Service (Plant and Animal Health Unit) and has identified 5 strategic objectives and actions for implementation:

**Objective 1: The introduction and establishment of Invasive Alien Species (IAS) in Seychelles is prevented and minimized.**

- Identify and review regularly, pathways and vectors of IAS introduction.
- Develop an effective science-based risks analysis mechanism, Environmental Impact Assessment and permit system for alien species introduction.
- Develop an effective mechanism for surveillance, detection and rapid response.
- Raise public awareness.

**Objective 2: The spread and impact of IAS in Seychelles is prevented, minimized and effectively managed.**

- Establish and maintain an IAS baseline for Seychelles.
- Identify key geographical and economic areas vulnerable to IAS.
- Identify/develop an appropriate, technically sound system for prioritization IAS issues for management.
- Develop and implement a prioritized national IAS for the agriculture and biodiversity sectors.
- Develop and implement an effective participatory mechanism to prevent the spread of IAS between islands.

- Identify and disseminate information on cost-effective best practice measures for IAS management.

**Objective 3: A comprehensive, empowered and transparent institutional and legislative framework is established.**

- Develop a national strategy through representative stakeholder consultation.
- Review, revise and develop streamlined biosecurity legislation including establishing the mandate and functions of the biosecurity agency.
- Establish and make operational a viable national biosecurity agency/Authority.

**Objective 4: Biosecurity issues are fully integrated across all sectors and the community.**

- Integrate IAS issues throughout key national strategic documents.
- Establish and maintain a national IAS database and web portal.
- Develop and implement a prioritized national IAS research agenda.
- Identify national IAS capacity shortcoming and develop and implement capacity building programmes in appropriate sectoral and civil society agencies.
- Identify scope and priorities for national and international cooperation.
- Identify means and scope for increasing stakeholder and community involvement in effective IAS prevention, eradication, control and mitigation.

**Objective 5: A targeted IAS communication strategy is developed and under implementation**

- Undertake civil society survey to assess state of knowledge regarding the prevention and management of IAS in Seychelles.
- Undertake survey to identify information needs of stakeholder groups.
- Develop and implement a coordinated communications strategy targeted to meet shortfall in awareness of stakeholders and the community.
- Assess impact of and adaptively manage the Communication Strategy.

There is a need to operationalise the strategy by developing a prioritized action plan and an investment plan which is endorsed by the National Biosecurity Committee.

✓ **Animal and Plant Biosecurity Act (2014)**

The Ministry of Agriculture and fisheries is responsible to administer the Act and the Seychelles Agriculture Agency is the focal point agency for biosecurity services.

The functions of the biosecurity agency are:

- ✓ to regulate the entry into Seychelles of regulated pests and diseases affecting animals, plants, human beings and the environment;
- ✓ to carry out surveillance of pests and diseases and assess the status of regulated pests and diseases in Seychelles;
- ✓ to prevent the establishment and spread of regulated pests and diseases and the release of organisms that might adversely affect animals, plants, human beings and the environment in Seychelles;

- ✓ to eradicate, contain or control, the movement of regulated pests and diseases that are already present in Seychelles;
- ✓ to prevent the introduction and spread of regulated pests and diseases not already present in Seychelles;
- ✓ to facilitate the safe importation of animals, animal products, plants and plant products and other regulated articles;
- ✓ to facilitate the export of animals, animal products, plants and plant products, in accordance with the biosecurity requirements of the importing country;
- ✓ to facilitate international cooperation for the prevention of the spread of pests and diseases affecting animals, plants, human beings and the environment; and
- ✓ to perform any other functions as directed by the Minister.

A National Biosecurity Committee (NBC) was established to provide guidance to the biosecurity agency and to the Minister on policy and technical matters. The NBC provides a forum for exchange of information, cooperation and collaboration.

The Animal and Plant Biosecurity Act makes provision for a biosecurity emergency response fund under the authority of the minister responsible, but the fund has not yet been capitalized.

Revised regulations for biosecurity fees and fines have not yet been prepared.

A long term financing strategy for biosecurity services was developed but was never implemented.

#### ✓ **Agriculture and Fisheries Incentives Act (Details provided in the sectoral review)**

The Agricultural and Fisheries Incentives Act determines main incentives to the agricultural and fishery sectors which can be harmful or supportive to biodiversity conservation.

#### ✓ **Seychelles Fishery Act (2014)**

The Government in 2014 endorsed the Revised Seychelles Fishery Act. It is the primary legal instrument to control fishing in Seychelles and put the emphasis on sustainable fisheries and co-management. It is composed of three main parts: Management of fisheries, Enforcement and General provisions (Regulations).

Regulations of the Fishery Act determine licensing fees for local and foreign vessel and fines, which are in line with the present national conditions. Fees and fines are collected by the Seychelles Fishery Authority and are remitted to the national consolidated fund.

#### ✓ **Blue Economy Concept and Roadmap**

In 2015, the government of Seychelles created the Ministry of Finance, Trade and Blue Economy (MFTBE) to lead and develop the Blue Economy Concept. The National Blue Economy Roadmap is being developed and the main results expected are:

- Increase investment in existing ocean based economic sectors (particularly fisheries and shipping) to realize greater value from the existing resource base.

- The development of new economic sectors based on existing marine resources (marine based aquaculture, offshore petroleum and marine biotechnology creating products and processes).
- Greater protection for Seychelles ocean space and resources through better coordination across different sectors, application of protective measures and greater use of surveillance and enforcement tools.
- New research, innovation and generation of knowledge about Seychelles ocean space and management needs.

The enabling conditions for the successful implementation of the Blue Economy Roadmap are:

- A healthy, resilient and productive marine environment
- An Ocean governance
- Technology, research and innovation development
- Business development, investment and finance
- Marine surveillance and enforcement
- Education and capacity building
- Infrastructure.

Important synergies could be developed with BIOFIN and the blue economy in terms of resource mobilization and costing.

#### ✓ **Seychelles Mariculture Master plan**

The development of mariculture will enable Seychelles to diversify the economies of fishing communities and improve the resilience of their livelihoods in the face of climate change. 16 sites have been identified around the inner islands with a total surface area of 52 square kilometres. The fish species being considered for the farming are mainly grouper and yellowtail species. It will involve hatchery facilities with brood stock (spawning adults) for reproduction. Fish that are produced will be kept in cages until they reach market size. Potential production value could be in excess of US\$ 100 million (estimated at SCR1200 million). The Master Plan provides the guidelines for private sector participation in the aquaculture subsector of fisheries.

#### ✓ **National Parks and Nature Conservancy Act (1967)**

The 1969 National Parks and Nature Conservancy Act succeeded the 1967 PA Act and it became the more relevant legislation for protected areas (National Parks and Special Reserves). It remains the primary piece of legislation for protected areas in the country and it regulates the establishment, management, use and development of the categories of protected areas. The 1967 Protected Areas Act remains in force but it is used primarily for reasons of national and internal security (i.e. to exclude persons/public access from certain areas), but it has however also been utilized to designate PAs for environmental reasons. In addition, a National Parks and Nature Conservancy Ordinance (1971, amended in 1973 and

1982) covers the establishment of National Parks and Special Reserves. It is under currently being reviewed and will be based on the PA policy (2013).

In addition, the **Wild Animals and Birds Protection Act** (and associated regulations) enables the protection of a number of keystone species in Seychelles, in particular all native bird species, turtles, whale sharks and giant tortoises. It also provides for the establishment and management of Nature Reserves (under its 1996 regulations) for the purpose of protecting land and sea bird species.

#### ✓ **National Protected Area Policy (2013)**

The Protected Area Policy was adopted in 2013. It meets the obligations of membership in the CBD and the Program of Work on Protected Areas and align the national PA nomenclature with the international IUCN categories. The PA policy designates the MEECC as the high policy body with the overall responsibility for the network of marine and coastal protected areas. All institutions managing PAs will be regulated by specific legislation governing respective PAs. The DoE is responsible for overseeing the implementation of the legislation specific to protected areas at national level.

A National Advisory Committee on Protected Areas and Conservation was established under the 2013 PA policy; this committee will act as a coordinating body for the management of protected areas. Under Commitment 12 of the 2013 PA Policy, the Government of Seychelles is “committed to support new initiatives to find sustainable financing for the protected areas system. This will include an examination of innovative revenue generation and incentives”.

#### ✓ **National Biodiversity Strategy and Action Plan (2015-2020)**

The National Biodiversity Strategy and Action Plan 2015-2020 (NBSAP-2) has been prepared through an extended process of stakeholder consultation and approval. The NBSAP incorporates peer review comments for BIOFIN team and the NBSAP forum. The NBSAP is aligned to the Aichi targets. Government in June 2015 formally endorsed the NBSAP. Sustainable financing has been identified as a key issue for the implementation of the NBSAP. An indicative list of existing domestic, international and innovative sources funding to support biodiversity conservation is included.

The NBSAP identified 31 priority projects to be implemented within the timeframe.

Several priority projects proposed will directly contribute to improve sustainable financing of biodiversity conservation such as:

- Seychelles protected areas finance project
- Biodiversity awareness and education project
- Seychelles biodiversity and ecosystems services valuation project
- Payment for ecosystem services project

- NBSAP financing action plan (BIOFIN)
- Establishment and operation of NBSAP implementation unit.

#### ✓ **National Climate Change Strategy (2009)**

The National Climate Change Strategy (2009) addresses the priorities for addressing climate change impacts in Seychelles, including biodiversity and forestry sectors. The NCCS focused on the following key thematic/sectoral areas: agriculture, fisheries, human health, water resources, and coastal zone including coastal tourism and forest fire. The NCCS has a strong focus on increasing capacity in climate and climate change impact assessment expertise and information. A key theme of the NCCS is that “research and monitoring are fundamental to the understanding of the implications of climate change to the Seychelles. However, no specific actions relating to biodiversity conservation were included in the strategy.

#### ✓ **Public Private Partnership Policy**

Government has in 2015 approved the provisional PPP Policy with the aim of involving private investors and operators in key economic, social and environmental sectors. However, there is no legislation in place as yet and Government has received Technical Assistance from the ADB for purposes of designing the PPP Legal, Regulatory and Operational Framework. This includes the development of a comprehensive set of rules and implementation guidelines for PPPs in Seychelles based on the general objectives of the GoS PPP Policy. It should be underscored that as part of its PPP Policy, Government has retained biodiversity conservation as one of the key sectors having potential for PPP.

#### ✓ **Town and Country Planning Act (1972)**

The **Town & Country Planning Act, 1972 (Cap 237)** established the Planning Authority, which has the mandate of regulating and controlling all development of land within the country. Section 3 of the Act provides that no person shall carry out any building operations without a planning permission issued by the Town and Country Planning Authority.

Section 4 makes provisions for the preparation and adoption of a development plan for the whole of Seychelles. Such a development plan (or **Land Use Plan**), which may include maps, shall specify areas for roads, public buildings, and nature reserves, including open spaces was never endorsed by government. The plan should be reviewed every five years.

One of the conditions for development is that no building should be erected within **25 metres from the high water mark**. This condition is mainly put to protect the sand dunes on the coasts from severe erosion. This is however, only a policy decision and should be incorporated into the law.

✓ **The Land Reclamation Act (1961)**

The **Land Reclamation Act, 1961 (Cap 106)** lays down the procedure to follow for reclamation of land by filling any foreshore. A person who believes that the proposed reclamation may adversely affect either the property owned, or public rights or the natural beauty of the coastal area may object to the reclamation as part of the consultative Environmental Impact Assessment Process.

✓ **The Beach Control Act (1971)**

The **Beach Control Act, 1971 (Cap 14)** makes provision for preserving the natural amenities of the seashore and inshore waters and for protecting the peaceful enjoyment thereof.

