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Nomination file to designate, and re-designate, areas for protected area status under the National Parks and Nature Conservancy Act (NPNCA), as amended (1982).

Presented by:

The Minister responsible for Environment, Energy and Climate Change

Part A: Text

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1 Seychelles Marine Spatial Plan Initiative

Background and context

The Seychelles archipelago is a globally recognized biodiversity hotspot including 2,489 km² of coral reefs across its 1.35 million square kilometers Exclusive Economic Zone (EEZ). The Seychelles islands are unique as the only oceanic islands of the world that are continental in origin (GoS 2014). The granitic islands on the Mahé Plateau form the northern arc of the Mascarene Ridge, and contain 40 square kilometres of reefs (Spalding *et al.* 2001; Bijoux *et al.* 2008). Marine and coastal biodiversity has been fundamental to the socio-economic development of the Seychelles since human colonization in the late 18th century (GoS 2014a).

Seychelles was the second country in the world to sign the Convention on Biological Diversity (CBD) in June 1992 and became a party that same year. One of the CBD Aichi targets is