✓ **The Removal of Sand and Gravel Act (1982)**

The **Removal of Sand and Gravel Act, 1982 (Cap 203)** provides for the licensing and control of the removal of sand and gravel. Following the impact of the activity on beaches, a ban on removal of sand from the beach and the plateau on the Seychelles have been imposed. However, removal of gravel from rivers is still permitted subject to authorisation under the Act.

During successive dredging and reclamation projects in the last three decades, the government has created coral fill stockpiles with the principal aim of replacing beach or plateau sand for purposes of meeting the requirements of the building industry.

The government has also encouraged the production of rock sand from granite quarries also as alternative to beach and plateau sand.

Such indirect protection of beach and plateau sand has been achieved at significant financial cost and the government may have been selling coral fill below the real cost presumably with the aim of keeping the price of building materials affordable.

✓ **The State Land and River Reserves Act (1903)**

The **State Land and River Reserves Act (1903) (Cap 228)** protects state land, rivers and streams in the Seychelles Islands. It also describes the type of activities which are prohibited within 50 feet from the river without authorization. Rights of a person bordering rivers are also defined in this Act.

The cost of enforcing this Act should be passed on through the charge for EIAs in the case of all developments requiring EIAs.

✓ **Praslin Island 50m Contour Line Development Restriction Policy**

In addition to the above legislative measures, the current Government policy restricts development to the coastal zone especially for Praslin Island where there is a restriction on development above the **50m contour line**. This is only a policy decision and needs to be regulated in order to have legal status.

### ✓ **National Land Use Plan**

There is as yet no recent National Land Use Plan approved by Cabinet, although Land Use Plans have been completed for the district of Anse Royale and the islands of Praslin and La Digue.

It is paramount that the National Land Use Plan be completed and enforced soonest possible and that such National Land Use Plan be in line with the vision for Seychelles as reflected in the Seychelles Strategic Plan 2016-2040 once the latter will have been approved.

Furthermore, the Town and Country Planning Act 1972 makes reference to such Land Use Plan which should be reviewed every 5 years.

In the absence of a National Land Use Plan, there is continued pressure on forests and terrestrial parks (for housing and public infrastructure) as well as marine parks (for tourism development projects). The aborted large hotel resort which had been proposed to be implemented in the Cap Ternay Marine Park is a typical example of the potential encroachment of PAs that could take place without a Land Use Plan having a legal framework.

### ✓ **National Development Strategy NATIONAL DEVELOPMENT STRATEGY**

The National Development Strategy (NDS) replaced the Medium Term National Development Strategy (MTNDS) in 2014.

### ✓ **Agriculture Development Strategy**

The key aspects of the Agriculture Development Strategy are:

- To engage local and international partners to sustainably combine scarce economic resources, by exploiting all areas in which Seychelles has comparative advantages with a view to produce a wide range of affordable basic foods to meet as far as possible year round national requirements, thus higher national food security, with all inputs for proper nutrition.
- Seychelles attains the desired food security through the agricultural production targets which have been set in the strategy thus producing year round a wide range of basic foods which are afforded by all Seychellois, through sustainable means and allowing proper nutrition.

The main objectives and components of the Strategy are:

- Human resource development and training for crop and livestock production

- Livestock development
- Agricultural inputs and supply
- Crop development
- Agricultural land use and management

#### ✓ **Food Security Strategy**

The key objectives and components of the Food Security Strategy are:

- Agricultural land management
- Agricultural Inputs and supply
- Agricultural Infrastructure
- Institutional support
- Human resource development

#### ✓ **Food and Nutrition Security Policy**

The Seychelles Food and Nutrition Security Policy (FNSP) is specially developed to align and strengthen the country's capacity and ability to deliver on its food and nutrition security objectives and targets in a manner that ensures efficiency and sustainability in resource use, able institutions and human capacity and resilience in the face of internal and external shocks as well as progressive change in key parameters such as population size.

Specifically, the policy will enable Seychelles Government to provide leadership with regard to:

- i. Ensuring program and investment interventions that are consistent and supportive of short and long term development and growth priorities, goals and objectives
- ii. Ensuring coordination, coherence and comprehensiveness in strategies and programs on food and nutritional security
- iii. Strengthening resilience and capability within Seychelles' internal systems to anticipate and respond to internal and external shocks and changes in the food systems, including weather and climate change extremes, price volatility, etc...
- iv. Strengthening accountability in food and nutrition security support and facilitating systems including inclusive decision-making and reinforcement of collective responsibility among the various players and stakeholders.

#### ✓ **Seychelles National Agriculture Investment Plan (SNAIP)**

The SNAIP goal, objectives and expected results are as follow:

Development Goal: Seychelles is producing enough food to complement imports and ensure availability of food to meet the country's food security and nutrition needs and reduce risks and vulnerability in the event of local and/or external factors which may limit or hinder access to global food markets (NFSNP, 2013).

The following are SNAIP's specific objectives:

- (i) Factors of production (land and water) secured and sustainably used;
- (ii) Factors of productivity (land, labour, capital) in forestry, crops, livestock and fisheries sustainably enhanced;
- (iii) Commodity-specific value chains developed and functioning (including agro-processing and local market linkages);
- (iv) Fisheries and aquaculture revenue is increased while preserving the sustainability of the resource base;
- (v) Facilitate and sustain a favourable legal, policy and institutional environment to enable a private sector driven local agricultural system, providing viable and predictable needs for business as well as social benefits for the public;
- (vi) An appropriate knowledge and technological support system strengthened and supporting enhanced agricultural transformation and performance, and;
- (vii) Institutions in the sector are strengthened and improved coordination allows MF&A and its agencies/authorities to provide effective service delivery.

The Government of Seychelles has embraced the Comprehensive Africa Agriculture Development Programme (CAADP) as a policy framework to guide and facilitate the desired policy and technical decisions and actions to transform the Seychelles' agricultural sector to one that effectively provides for the needs of the country to have a credible local food supply base which can mitigate immediate adverse consequences of failure in import supply systems. CAADP implementation is expected to bring its value addition and impact through its influence in the following aspects: (a) strengthening of institutional and human capacity to plan, execute and manage agricultural development investment programmes; (b) enhancing adoption of improved technologies impacting directly on agricultural productivity and production and value addition/agro-industry; (c) brokering increased investment financing as well as link to ensuring best returns on investments and (d) enhancing capacity to review and integrate in national policy and programme design regional and global factors and policies.

#### ✓ **Seychelles Tourism Master Plan**

The main Goals and Objectives of the Tourism Master Plan are as follows:

To consolidate the industry and to make tourism development an integral and coherent component of the Seychelles Sustainable Development Policy.

To reaffirm and further root the commitment to sustainable and responsible tourism at each step of the tourism supply chain with the balanced objectives of economic empowerment, environmental preservation, and socio-cultural integration (World Summit on Sustainable development, Johannesburg, 2002).

To secure and foster national ownership of the tourism industry in a way that promotes tourism as a genuine source of economic empowerment for the people of Seychelles, and that ensures equitable development opportunities for all Seychellois in the sector.

## 5. Funding Mechanisms for Biodiversity Conservation

The table below presents a review of funding mechanisms for biodiversity conservation in the context of Seychelles.

Funding mechanisms	Constraints	Opportunities	Potential
<p><b>National Budget</b></p> <p>Total Annual National Budget around 6 billion SCR</p> <p>Total Annual budget for biodiversity conservation around 2% of total national budget</p>	<ul style="list-style-type: none"> <li>National budget allocation towards biodiversity conservation remains limited</li> <li>There is not yet a programme based budget in place</li> <li>There is no system in place to track biodiversity conservation expenditures in the national accounting system</li> <li>There are a multitude of national plans and strategies related to biodiversity which make it difficult for the ministry of finance to determine financial needs</li> <li>There is no natural accounting system in place which makes it difficult to monitor the state of natural capital</li> <li>There are subsidies to production sector that maybe harmful to the environment</li> </ul>	<ul style="list-style-type: none"> <li>Government is introducing programme based budgeting process which should be in place for the entire government by 2017.</li> <li>Government is strengthening coordination mechanism between agencies with the reactivated of SSDS steering committee</li> <li>There is an opportunity to further mainstream biodiversity conservation into the national budget process by improving the NBSAP and its costing to become a holistic but realistic programming and budgeting tool.</li> <li>Government is revising subsidies to the fishery sector</li> </ul>	<p>Seychelles being a high income country potential for government financing for biodiversity conservation is high and remains the most sustainable long term financing mechanism</p>
<p><b>Environment Trust Fund</b></p> <ul style="list-style-type: none"> <li>Co-chaired by ministry of Finance and Ministry of</li> </ul>	<ul style="list-style-type: none"> <li>Environmental levy was reduced from 25 SCR to 15 SCR</li> <li>Out dated level of fees and</li> </ul>	<ul style="list-style-type: none"> <li>Application procedures very simple</li> <li>Application open to government, NGOs and</li> </ul>	<p>Potential for this funding mechanism will remain limited if governance of</p>

<p>Environment</p> <ul style="list-style-type: none"> <li>• Sources of funding: environmental levy on water bill (15 SCR /monthly bill, levy on sales of sooty tern eggs (0.25c/egg); fees, fines collected by DOE (EIA fee, license to cut trees, etc.) and donation</li> <li>• Estimated annual Budget 5-6 million SCR in 2014 which is entirely spent</li> </ul>	<ul style="list-style-type: none"> <li>• Donation limited because tax incentives to private sector unclear</li> <li>• Award process not very transparent</li> <li>• Monitoring and evaluation system weak</li> <li>• Limited awareness of CBOS of the existence of the fund</li> </ul>	<p>communities for a broad range of environmental project</p> <ul style="list-style-type: none"> <li>• Environment protection Act is being revised and there is a need to actualise fees/fines structure</li> <li>• Explore the possibility to integrate <b>biodiversity off settings</b> mechanism in the revision of the EPA</li> </ul>	<p>the trust fund is not strengthened</p>
<p><b>Removal of harmful incentives to production sector</b></p>	<ul style="list-style-type: none"> <li>• Harmful incentives in the agriculture and fishery sectors exists</li> <li>• Economic performance of the sectors are poor and they have important socio economic impacts</li> </ul>	<ul style="list-style-type: none"> <li>• Possibility to realign incentives with sustainable practices</li> </ul>	<p>Potential medium to resistance of producers</p>
<p><b>Seychelles Conservation and Climate Change Adaptation Trust Fund (SeyCATT)</b></p> <ul style="list-style-type: none"> <li>• Negotiation lead by TNC of a debt swap for a total amount of 31 million USD with Paris Club</li> <li>• Expected environmental outcome is 30% of the EEZ declared protected areas</li> <li>• Estimated annual budget available for biodiversity conservation 600,000 USD (7.2 million SCR)</li> </ul>	<ul style="list-style-type: none"> <li>• Legislation of the SeyCATT is not yet being finalised</li> <li>• Lengthy and difficult consultative process for delimiting 30% of the EEZ as protected Areas.</li> <li>• Limited funding available for managing a large protected area of 420,000 km<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Potentially Independent, transparent, accountable biodiversity conservation financing mechanism</li> <li>• Besides marine conservation, the trust fund offers potential for terrestrial conservation</li> </ul>	<p>High Potential to raise additional international funding</p>

<p><b>Entrance fees to protected areas</b></p> <p>Tourists are paying entrance fees to protected areas which vary from site to site (200SCR-2400SCR)</p> <p>Estimated revenues generated by PA sites is around 4 million USD per year (48 million SCR) for a total area of 55,000 Ha in 2014</p>	<ul style="list-style-type: none"> <li>Protected areas are managed by different private and government institutions with very limited coordination mechanism</li> <li>Only 67% of revenue generated by Protected areas sites are retained in the PA system</li> </ul>	<ul style="list-style-type: none"> <li>Opportunities to improve management effectiveness of PA system.</li> <li>Opportunities to increase revenue generation at PA site level</li> <li>Opportunity to increase revenue retention by PA system</li> </ul>	<p>Potential high due to booming tourism sector</p>
<p><b>Fishing vessel licensing fees</b></p> <p>The Ministry of Agriculture and Fisheries is collecting licensing fees for EU, Non EU and local fishing vessels; Estimated annual revenue 120 million SCR in 2015</p>	<ul style="list-style-type: none"> <li>Fees are remitted to the consolidated fund of the government</li> <li>Number of registered vessels are decreasing over the years</li> <li>Overfishing on the plateau of Mahé</li> </ul>	<ul style="list-style-type: none"> <li>There is a need to revise incentives and taxes to the fishery sector to insure sustainable use and increase the value added of marine resources</li> <li>Explore the possibility to introduce the blue bond concept to finance the blue economy</li> <li>Explore the possibility to review the fishery rights allocation</li> </ul>	<p>Potential high for sustainable use of biodiversity funding mechanism</p>
<p><b>Biosecurity fees</b></p> <p>Animal and plant health section and the import division of Ministry of Finance are collected inspection and import permit fees for importation of goods</p> <p>Estimated annual fees collected</p>	<ul style="list-style-type: none"> <li>Fees are remitted to the consolidated fund of the government</li> <li>Biosecurity services are not functioning adequately due to limited capacity in the context of an increased trade valued at 12 billion SCR IN 2011 and</li> </ul>	<p>There is a need to develop a cost recovery fee structure for biosecurity services</p>	<p>Potential is high for establishing such funding mechanism which will have an important impact on biodiversity conservation</p>

<p>90,000SCR in 2013</p> <p>Export permit and export inspection fees for fish are collected by Seychelles Bureau of Standard</p> <p>Estimated revenue collected 680,000 SCR in 2013</p>	<p>increased arrivals at airport 248,000 passengers</p> <ul style="list-style-type: none"> <li>• An Animal and plant biosecurity Act are being approved by the government in 2013 which proposes the setting up of biosecurity contingencies fund</li> </ul>		
<p><b>Excise tax</b></p> <p>Excise tax is a levy on excisable goods for public health, moral and environmental protection. It is imposed on four items (vehicles, tobacco, alcohol and petroleum) regardless of whether they are produced locally or imported. The items related to environment protection are vehicles and petroleum</p> <p>Estimated amount is 260 million in 2015</p>	<ul style="list-style-type: none"> <li>• Fees are remitted to the consolidated fund of the government</li> <li>• At the moment there are no discussions on the matter</li> </ul>	<ul style="list-style-type: none"> <li>• The increase of the number of vehicles is exponential in Seychelles</li> </ul>	
<p><b>Payment for ecosystem services (PES)</b></p>	<ul style="list-style-type: none"> <li>• No framework for PES in Seychelles</li> <li>• Land area is small and potential for terrestrial carbon sequestration limited</li> <li>• Methodology for carbon sequestration by marine area not yet globally approved</li> </ul>	<ul style="list-style-type: none"> <li>• Potential for water based PES (water bottling, water usage by farmers)</li> </ul>	<p>Limited potential for PES in Seychelles</p>
<p><b>Corporate Social Responsibility tax (2013)</b></p> <p>The rate payable by</p>	<ul style="list-style-type: none"> <li>• The CSR tax is remitted to the consolidated fund</li> <li>• No record of CSR</li> </ul>	<ul style="list-style-type: none"> <li>• Explore the possibility to create a separate fund for CSR paid to Seychelles revenue</li> </ul>	<p>Important financing mechanism for biodiversity</p>

<p>a business with a turnover of SCR1, 000,000 or over is 0.5% on the total turnover payable to the Seychelles Revenue Commission. Business have the option to pay 0.25% in cash or in kind directly to an approved fund, or organization The remaining 0.25% is payable to the Seychelles Revenue Commission. The Corporate Social Responsibility Tax is financing community development and environmental projects</p> <p>Estimated revenue in 2015 98 million SCR</p>	<p>paid to approved organizations</p> <ul style="list-style-type: none"> <li>No minimal budget allocation made for biodiversity conservation projects</li> </ul>	<p>commission</p> <ul style="list-style-type: none"> <li>Improve recording of use of CSR tax</li> </ul>	<p>conservation for NGOs and CBOs and other approved organisation</p>
<p><b>Direct contribution from private sector</b></p>	<ul style="list-style-type: none"> <li>Lack of financial and non-financial incentives framework for Private sector investment in biodiversity conservation</li> <li>Lack of Public Private Partnership legal framework for sector contributing to biodiversity conservation</li> </ul>	<ul style="list-style-type: none"> <li>Private sector in tourism and fisheries highly dependent from biodiversity</li> <li>Long experience in the private sector in contributing in biodiversity conservation</li> <li>Adoption of a PPP policy in 2015</li> <li>Explore the possibility to introduce a compulsory environmental levy by bed night to finance biodiversity conservation on Mahé and Praslin</li> </ul>	<p>High potential for this biodiversity financing mechanism</p>
<p><b>International donors</b></p>	<ul style="list-style-type: none"> <li>Not predictable</li> </ul>	<ul style="list-style-type: none"> <li>Seychelles</li> </ul>	<ul style="list-style-type: none"> <li>Potential</li> </ul>

<b>funding</b>	<ul style="list-style-type: none"> <li>• Will diminish because of the high development status of Seychelles</li> <li>• Seychelles is only eligible to a limited number of international funding mechanism</li> </ul>	recognized as a highly vulnerable small island state <ul style="list-style-type: none"> <li>• Seychelles internationally recognized for its conservation effort</li> <li>• Important potential linkages with climate finance</li> </ul>	medium as Seychelles continue to developed <ul style="list-style-type: none"> <li>• Important financing mechanism for NGOs and CBOs</li> </ul>
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## 6. Sectoral Analysis

### 6.1 LAND USE AND HOUSING; BUILDING AND CONSTRUCTION

#### 6.1.1 LAND USE AND HOUSING

Seychelles has a tiny total land area of 455 square km<sup>2</sup>, with over 95% of its population living on the three main islands of Mahé, Praslin and La Digue which together have a mere 205 square km. Over half of this area is allocated to national parks, the largest of which is the Atoll of Aldabra followed by the Morne Seychellois National Park on Mahé.

In view of the mountainous landscape of all three granitic islands, there is a very narrow flat coastal belt along which most of the population live. Roads and other public infrastructure are also mostly located along this narrow coastal belt.

Over the last century, pressure for land in the capital Victoria resulted in land reclamation initially close to the very centre of the City. The main land reclamation projects took place as from the late 1960s in order to accommodate the International Airport and the Commercial Port.

Since then, there has been a series of land reclamation projects on Mahé, Praslin and La Digue, the largest and most recent of which was the Mahé East Coast Reclamation Project in early 2000. This included reclamation of Eden Island, Perseverance Island, Ile du Port, Aurore Island and Ile Soleil. Land on Perseverance has been mostly allocated to low-income housing projects while that on Eden Island has been used for development of exclusive villas.

In tandem with the Mahé East Coast Reclamation Project, there were also dredging and reclamation projects on Praslin and La Digue in order to improve Port facilities and sea access. Large stockpiles of landfill were also created for future reclamation and backfill projects.

Although land reclamation has impacted negatively on marine biodiversity and ecosystems, it may be argued that it was not only the most pragmatic solution from an economic perspective but also from the point of view of conservation.

Housing and related infrastructure (roads, utilities, schools and health care) has been the single largest pressure on land on Mahé, Praslin and La Digue during the last 40 years, reflecting demographics, the baby boom of 1960s as well as Government's will to assist low income families to own their own house.

While there are state owned outlying islands on which new communities could have been developed, this would have not only been prohibitive in terms of economies of scale and logistics, but also there would have been little incentive for Seychellois in search of employment to relocate to such communities.

Alternatives to the land reclamation projects might have included encroachment of terrestrial national parks, development of areas with important slopes or to allow high rise buildings in order to cater for demand for housing. In all cases, such alternatives would have had a negative environmental impact.

Apart from reclamation, the other major challenges in Seychelles relative to land use are that there has been virtually no land use or urbanisation plans – although this is currently being done as part of the Seychelles Strategic Plan 2016-2040. Only three districts in Seychelles have land use plans but even in these isolated cases, the plans are not being properly enforced.

In the absence of well thought-out land use and urbanisation plans, there have been a number of poorly planned developments, possibly typified by the Providence Industrial Estate (PIE) in the 1990s. The PIE is located next to the only Solid Waste and Landfill Centre. As a result, most of PIE is subject to olfactory (odour) pollution.

Furthermore, due to pressure on land for commercial activities in general, the PIE, which was originally planned for SMEs, has by default become the second largest trading zone outside of Victoria. The PIE has also accommodated warehousing facilities especially for all of the main construction companies who have included dormitories within such facilities for the foreign construction workers.

All such developments have compounded sanitary and waste management difficulties on PIE besides resulting in road congestion, all of which are negatively impacting on biodiversity.

Even though a central sewerage system was created in the 1990s for Greater and Central Victoria, the capital city still suffers from a lack of proper urban planning with over congested roads and inadequate parking facilities.

There has been little effort to decentralise a number of public services e.g. civil status, immigration, payment of public utility bills, postal services. This would have mitigated pressure on the road network in and around Victoria, thereby reducing carbon footprint of vehicles.

### **6.1.2 BUILDING AND CONSTRUCTION**

Although Regulations under the 1972 Town and Country Planning Act prescribe buffers for development on the coastline (20 metres from high water mark) and next to rivers, these are often flouted by developers.

While Environment Impact Assessments (EIAs) are expected to be carried out for all development projects, these are again not always abided to or monitored during and after project implementation. For each project, the promoter outsources a private service provider to carry out the EIA as per the TOR provide the Department of Environment (DOE) which is expected to review and monitor the EIA. In the case of large project, the public have access to the EIA.

The Planning Authority approves all housing and building projects but its role is often limited to ensuring that buildings are built within prescribed limits relative to the high water mark and riverbanks and in conformity with local architectural specifications. The Planning Authority and the Department of Environment are also expected to ensure that building projects conduct and comply with EIAs.

Although most building materials such as cement and steel are imported, there are local quarries, which are mined for stone, aggregate and rock sand. While in the past builders used beach sand, and subsequently sand quarries close to the coast, these have been phased out with the advent of rock sand and crushed sand from the reclaimed coral fill stockpiles.

To the extent that some of these quarries are located close to residential areas or natural habitat for indigenous species, they impact negatively on both human beings and biodiversity a) by destroying the natural vegetation and b) through noise and dust pollution. There are provisions and regulations in place for the vegetation to be restored once a mine is closed but these are rarely implemented and enforced due to quasi-monopolistic nature of quarry operators.

Oil is another product that could be potentially extracted in Seychelles, oil exploration and seismic surveys having been carried out since the 1970s. Even if no oil has been drilled, as yet within the Seychelles EEZ, there is evidence from past test drills of shale and hydrocarbon deposits along the continental shelf.

Sound waves from seismic surveys affect the whale community. But the biggest threat to biodiversity from oil exploration and drilling would be potential oil spills.

### **6.1.3 MAINSTREAMING LAND USE, HOUSING, BUILDING & CONSTRUCTION INTO THE PLANNING PROCESSES**

Besides the absence of a Master Land Use Plan, there is a general lack of mainstreaming initiatives to bring land use and housing into the overall economic planning process. (This may possibly be addressed in the ongoing 2016-2040 Seychelles Strategic Plan.) In particular, there is the dire need to ensure that planning for future energy, water, waste

water and solid waste management will meet requirements of existing and future building and housing projects. Otherwise, the lack of such utilities in the future could impact negatively on biodiversity and ecosystems (cf Chapter on Utilities and Waste Management).

In view of the competing demands for land, and in the absence of systematic Land Use Plans, over 80% of state owned agricultural land has been reallocated to other sectors - mostly housing and public infrastructure.

This has invariably had significant impact not only on local agricultural production (with shift towards intensive farming) but also on biodiversity conservation. In a number of cases, unutilised land, which was previously earmarked for agriculture, had been critical habitat for biodiversity and ecosystems.

Overall, the sharp decline in agricultural production has resulted in increased imports for meat, fruit and vegetables, which in view of lack of enforcement of the Biosecurity Act has further exposed Seychelles to invasive alien species (cf Chapter on Agriculture).

### **Negative Practices**

- ✓ The absence of a Land Use Plan has resulted in a) poorly planned urbanisation including housing, roads, utilities and waste management e.g. PIE, b) reallocation of agricultural land to other sectors, and c) lack of decentralisation of key public services. (refer to Policy section for more details)
- ✓ The Town and Country Planning Act has not been properly enforced and EIAs are also not always complied with.
- ✓ The absence of properly mainstreaming land use and housing into the overall economic planning process may result in energy, water, waste management requirements not being sufficiently met in the future and additional costs for retrofitting systems.
- ✓ Dredging and Land Reclamation have impacted negatively on biodiversity conservation and ecosystems, with unavoidable damage to coral and other marine life especially during the dredging process, but also from siltation thereafter from reclamation on sea.
- ✓ Quarrying of stones impacts negatively on biodiversity and ecosystems by destroying natural habitat and through noise and dust pollution.
- ✓ Oil exploration and seismic surveys within Seychelles EEZ may negatively impact on marine biodiversity.

### **Positive Practices**

- ✓ The ongoing drafting of the 2016-2040 Seychelles Strategic Plan augurs well inter alia for Land Use Planning as well as its mainstreaming into the overall economic planning process.
- ✓ By opting for reclamation projects especially for purposes of meeting housing requirements, Seychelles has avoided alternatives such as outer island development, encroachment of terrestrial national parks, and high-rise buildings all of which may have been even more detrimental to the environment.

- ✓ Recent dredging and reclamation projects were done in conformity with EIAs. In particular, filter screens and rock armouring were used to mitigate siltation and its damage to coral and other marine life.
- ✓ The Planning Authority normally ensures that buildings are compliant with prescribed regulations including EIAs where applicable, even if monitoring and regulations enforcement could be improved.
- ✓ There are provisions for rock quarries to be compliant with prescribed regulations, including restoration of destroyed habitat.
- ✓ Government has undertaken as part of the Marine Spatial Planning (MPS) project to allocate 30% of Seychelles Exclusive Economic Zone as Protected Areas, within which fishing and oil exploration would not be allowed.

### Policy Framework

- ✓ The **1972 Town and Country Planning Act** is the main legal instrument to control Land Use and Housing in Seychelles.
- ✓ The **Seychelles Sustainable Development Strategy (SSDS) 2012-2020** has 14 programmes: 12 thematic areas including land use and housing. The SSDS seeks to mainstream the three Rio Conventions (Biodiversity, Climate Change and Desertification) in the Seychelles context. However, the SSDS has so far not been timely implemented due to lack of capacity and other resources.
- ✓ In 2015 Government has approved the second **National Biodiversity Strategy and Action Plan (NBSAP) 2012 – 2020** which maps out the vision and action plan for biodiversity conservation.
- ✓ Since late 2014, the Government has been developing the **Blue Economy Initiative** and in February 2015 this initiative became part of the portfolio responsibility of the **Ministry of Finance, Trade and Blue Economy**.
- ✓ As part of the **Debt for Climate Change Adaptation Swap**, the Government has launched a **Marine Spatial Planning (MPS)** project. Under the MPS Government is undertaking to set aside 30% of **Seychelles Exclusive Economic Zone (EEZ)** as **Protected Areas**.
- ✓ In 2014 the then Ministry of Finance, Trade and Investment launched the **National Development Strategy (NDS)**
- ✓ As previously mentioned, the Government has commissioned the preparation of the **Seychelles Strategic Plan 2016-2040**.
- ✓ There is the need to mainstream Land Use and Housing as well as the MPS into all of the above plans, which in turn need to be more streamlined and better coordinated.

### Institutional Framework

- ✓ **The Ministry of Land Use and Housing (MLUH)** has overall responsibility for land use, survey and housing in Seychelles and is the parent ministry for the **Planning Authority**.
- ✓ The **Planning Authority** is assisted by the **Department of Environment** in implementing EIAs and in ensuring that buildings and construction are compliant with prescribed Regulations.
- ✓ MLUH also oversees use and boundaries of Seychelles coastal zone (including Seychelles territorial waters) and **Seychelles Exclusive Economic Zone**. In this connection, MLUH works in close collaboration with the **Ministry of Environment**,

**Energy and Climate Change (MEECC), the Seychelles National Parks Authority (SNPA), the Seychelles Fishing Authority (SFA) and the Ministry of Foreign Affairs (MFA). (Refer to institutional table for more information on capacity limitations)**

- ✓ The majority of **NGOs** involved in land use are those engaged in conservation. These include Seychelles Island Foundation (SIF), Island Conservation Society (ICS), Sustainability for Seychelles (S4S), Nature Seychelles, Marine Conservation Society of Seychelles (MCSS), Green Island Foundation (GIF).

## **6.2. UTILITIES AND WASTE MANAGEMENT**

The three main islands of Mahé, Praslin and La Digue are relatively well served in terms of electricity, LPG, water and waste management. Over 95 % of the population on these islands has access to potable water and electricity provided by the Public Utility Company (PUC) while LPG is supplied to the population through distributors across all three islands.

There are two centralised sewerage systems on Mahé, the main one catering for Central and Greater Victoria and the second one the Beau Vallon area. The rest of Seychelles use septic tanks or, in the case of hotels, have their own sewerage plants.

Solid waste management is outsourced to a private company STAR on the islands of Mahé and Praslin; in the case of La Digue, the La Digue Development Fund carries out solid waste management.

Unfortunately, municipal solid waste is not sorted at source and almost none of the solid waste is recycled. Plastic and other toxic waste, which are highly polluting consequently end up in the Solid Waste Landfill Centre which is located next to the lagoon.

The Eco Schools Programme of the Ministry of Education comprises solid waste management and 3Rs concept. Schoolchildren are encouraged to implement such concepts via Wildlife Clubs.

Almost all the electricity generated by PUC is from diesel / fuel oil, notwithstanding the fact that in recent years Government, together with the Seychelles Energy Commission (SEC) and PUC have jointly implemented a number of renewable energy projects and schemes.

A wind turbine project consisting of 8 wind turbines of 750KW each was implemented in 2013 on two of the reclaimed islands within the harbour area. This wind farm currently meets 2-3% of the country's energy requirements and represents 7% of the installed capacity.

Also in 2013, the Seychelles authorities facilitated solar generation from grid tied rooftop PV. This scheme has proved relatively successful and it is expected that the Government may encourage further development of solar generation if and when it adopts a new Feed-In Tariff Policy to replace the existing Gross Net Metering Policy.

The tourism industry has also been pioneering the deployment of solar generation on outer island resorts.

The other potential forms of renewable energy that have been identified as suitable for Seychelles include micro hydro and waste to energy (biomass / municipal solid waste and biogas). Waste to energy, if done correctly, could both reduce the land fill challenges and reduce importation of fossil fuels.

Government is also exploring ways and means of improving energy efficiency across all sectors (commercial, household and public sector) on Mahé, Praslin and La Digue. An energy mapping study for large commercial entities is currently ongoing, as is an energy baseline study for energy efficiency.

There are currently no standards or restrictions for importation of electrical appliances in Seychelles. Customs duties (trades tax) and VAT are identical irrespective whether appliances are energy efficient or not. As such, the local importers and suppliers of electrical appliances are not incentivised to import energy efficient appliances.

In 2015, the Government began provided fiscal incentives to promote electric and hybrid vehicles by way of lower taxes on such vehicles.

With regards to water, the Government has failed to invest in dams to harness rainwater which is in abundance throughout most of the year, but has instead invested in water desalination plants. However, during recent periods of drought, PUC has had to recourse to water restrictions across all three main islands.

While rainwater harvesting is encouraged at the level of the household sector, there are insufficient financial mechanisms to assist low income households to invest in water tanks. Most households' use treated rainwater to water their gardens.

### **Negative Practices**

- ✓ Given heavy reliance on fossil fuel oil for electricity generation, carbon emissions by the PUC are possibly high relative to Seychelles' small population, and in the process impacts negatively on climate change, even if the local impact of such carbon emissions on biodiversity is minimal.
- ✓ There are no fiscal incentives to promote energy efficient electrical appliances, with inefficient appliances resulting in higher carbon emissions and shorter lives of appliances adding to increase in solid waste.
- ✓ There is lack of rainwater harvesting and during the drought season, households and businesses are affected by water restrictions.
- ✓ There are no financial mechanisms to assist low-income households to invest in water tanks for rainwater harvesting from roofs.
- ✓ Most households' use treated water for gardening.
- ✓ The three desalination plants built so far have a higher carbon footprint than water dams would have had, even if dams perforce encroach on the natural habitat within the catchment areas.
- ✓ There is currently only limited recycling of municipal solid waste which remains largely unsorted and disposed en bloc at the Solid Waste Landfill Centre close to the

lagoon, with untold damage to the water table and marine biodiversity. There is only recycling of scrap metal and PET and local beer bottles.

### Positive Practices

- ✓ In recent years Government has been promoting renewable energy via wind farms and solar generation thereby reducing carbon emissions for conventional electricity generation.
- ✓ There are plans to also promote energy efficiency especially with regards to electrical appliances. Already in 2015 Government has reduced taxes on electric and hybrid vehicles.
- ✓ There are plans to promote waste to energy projects.
- ✓ Environment is included in schools' curriculum and the Eco Schools programme of the Ministry of Education promotes waste management using the 3 R's concept: reduce, reuse and recycle.

### Policy Framework

- ✓ The **Seychelles Sustainable Development Strategy (SSDS) 2012-2020** has 14 programmes including one for utilities and waste management. The SSDS seeks to mainstream the three Rio Conventions (Biodiversity, Climate Change and Desertification) in the Seychelles context. However, the SSDS has so far not been timely implemented due to lack of capacity and other resources.
- ✓ In 2014 the then Ministry of Finance, Trade and Investment launched the **National Development Strategy (NDS)**
- ✓ The Government has commissioned the preparation of the **Seychelles Strategic Plan 2016-2040, which** includes Chapters on Utilities and Waste Management.
- ✓ All Projects submitted to the **Planning Authority** require an EIA, which inter alia addresses waste management aspects.

### Institutional Framework

- ✓ The **Ministry of Environment, Energy and Climate Change (MEECC)** has overall responsibility for energy, water, sewerage and waste management.
- ✓ The **Seychelles Energy Commission (SEC)** is responsible for overseeing the energy sector and making policy recommendations to **MEECC**.
- ✓ **SEC** also promotes Renewable Energy (RE) and Energy Efficiency (EE) on behalf of **MEECC**.
- ✓ The **Public Utilities Corporation (PUC)**, which is a 100% owned Government entity, has responsibility for supply and distribution of water and electricity. **PUC** also operates the centralised sewerage plants.
- ✓ The **Ministry of Finance Trade and Blue Economy (MFTBE)** has portfolio responsibility for the Blue Economy initiative. MFTBE works closely with MEECC to develop financial mechanisms to promote RE & EE.

- ✓ The **Seychelles Bureau of Standards (SBS)** has responsibility for ensuring that standards are complied with regards to potable water, carbon emissions and disposal of toxic waste.

### **6.3. TRANSPORT, TRADE AND COMMUNICATIONS**

Seychelles has an International Airport and an International Commercial Port located on Mahé connecting the country to the rest of the world. The Commercial Port additionally serves as Port of Call for Cruise Ships. Mahé also has an Inter-Island Quay, a Fishing Quay and Marinas.

Praslin has an airport and a commercial port while La Digue only has a small all purpose port.

A number of outlying islands, especially those with resort hotels, are accessible by plane or by helicopter.

Mahé, Praslin and La Digue all have relatively good road network, although in the case of Mahé there is over congestion in and around the capital city.

The surge of vehicles especially on Mahé is not only resulting in over congestion, but also a non-negligible increase in carbon emissions. The prospect of electronic and hybrid vehicles, which are already being imported, bodes well in terms of mitigating carbon emissions, especially if ever combined with PV charging stations.

All three main islands are relatively well served in terms of public transport, except that the buses are too big for Seychelles' roads and are unappealing as a substitute to car owners from the point of view of reliability, security and comfort.

Seychelles imports the bulk of its meat, fruit and vegetables requirements and in the process becomes exposed to diseases and invasive alien species which can in turn either contaminate local livestock, fruits and vegetables or reproduce in the local habitat.

In view of lack of proper enforcement of the Biosecurity Act at ports of entry, Seychelles remains exposed to invasive alien species and diseases.

While the International Airport and Commercial Port are potentially enforceable points of entry for control of invasive alien species, the Marinas are less controllable notwithstanding that visiting yachts are expected to report for inspection upon first arrival.

Furthermore, even though arriving vessels may be inspected from inside, it would be virtually impossible to control invasive species (e.g. barnacles) that would be introduced into Seychelles' waters from the hull of the vessels or ballast waters as there are no ballast treatment facilities in the Seychelles. Such new species could easily reproduce and subsequently compete with indigenous species within the same habitat.

Yachts and other pleasure boats are responsible for considerable damage to corals and marine life due to inappropriate anchoring practices.

Planes and helicopters represent potential physical danger to birds, but also may impact negatively on birds through noise pollution.

Similarly, noise and other pollution from vessels negatively affects marine biodiversity and ecosystems.

There is poor control of waste (solid waste and sewerage) disposal from vessels even if there are prescribed regulations.

In 2012, a sea fibre optic cable became operational providing improved telephone and internet connection to the rest of the world.

### **Negative Practices**

- ✓ Importation of meat, fruit and vegetables may impact negatively on local livestock and vegetation via imported diseases and invasive alien species.
- ✓ Lack of proper enforcement of Biosecurity Act at Ports of entry due to insufficient capacity and other resources. This is especially the case for yachts mooring directly at marinas upon first arrival.
- ✓ Hulls and ballast water of arriving vessel may carry invasive alien species such as barnacles, which may reproduce in Seychelles territorial waters and negatively impact on marine biodiversity and eco systems.
- ✓ Noise pollution from aircrafts and vessels may adversely affect surrounding biodiversity.
- ✓ Poor control of waste disposal by vessels. Lack of enforcement of regulations.
- ✓ Increase in number of vehicles particularly on Mahé combined with over congestion exacerbates carbon emissions thereby affecting climate change.
- ✓ Public transport not yet a substitute for cars since buses are not perceived as providing sufficient reliability, security and comfort. Yet buses would be a much more energy efficient form of transportation with much lower carbon footprint than cars.

### **Positive Practices**

- ✓ Seychelles has recently passed Biosecurity legislation and it now needs to beef up resources to enforce such legislation.
- ✓ Government has introduced tax incentives for importation of electric and hybrid vehicles.
- ✓ Vehicles have to pass a road worthy license annually and among other things, they must comply with acceptable levels of carbon emissions
- ✓ Government has commissioned a study to explore possible solutions to over congestion of central and Greater Victoria.
- ✓ There are plans to address better control of yachts arriving in Seychelles, even if such control likely to remain tenuous.

### Policy Framework

- ✓ The main legal instrument for controlling invasive alien species and diseases arising from foreign vessels and aircrafts is the **Plant and Animal Biosecurity Act 2014**.
- ✓ There are Regulations under the **Environment Protection Act** prescribing acceptable levels of emissions by vehicles, vessels and aircrafts.
- ✓ Similarly, there are regulations to control waste disposal by vessels and aircrafts within the Seychelles jurisdiction.
- ✓ Global agreement on Ballast Water from commercial vessels.

### Institutional Framework

- ✓ The **Ministry of Foreign Affairs and Transport (MFAT)** has portfolio and policy responsibility for all transport in Seychelles including land transportation, maritime transport and civil aviation.
- ✓ The **Seychelles Land Transport Authority (SLTA)** has responsibility under **MFAT** for implementation of all land transport policy and related programmes.
- ✓ The **Seychelles Port Authority (SPA)** has responsibility under **MFAT** for implementation of all maritime transport policy and related programmes.
- ✓ The **Seychelles Civil Aviation Authority (SCAA)** has responsibility under **MFAT** for all air transport and civil aviation policy and implementation of related programmes.
- ✓ The **Department of Information, Communication and Technology** under the **Vice President's Office** has portfolio and policy responsibility for Communications.
- ✓ The **Department of Finance and Trade** in the **Ministry of Finance, Trade and Blue Economy** has responsibility for Trade.

## 6.4 AGRICULTURE

The agricultural sector's contribution to GDP remains small 1.3%<sup>3</sup> in 2014. Agriculture production and livestock farming face stiff competition from cheaper imports, despite efforts geared towards boosting local production and reducing demand for imported produce. 545 farmers registered with the Seychelles Agricultural Agency are farming on both private and state land. By contrast, some 8,641 (34.8%) of all households are involved in some form of small-scale agricultural practices. The present estimated area under agricultural production is 95-100 hectares. However, in recent years more than 80 % of agricultural state land has been diverted to others sectors. In this context and as national food security has become a policy priority; agricultural production will be forced to become more intensive to keep abreast of increased competition from imported goods and increased local demand fuelled by the development of the tourism sector.

Negative agricultural practices have led to:

- ✓ **Increase upland erosion:** Soils in the Seychelles are inherently infertile both chemically and physically. Clearing of vegetation on sloping land leads to loss of soil and nutrients. This lowers productivity and undermines other soil functions such as water cycle management and increase sedimentation in the lagoon impacting the marine and costal ecosystem. In recent years, agricultural and urban expansions have led to erosion.

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<sup>3</sup> Central Bank Report 2014

- ✓ **Pollution by livestock and over use of chemicals:** In uplands area, livestock waste is often not managed and leaks into soil and pollutes nearby land and water table. In agricultural areas, the quantities of chemical pesticides and fertilizers are not well managed, also causing pollution which affects terrestrial and marine ecosystem
- ✓ **Increase water shortage:** Seychelles has relatively abundant rain through most of the year. As a result, most agriculture is rain-fed, and water storage and irrigation is very limited. However, seasonally low rainfall, seasonal water wastage and localized water shortages can have direct impacts on biodiversity.
- ✓ **Climate change** is as well leading to changed rainfall patterns (longer drought period and more intense rainfall), increase of temperatures, more intense extreme events and sea level rise. These factors exacerbate the impacts of negative agriculture practices.

**Positives agricultural practices** should reflect the need to protect water tables, pollinators and soil fertility and biodiversity, and consider integrated pest and diseases management as well as changing climate conditions.

- ✓ The government of Seychelles has developed a series of policy documents, which reflect the need to adopt sustainable farming practises respecting the environment.
- ✓ A strong extension and monitoring programme for farmers is in place assisting farmers in adopting sustainable farming practises including integrated pest management techniques, sustainable land management techniques and rainwater harvesting and water efficiency techniques.

### **Policy Framework**

The focus of these documents is to increase food security, specifically by increasing and diversifying food production.

The main agricultural policy related documents are: **The Agricultural Development Strategy, 2007-2011 and The Food Security Strategy (2008-2011), The Sustainable Land Management Action plan (2011-2020) of the UNCCD.**

These strategies and action plan put a heavy emphasis on sustainable production, which contribute to minimize the impact on biodiversity.

**A Biosecurity Strategy (2011-2015)** and the Plant and Animal **Biosecurity Act** was adopted as well in 2014 to establish a comprehensive biosecurity framework and biosecurity services in Seychelles. The objectives are to prevent and minimized the introduction, the spread and the impact of Invasive Alien Species (IAS) in Seychelles. Implementation remains limited due to limited financial capacity.

**The Seychelles National Agriculture and Fisheries Investment Plan (2015-2020)** which determines the financial needs and financial gaps for the agricultural and fisheries sector.

**The Seychelles Sustainable Development Strategy (SSDS) 2012 – 2020** has 14 programmes: 12 thematic areas including Agriculture and food security. The SSDS seeks to mainstream

the three Rio Conventions (on Biodiversity, Climate Change and Desertification) in the Seychelles context.

All these documents contribute positively to biodiversity conservation even though their implementation remains limited due financial and human capacity constraints.

The Agricultural and Fisheries Incentives Act provides the following main incentives to the agricultural sector. The detailed Act can be found in Annex 1:

**Table 1: Incentives for the agricultural sector**

<b>Relevant Person/Business</b>	<b>Special rate for business tax</b>	<b>Deductions allowed from taxable income</b>	<b>Accelerated depreciation</b>
<b>Farming entities</b>	0% of the first R250,000 of taxable income; and at 15% on the remainder	200% of the qualifying expenditures	45% on year 1 40% on year 2 30% on year 3 20% on year 4 10% on year 5
<b>Agricultural exporters</b>	Same as above	Same as above	Same as above
<b>Agricultural processors</b>	Same as above	Same as above	Same as above

The only requirement to be able to benefit from these incentives is to be registered farmers. The incentives allowed to the agricultural are given whether or not the production practices are respectful of the environment. These incentives can be harmful for biodiversity if eco-friendly practices are not used. The Development Bank of Seychelles is providing, as well, subsidized loans for the agricultural sector.

These financial incentives allowed to the agricultural sector are given whether or not the production practices are respectful of the environment. As such, these incentives can be harmful for biodiversity if eco-friendly practices are not used. At the moment, there is no specific policy framework for financial or non-financial incentives for conservation and sustainable use of practices available within the agricultural sector.

### **Institutional Framework**

The main institutions and actors in the agricultural sector are:

**The Ministry of Natural Resources** is responsible to develop and monitor the implementation of the regulatory and policy framework for the agricultural sector. The **Seychelles Agricultural Agency** is a parastatal agency responsible to execute the programme outlined in the national agricultural and food security policies for food security, increasing agricultural production and the modernization and development of the agricultural sector. The financial and technical capacity of the MNR and SAA is limited but they are receiving technical and financial support from the Food and Agriculture Organisation and the International Fund for Agricultural Development.

**Non- governmental organisations** involved in the agriculture sector are: The Seychelles Farmers Association and Environmental NGOS (Sustainability for Seychelles is working with farmers on rainwater harvesting and sustainable living, Terrestrial Restoration Action Society of Seychelles working on land rehabilitation techniques,) are working to bring together farmers and promote sustainable agricultural practises.

The NGOs are receiving financial support from the **Global Environmental Facility Small Grant Programme and Mangroves for the Future Programme**.

**The Ministry of Finance, Trade and Investment** is responsible to allocate ministerial budgets, developing financial legislation and implementing fiscal reforms. The status quo situation is benefiting the developers of infrastructure projects who can have access to land and reduce costs in land preparation techniques, the importers and retailers of pesticides who can sales non environmentally products and farmers who are not respectful of the environment.

The general public are paying as well for this situation more specifically the consumers of local agricultural products which may contains a high level of chemical residues increasing the risk of health problems, the water users which may consume contaminated water, the fishermen which may see a reduction in catch in the marine coastal area and the consumers of fishes which may contain a high level of chemical.

## **6.5 FISHERIES**

Seychelles is a large oceanic country with an exclusive Economic Zone of 1.4 million km<sup>2</sup>. Fisheries play an important role in the economy of Seychelles by providing a source of employment, food security, trade and foreign exchange for the country. The fisheries contribution to the GDP is estimated at 7.9% and represents 11% of the formal employment.

The local supply of fish comes mainly from the artisanal sector with annual fish landings averaging below 5000 tons. In 2011, there were about 1700 full time and part time fishers involved in this fishery, targeting mostly demersal (bottom dwelling) species. The commercial fisheries sub-sectors are:

- The Seychellois operated the four semi-industrial long line fishery targeting tuna and billfish, with a total catch 237 MT in 2011.
- The foreign owned industrial long liners mostly from Asian origin with a total catch of 8,257 MT in 2011 targeting tuna and billfish. In 2014 there were 114 licenses issued.
- The foreign European owned industrial purse seiner targeting tuna for the canning industry. In 2011, the total catch was estimated at 258,361 MT. In 2014, 54 licenses were issued. The tuna-canning factory is the largest national employer but employed a large number of expatriates (around 50% of the workforce).

The results of increase local demand for fresh fish and ever increasing demand from the export market has lead to localized over-fishing especially on the Mahé plateau, which forms the basis of the artisanal fishery.

Over-fishing constitutes the primary and most immediate threat and in particular with regard to demersal stocks where there is strong and clear evidence of declines in many species and collapses of some populations.

In the pelagic zone which constitutes the vast majority of the Seychelles' EEZ, the expansion of industrial tuna fishing in the western Indian Ocean and the establishment of a tuna cannery in Port Victoria in the mid-1980s have made fisheries the primary source of foreign exchange to the economy. Seychelles is a member of the Indian Ocean Tuna Commission that seeks to manage this complex fishery. Data from IOTC indicates that most fish stocks are still healthy but concerns were raised especially on the issues of by-catch.

Climate change is as well a contributing factor to this situation. In Seychelles the prolonged raised sea temperatures in 1998 caused severe and extensive coral bleaching and death in Seychelles resulting in some 90% and 50% loss of live coral cover in the central archipelago and outer islands respectively. Recovery from this bleaching has been patchy and hindered by three subsequent bleaching episodes. Issues of changing currents and shifts in seasonal weather patterns may have significant impacts upon the occurrence and distribution migratory and pelagic species with potentially damaging ramifications for conservation and sustainable use.

Finally, the ongoing exploration for oil and its potential future exploitation pose significant risks for biodiversity on the Mahé plateau and beyond.

### **Negative practices**

- ✓ Fish aggregating devices (FADs) are floating objects that are designed and strategically placed to attract pelagic fish. Many pelagic species associate with natural FADs in the open ocean, such as logs, seaweed, and coconuts. Man-made FADs are constructed from a variety of materials. Ropes and lines encourage the settlement of marine plants and small crustaceans and molluscs', which in turn attract small fish. Fish finders may be attached to a FAD allowing fishermen to electronically "connect" to the FAD and see how many and at what depth the fish are located. Animals near the FADs are then harvested with seines, hooks, or longlines. Sea turtles and marine mammals can become entangled in any nets, ropes lines that are used in the FADs. These entanglements can limit the animals' ability to swim and feed and could eventually lead to drowning if the animal is held underwater. These FADs can also alter marine mammal feeding behaviour by habituating them to a temporary and unnaturally aggregated food source. There are no current mitigation measures in place for minimizing the impacts of FADs on marine mammals or sea turtles.
- ✓ **Illegal, Unregulated and Unreported fishing (IUU)** is important in the region and put at risk the sustainability of tuna or tuna like fishing. IUU fishing in the Indian Ocean includes a range of illicit activities: fishing without permission or out of season; harvesting prohibited species; using outlawed types of fishing gear; disregarding catch quotas; or non-reporting or underreporting catch weights. Of particular concern are the western Indian Ocean and the maritime areas along the coast of eastern Africa. There, fishing vessels of various flags have taken advantage of the

absence in coastal countries of strong enforcement mechanisms. IUU was estimated in 2005 at 7.5 million USD per year for tuna, *beche de mer* and shark with 7.41 million USD for tuna only.<sup>4</sup>

- ✓ **By catch:** Up to 15,000 tonnes of fish is caught as by-catch and discarded or poorly used when industrial tuna vessels bring in 300,000 tonnes of mainly tuna into Port Victoria annually. It is estimated that the Seychelles consumes approximately 5000 tons of fish annually.

### Positive practices

- ✓ Seychelles is developing and implementing a co-management approach for Praslin artisanal trap and line fisheries which has the long-term objective to ensure that catches remain within the biological limits of the resource and ensuring realistic economic returns for the fishers.
- ✓ Expansion of marine protected areas in the Seychelles is in process with the goal to expand the marine protected areas in the EEZ through a marine spatial planning consultative process. The target is to declare up to 15% of the EEZ as no take zone and 15% as sustainable use zone.
- ✓ Seychelles has put in place the vessel monitoring system (VMS), which aims to monitor vessel movement within the EEZ and help to monitor IUU.
- ✓ Tuna purse seiners now have on board an environmental officer who monitors and records catches by vessel.

### Policy Framework

- ✓ **The Fishery Act 2014** is the primary legal instrument to control fishing in Seychelles it put the emphasis on sustainable fisheries and co management.
- ✓ The government is developing as well the **Blue Economy Strategy**, which aims to promote the development and conservation of marine resources and optimize the benefits from fisheries. The strategy will encourage the expansion of the fisheries sector into processing, created employment for Seychellois and at the same time provided a framework for the protection and sustainable management of the marine environment and the natural resources of Seychelles.
- ✓ Seychelles has developed as well a **Mariculture Development Master Plan** aiming to promote the development of this sector, which will contribute to reduce the pressure on the fishery stock on the Mahé plateau.
- ✓ **The Seychelles National Agriculture and Fisheries Investment Plan (2015-2020)** which determines the financial needs and financial gaps for the agricultural and fisheries sector. This plan is being incorporated into the BIOFIN assessments.
- ✓ **The Seychelles Sustainable Development Strategy (SSDS) 2012 – 2020** has 14 thematic programme and action plan including one fisheries and marine resources.

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<sup>4</sup> Review of impacts of unreported and unregulated fishing on developing countries, Marine Resources Assessment Group ,UK,2005

The SSDS seeks to mainstream the three Rio Conventions (on Biodiversity, Climate Change and Desertification) in the Seychelles context.

- ✓ **The Agricultural and Fisheries Incentives Act** provides the following main incentives to the fishery sector. The detailed Act can be found in Annex 1:

Relevant Person/Business	Special rate for business tax	Deductions allowed from taxable income	Accelerated depreciation	Employee social security contribution
<b>Fishermen</b>	<b>0%</b>	200% of the qualifying marketing and promotion expenses	45% on year 1 40% on year 2 20% on year 3 15% on year 4 5% on year 5	0%
<b>Fish processors</b>	0% of the first R250,000 of taxable income; and at 15% on the remainder	Same as above	Same as above	5%
<b>Fishes exporters</b>	Same as above	Same as above	Same as above	5%

**Table 1: Incentives for the fishery sector**

- ✓ The only requirement to be able to benefit from these incentives is to be a registered fisherman at the Seychelles Fishing Authority.
- ✓ **The Development Bank of Seychelles** is providing as well subsidized loan for the fishery sector.
- ✓ These financial incentives allowed to the fishery sector are given whether or not the production practices are respectful of the environment.

### **Institutional framework**

**The Ministry of Agriculture and Fisheries** is responsible to develop and monitor the implementation of the regulatory and policy framework for the fisheries sector. **The Seychelles Fishing Authority (SFA)** is a parastatal organization, which functions as the executive arm of Government for fisheries and related matters. The Authority was created in August 1984 by the Seychelles Fishing Authority (Establishment) Act.

The Seychelles National Parks Authority (SNPA) manages the state owned marine national parks. Seychelles Islands Foundation (SIF) managed the two UNESCO World Heritage sites of Seychelles, which includes the marine protected area of Aldabra.

Civil society stakeholders include Nature Seychelles (NS) and the Island Conservation Society (ICS) both manage Nature Special Reserves with include marine areas and potential marine

protected areas in the outer islands. The Marine Conservation Society, Seychelles (MCSS) is the only NGO dedicated exclusively to the conservation and sustainable use of marine biodiversity.

Other biodiversity NGOs include the Green Islands Foundation (GIF) , which manages potential protected area of North and Denis Island.

There are various other civil society organisations with direct involvement such as fishers associations like the Praslin Fishers Association (PFA), the Bel Ombre Fishers Association, the Seychelles Sports Fishing Club and the Artisanal Shark Fishers Association (ASFA).

## **6.6 TOURISM**

Much of the tourism industry in Seychelles is focused on high-end tourism. Altogether, the tourism sector provides more than 70% of hard currency earnings and employs about 30% of the labour force. Tourism and associated services currently accounts for more than half of GDP. Clearly, it is the most important economic sector for the country and the one that generates the most tax revenue for the government. Statistics on international arrivals show that the number of arriving tourists is on the rise, with 215,000 in 2014, up from some 150,000 in 2008 and 2009, according to the National Bureau of Statistics (NBS).

In terms of Seychelles’ “touristic brand appeal” as a destination measured by the digital demand, a recent study by the Seychelles Tourism Board (STB) shows that the country is viewed as a destination for niche markets (honeymoons) and sports (mainly diving).

Seychelles has now over 300 tourism establishments with 20 establishments of more than 50 rooms. Land constraints limit the extent to which tourism development can expand in Seychelles. It is generally felt that tourism developments have now reached a level of saturation on the main inhabited islands. However, scarcity of land has created conflicts of land uses in some areas (see above).

The growth in tourism over the past ten years has meant more pressure on the local resources of the country (water, energy, food) and produces an increase quantity of waste that has to be properly managed. The challenges of the tourism sector are:

- ✓ To balance the demands of the tourism industry and the needs of the local population.
- ✓ To minimize the impact of the tourism industry of the environment and the local community. The tourism industry has put pressure on local human resources – an additional 3000 expatriates are now working within the sector.

The economic benefits of the tourism industry to Seychelles are tremendous and will continue to play a significant role in economic growth in the future.

Proceeds from tourism also directly support sustainable development initiatives, such as conservation activities, resource management and infrastructure development in addition to the tax revenue produced.

### **Negative Practices**

- ✓ Environmental impact assessments have been carried out for the construction of tourism establishment. However, implementations of the recommendations of the

EIA and mitigation measures have often only been partially implemented. Review and monitoring takes place in the Ministry of Environment and is largely understaffed – receiving about 600 EIAs per year including approximately 30 Class 1 (large projects).

- ✓ The numbers of studies on tourism carrying capacity per island and on biodiversity sensitive areas have been very limited. This has resulted in a number of sites being impacted by the number of tourists (coral destruction, disturbance of wildlife, etc.).
- ✓ There is no land use plan approved by the government of Seychelles (see above).

### Positive Practices

- ✓ Seychelles has introduced a sustainable tourism label (SSTL). The SSTL is a sustainable tourism management and certification programme. It provides a set of standards to encourage hotel enterprises to mainstream sustainability practices into their business operations to safeguard the biodiversity and culture of Seychelles. The criteria are divided into 8 themes: management, waste, water, energy, staff, conservation, community and guest. However, the number of certified hotels remains limited in Seychelles (less than 10).
- ✓ Proceeds from the tourism industry have directly supported conservation activities such as rehabilitation of island ecosystems; management of protected areas, etc. and has contributed to the development of smart partnerships with environmental NGOs.
- ✓ The Government of Seychelles introduced a Corporate Social Responsibility Tax in January 2013. The rate payable by a business with a turnover of SCR 1,000,000 or over is 0.5% on the total turnover payable to the Seychelles Revenue Commission. Businesses have the option to pay 0.25% in cash or in kind directly to an approved fund, organization or financing of a project in a social or environmental sector or area. The remaining 0.25% is payable to the Seychelles Revenue Commission. The Corporate Social Responsibility Tax is financing community development and environmental projects. The revenues that go to the Seychelles Revenue Commission are not kept in a separate fund but discussions are ongoing for more detailed accounting for both NGOs receiving direct financing and the government funds. Currently the private sector sees this as an additional tax.

### Policy Framework

- The main document for the tourism sector is the **Seychelles Sustainable Tourism Master Plan (2012-2020)**, which integrates the principles and practices of sustainability in the daily operations of tourism businesses and service providers to balance between the objectives for economic development and environment conservation and protection.
- **Tourism Sector Policies:** The policy covers the framework and guidelines under which the various tourism sectors operate. Depending on their portfolio, various regulatory agencies and departments, together with the Seychelles Tourism Board (STB), are responsible for certain components of the policies. A wide range of tourism policies is in place.
- **The Environment Protection Act** which regulates the Environmental Impact Assessment process.

### **Institutional framework**

Government agencies in the tourism sector include the **Ministry of Tourism** responsible to develop and implement the policy and regulatory framework and the **Seychelles Tourism Board**, which responsible to market Seychelles has a touristic destination. The Seychelles Tourism Board has a network of overseas tourist offices in the major markets.

The **Seychelles Tourism Academy** is responsible for the training for the various labour requirements of the tourism industry.

**The Ministry of Environment, Energy and Climate Change** is responsible to carry out the environmental impact assessment process.

**The Ministry of Land Use and Housing and the Planning Authority** responsible respectively for the land use plan and construction regulation.

**The private sector** is an important stakeholder in sustainable tourism in Seychelles. **The Seychelles Hospitality and Tourism Association (SHTA)**, formed in 2002, represent a broad spectrum of the tourism and hospitality industry with a membership of 113 accommodation establishments and 11 destination management companies.

**The majority of NGOs** involved with the tourism sector are those engaged in conservation and the management of parks and protected areas. These include: The Island Conservation Society, the Seychelles Islands Foundation, the Silhouette and Moyenne Island Foundation and Nature Seychelles. Other NGOs such as Sustainability for Seychelles and Marine Conservation Society of Seychelles are involved in energy, marine, recycling and other conservation initiatives with tourism operations.

The tourism establishments, operators and project developers are benefiting from the status quo scenario. The government, the general public and the visitors are paying for the degradation of the environment.

## **6.7 PROTECTED AREAS**

Seychelles has been classified as a global biodiversity hot spot. The unique biodiversity of the Seychelles has developed largely because of its long geological isolation, allowing evolution to follow its own course separate from the continents. The protected area system remains the most important vehicle for conservation. Protected Areas in the Seychelles have been established since the seventies.

The current protected areas estate covers 55,726 ha (38% terrestrial and 62% marine). The terrestrial estate went from just over 3,000 ha in the 1970's to almost 21,000 ha in 2010, which represents 47% of the landmass. The atoll of Aldabra alone account for 80% of the coverage. Around 70% of Seychelles' protected land area is the atoll of Aldabra, which is protected by a triple gazettal state (Special Nature Reserve, World Heritage Site and Ramsar site), while a further 15% is on the island of Mahé. Also, much of the mountainous

landscapes on Mahé are dominated by the Morne Seychellois National Park with 3,102 ha or 19% of the main island's land surface.

While terrestrial ecosystems are reasonably well covered, Seychelles' marine environment enjoys only limited protection with 34,805 ha gazetted as marine PAs, all of which are no-take zones, but represents less than 1% of the EEZ.

Seychelles is in the process of expanding its protected area network which will include the proclamation of 8 new protected areas in the outer islands and 3 sites in the inner islands to increase the Protected Areas System (PAS) network to 149,045 ha, almost tripling the gazetted area.

In addition, in 2013, the government announced its intention to proclaim 30% of the EEZ, a further 200,000 km<sup>2</sup>, is to be protected of which 50% of that area will be a no-take zone, in exchange for debt cancellation negotiated with the Paris Club. A marine spatial planning exercise of the EEZ with the support of The Nature Conservancy (TNC) started in 2014 and should be finalized in the course of the year 2016. It will be an important step in determining areas for protection. It will be an important step in determining areas for protection. The government of Seychelles is in the process of setting up the Seychelles Climate Change Adaptation Trust Fund (SeyCCAT) to provide the platform for funding for biodiversity conservation.

However, the PAS is an assemblage of sites and institutions with various management modalities; hence, the system is not managed in a holistic way to optimize the total value of the system. There are important gaps into the economic, regulatory and accountability frameworks at the systems level in which institutions and individuals could operate. These deficiencies and the lack of capacities at different levels make it difficult to present a clear overview of the PAS – and its sub-systems – in terms of revenues, expenditures, financial needs, and management and cost effectiveness.

### **Positives practices**

- ✓ A biosecurity act has been adopted in 2013 by the government of Seychelles which aims to set biosecurity services in Seychelles to prevent monitor and eradicate alien invasive species but implementation has remained limited due to lack of financial and technical capacity
- ✓ A protected areas policy was adopted in 2013.
- ✓ Seychelles has adopted adaptive management strategies for the sustainable use of natural resources such as sooty tern eggs, coco de mar, and land tortoises. However, their implementations have remained limited.
- ✓ Programs for eradication of key Alien Invasive Species from small private islands
- ✓ Expansion of the protected area system.
- ✓ Reintroduction of endangered endemic land bird species on small private islands.

## Negative practices

- ✓ Poaching and over exploitation of sooty tern eggs and coco de mer has led to the extinct of a number of sooty tern colonies and now the conservation of coco de mer is threatened.
- ✓ Habitat has been lost as low wetlands have been reclaimed and forests are being invaded by invasive alien species.
- ✓ Climate change with increase of sea temperature has had a huge impact on coral reef.
- ✓ Revenue generated by the protected area system is only retained partially by the institutions managing protected areas.
- ✓ The Lack of unified governance framework for the protected area system limits the management effectiveness, cost effectiveness and optimal of uses of revenues generated by the Protected Areas System. Systemic deficiencies and asymmetries between the PAs impede effective financial planning and allocation.
- ✓ The current legal frameworks are patchy and incomplete for tapping into the various sources of conservation finance and using them effectively. A system-wide analysis is required to update the regulatory and policy framework for sustainable financing of the PA system.
- ✓ Specific capacity deficits for leveraging PA finance have chronically kept revenue generation across the PA system below acceptable benchmarks for conservation effectiveness for all institutions managing PA but most specifically for SNPA.

## Policy Framework

**The Seychelles Sustainable Development Strategy (2012-2020)** is mainstreaming biodiversity conservation priorities.

**The National Parks and Nature Conservancy Act**, which is currently being revised, regulates activities in the different categories of protected areas.

**The government in 2013 has adopted A National Protected Areas Policy.**

**The National Biodiversity Strategy and Action Plan (2012-2020)**, identifies the country's vision and action plan for biodiversity conservation.

**The National Strategy for Plant Conservation (2005-2010)** provides a framework for the conservation of plants and their habitats in Seychelles and identifies priority research avenues to enhance our understanding of plants and their associated environment. **National Plan for Conservation of Sharks (NPOA) and The Seychelles Wetland Conservation and Management Policy, (2005)** are frameworks targeting specific species

and habitats which attempt to involve broad stakeholder participation; unfortunately, neither of them are currently being implemented effectively.

**National Climate Change Strategy (2009)** addresses the priorities for addressing climate change impacts in Seychelles, but not impact on biodiversity. Biodiversity conservation and ecosystem protection are regulated as well under different legislation, **the Fisheries Act (2014)**, **the Wild Animals and Birds Protection Act (1961)** and **the Wild Birds Protection (Nature Reserves) Regulations (1966)**.

### **Institutional Framework**

The primary Governmental agencies are the Department of Environment (within the Ministry of Environment and Energy, MEE), the Department of Natural Resources (within the Ministry of Natural Resources and Industry, MNRI) and their associated parastatal agencies and corporate bodies: the Seychelles National Parks Authority (SNPA), The Seychelles Islands Foundation (SIF) and the Seychelles Fishing Authority (SFA). Secondary Government stakeholder agencies include the Ministry of Land Use and Housing (MLUH), the Planning Authority, the Ministry of Tourism and Culture (MTC), the Seychelles Tourism Board and the Seychelles Agricultural Agency (SAA).

Civil society stakeholders are also diverse. Seychelles has a vibrant biodiversity NGO community. Nature Seychelles (NS) and the Island Conservation Society (ICS) both manage Island Special Reserves amongst other much broader activities. The Marine Conservation Society, Seychelles (MCSS) is the only NGO dedicated exclusively to the conservation and sustainable use of marine biodiversity. Other biodiversity NGOs include the Green Islands Foundation (GIF), the Plant Conservation Action group (PCA), the Terrestrial Restoration Action Society of Seychelles (TRASS), the Shark Research Foundation, Seychelles (SRFS) and the Wildlife Clubs of Seychelles (WCS).

There are various other civil society organisations with direct involvement such as fishers' associations - notably the Praslin Fishers Association (PFA), the Bel Ombre Fishers Association, the Seychelles Sports Fishing Club and the Artisanal Shark Fishers Association (ASFA) - and private sector associations notably the Seychelles Chamber of Commerce and Industry (SCCI) and the Seychelles Hospitality and Tourism Association (SHTA).

A summary table can be found in Annex 1 presenting the drivers of environmental degradation, stakeholders benefiting or paying for the economic costs of this situation and the relevant policy and regulatory documents that need to be revised or implemented to address these issues .

## **7. CONCLUSION**

### **✓ General Conclusions**

While the Seychelles has made considerable strides in biodiversity conservation, the main challenges remain a) lack of capacity and policy coordination within the key institutions b) the need to mainstream biodiversity into the planning process c) lack of an enforceable National Land Use Plan d) timely enforcement of the Plant and Animal Biosecurity Act e) the need to identify additional and more efficient use of resources for biodiversity conservation f) Adopting the Polluter Pay Principle.

#### **A. Lack of Capacity and Policy Coordination within Key Institutions**

At institutional level, Government has removed financial autonomy of all Government agencies involved with biodiversity conservation with the exception of the Seychelles Island Foundation (SIF).

More specifically, all revenues generated by the SNPA and the SBS are channelled into the Government Consolidated Fund, and these Government agencies each receive an annual budgetary allocation in the same way as do Government ministries and departments.

The Ministry responsible for Finance believes that agencies such as SNPA and SBS could only be given their financial autonomy once they have appropriate capacity from within.

In the interim, such agencies are not incentivised to collect revenue. They are also not meeting their expected deliverables due to insufficient budgetary allocation compounded by lack of productivity. So long as such Government agencies are not given back their financial autonomy, they should at least become subject to programme based performance budgeting.

In the case of the public sector, the dearth of capacity is exacerbated by lack of coordination among the main Government ministries and agencies involved with conservation.

This is typified by the absence of progress made in implementing the SSDS which has been completed since 2012. In the meantime, Government has launched since late 2014 the Blue Economy initiative with the principal aim of developing the sustainable use of ocean and coastal zone resources, which, by SIDS definition, would include all terrestrial resources of Seychelles.

There is therefore considerable overlap between the Blue Economy initiative and the SSDS; yet one falls under the new Ministry of Finance, Trade and Blue Economy while the other under the Ministry of Environment, Energy and Climate Change.

With regards to the NGOs involved in biodiversity conservation, with the exception of Nature Seychelles, which is partly financially autonomous, all the other NGOs are lacking in both capacity and regular flow of financial resources, being almost entirely dependent on project related financing.

This calls into question the definition and vocation of NGOs in Seychelles, which can be set up without much formality so long as they are non-profit making. There is no specific requirement, as in a number of other countries, for them to be operating in the national interest with appropriate checks and balances in place, including monitoring and assessment.

#### B. Need for Mainstreaming Biodiversity Conservation into Planning Processes

There is a dire need to better mainstream biodiversity into the planning processes, ideally using a bottom up approach as against the top down approach being practiced by the Ministry of Finance, which now has overall responsibility for both economic and budgetary planning.

Seychelles second NBSAP was also approved in 2015 and needs to be harmonised with both the SSDS and the Blue Economy initiative.

Finally, all three plans viz SSDS, Blue Economy initiative and the NBSAP need to be streamlined into the Seychelles Strategic Plan 2016-2040 (once approved), the National Development Strategy (NDS), the Public Sector Investment Plan (PSIP) and Budgetary Planning Process.

#### C. Lack of an Enforceable Land Use Plan

There is an urgent need to develop and enforce a National Land Use Plan. So far, only 3 District Land Use Plans for Praslin, La Digue and Anse Royale have been developed. In the absence of a National Land Use Plan, the competing demands for land across all sectors will impact negatively on Seychelles biodiversity.

#### D. Timely Enforcement of the Animal and Plant Biosecurity Act

Although the Animal and Plant Biosecurity Act has been approved since 2014, it is not being enforced due mostly to lack of capacity. It is paramount for the Seychelles authorities to ensure the timely enforcement of the Animal and Plant Biosecurity Act since this could be one of the most cost effective means of limiting damage to Seychelles biodiversity. The authorities appear to be investing much more resources in trying to eliminate or limit damage of invasive alien species, which have already infiltrated such as the hairy caterpillar than in staving off new invasive alien species.

#### E. Need to identify additional and more efficient use of resources for biodiversity conservation

In line with the revised objective of BIOFIN, it is being recommended that the emphasis should be as much on making more efficient use of existing resources as on mobilisation of additional resources for biodiversity conservation. At policy level, Government should strive to mobilise more resources for biodiversity conservation from those benefiting the most from Seychelles biodiversity including operators across the tourism, fisheries and agricultural sectors.

#### F. Adopting the Polluter Pay Principle

Government should review taxes and subsidies to those actors / institutions within the production sectors such as agriculture, fisheries, construction, and tourism such that on the one hand a “polluter” pay principle is adopted, while on the other hand harmful subsidies are phased out.

✓ **Specific Recommendations**

- Resource Mobilisation and Sustainability of BIOFIN Initiative

In terms of resource mobilisation, the BIOFIN initiative should be linked to the recently proposed Seychelles Climate Change Adaptation Trust (SEYCCAT) being set up under the Debt for Climate Change Adaptation Swap. Even if the latter's initial focus would be on implementation of the Marine Spatial Planning (MPS) project, there may be provision within its mandate for SEYCCAT Fund to also encompass at a later stage funding for conservation of coastal zone and terrestrial resources.

SEYCCAT may be one of the ways of sustaining Seychelles BIOFIN once the initiative may no longer be able to be supported by the sponsors in 2017.

- Increased Role of NGOs Subject to Accountability

Previously NGOs had much more direct access to donor funding but in recent years such funding has been largely diverted to Government ministries and departments which may in turn re-channel some funding to NGOs as executing agencies for selected projects. But NGOs are still able to directly access new forms of donor funding viz. GEF Small Grants and *Mangrove For The Future*.

Since 2014 NGOs have been benefiting from CSR funding given that businesses are allowed to make CSR allocations of up to 0.25 % of their turnover to environment and other community projects.

In the same way that Government may need to revisit its policy of giving greater financial autonomy to those Government agencies involved in collecting revenue for services under their responsibility, Government may also wish to review the vocation of and support provided to NGOs. Those NGOs which meet criteria such as serving the public or national interest should be better supported financially such that they may strengthen their capacity to improve delivery of service.

NGOs could not only serve as a platform for mobilizing additional resources, but they could buttress the insufficient capacity of key Government agencies in overseeing and implementing biodiversity programmes and initiatives.

- Private Sector Entities Benefiting from Biodiversity to Assume Greater Ownership and Responsibility for Biodiversity Conservation

Apart from the Government agencies and the NGOs involved in biodiversity conservation, the other challenge at policy and institutional level is to further mobilise the private sector, especially those within the tourism and fisheries industries that benefit directly from conservation.

So far a number of hotels especially on small island resorts, have adopted conservation programmes for their immediate environment. The BIOFIN Initiative offers an opportunity

for other hotels and similar stakeholders to be convinced of the short term and long-term business case for them to also invest in biodiversity conservation. In the short term, they could use their conservation programmes as a powerful marketing tool to increase yield and turnover. In the longer term, hotels and other tourism businesses should perceive biodiversity conservation as the destination's lifeblood; if allowed to erode, their future returns on investment would be jeopardised.

# Annex 1

## Summary Table Drivers, Stakeholders, Policy and Regulatory Framework

The table below presents stakeholders that are related for each of the drivers of negative change highlighting those benefitting and currently paying for direct and indirect economic costs associated with biodiversity degradation. Also included in the table are the relevant policies regulatory addressing these issues.

<b>Drivers of environmental degradation</b>	<b>Stakeholders involved</b>	<b>Stakeholders benefiting from the situation</b>	<b>Stakeholders paying for economic costs</b>	<b>Policy and regulatory framework that needs to be revised or implemented to address these issues</b>
Poor land preparation technique (agriculture and construction sector as well)	Farmers, SSA , MNR, MLUH, Planning authority Contractors	Contractors	General public, Government, private land owners, farmers, fisherman, diving industries	Town and Country Planning Act, 1972
Intensive use of pesticides	Farmers, SAA, MNR, Importers and retailers of pesticides	Farmers, importers and retailers of pesticides	Fishermen, water users, Government, general public.	Environment Protection Act, 1995
High usage of water by agricultural sector and tourism sector	Farmers, tourism operators, SAA, MNR, PUC	Farmers	Water users, Get , general public	State land and River Reserve Act, 1903 ; Public Utilities Act, 1986, Environment Protection Act, 1995
Change in land use	MLUH, promoters	Promoters	Fishermen, farmers, general public, Get	Town and Country Act, 1972

EIA not implemented	MEECC, Promoters	Promoters	General public, Gvt, artisanal fisheries, diving industry	Environment Protection Act
Increase introduction of alien invasive species through increased trade and tourist arrivals	Ministry of tourism, tourism board, tourism operators, traders, ministry of trade, customs, SAA, MNR	Tourism operators and traders	Government, farmers general public, institutions managing protected areas	Animal and Plant Biosecurity Act, 2014
Increase number of visitors to protected areas and sensitive areas	Tourism operators, institutions managing PA, SNPA, MEECC, Ministry of Tourism	Tourism operators, international tourists	Institutions managing protected areas, MEECC, donors, tourists and tourism operators	National Parks and Nature Conservancy Act , 1969 Protected Areas Policy, 2013
Increase production of waste and pollution	MEECC, LWMA, tourism operators, general public, shipping industries, industries ,traders, landfill manager	Private landfill manager, private transport companies, recycling companies	Public and private sector	Solid Waste Master Plan (2010-2020), Environment Protection Act,1995
Overfishing	MNR, SFA, fishermen, sports fishing industries, semi industrial and industrial fishing companies,	Artisanal, semi industrial and industrial, sport fishing sector	Gvt, general public and donors	Fisheries Act, 2014
Use of Fishing Aggregating Devises	MNR, SFA, Industrial fishing companies	Industrial fishing companies	Government and institutions managing marine areas	Fisheries Act, 2014
IUU Fishing	SFA, Coast	Illegal fishers	Government	Fisheries Act,

	guards		and donors	2014
Poor technique of mooring	SFA, SNPA, boat owners, MEECC, MFAT	Boat owners	Government, General public	Environment Protection Act, 1995
Use of non authorized fishing equipment	SFA, MNR, fishermen	Fishermen	Government, general public	Fisheries Act, 2014
Poaching birds, eggs, turtle, etc...	MEECC, NGOs, police, coast guards, SNPA	Poachers	Government , private entities, SNPA	Wild Animals and Birds Protection Act (1961) and the Wild Birds Protection Regulations (1966).
Climate change	Seychelles population and international community	None	Government , private sector and international community	Seychelles National Climate change Strategy, 2009 and the NBSAP(2015-2020)
Import of low quality products with short useful economic lives in absence of standards resulting in excess solid waste	MEECC, Department of Finance and Trade, Land Waste Management Agency (LWMA), SBS	Importers and Retailers of goods	Government , private sector, general public	Seychelles of Bureau of Standards Act , 1987; Solid Waste Master Plan(2010-2020
Import of energy inefficient electrical appliances	Department of Finance and Trade, SEC, SBS	Importers and retailers of electrical appliance	General Public	Solid Waste Master Plan (2010-2020; Seychelles of Bureau of Standards Act, 1987
Use of desalination water in spite of plentiful rainfall due to lack of rain water harvesting	MEECC, PUC, SEC	General Public	Government, general public	Public Utilities Act, 1986

Use of treated potable water instead of harvested rainwater or grey water for gardening	MEECC, PUC, LWMA	Households, businesses e.g. hotels, public parks and gardens	Government , general public	Public Utilities Act, 1986; Town and Country Planning Act, 1972
Disposal of plastic and other toxic municipal solid waste at Landfills	MEECC, LWMA, STAR	Households, Private Sector, Government .	Government , General Public	Solid Waste Master Plan(2010-2020)
Dumping of municipal solid waste containing re-usable and recyclable products and with potential energy value at Landfills	MEECC, LWMA, STAR	Households, Private Sector, Government .	Government , General Public	Solid Waste Master Plan (2010-2020)
Use of vehicles in lieu of more environment friendly alternatives e.g. walking, cycling, public transport.	MLUH, Planning Authority, MFAT, SPTC, MFTBE, MEECC	Vehicle importers and dealerships, SPTC, Taxis	Government , private sector and general public	Seychelles National Climate change Strategy, 2009;Seychelles Sustainable Development Strategy (2012-2020)
Foreign yachts arriving unchecked and mooring directly at marinas or other jetties with potential invasive alien species	MFAT, Port Authority, MEECC, Ministry of Tourism and Culture (MTC)	Yacht Owners, Local Yacht Service Providers	Government , general public	Animal and Plant Biosecurity Act,2014
Container Vessel Ballasts being emptied in Seychelles territorial waters with potential of introducing marine invasive alien species	MFAT, Port Authority, MEECC, Land Marine, Shipping Agencies	Importers and Exporters of Goods, Consumers	Government , general public	Animal and Plant Biosecurity Act,2014
Hulls of foreign vessels with potential of introducing marine invasive alien species in Seychelles territorial waters	MFAT, Port Authority, MEECC, MTC, Shipping Agencies, Marinas	Importers & Exporters of Goods, Yacht Owners, Local Vessel Service Providers	Government , general public	Animal and Plant Biosecurity Act, 2014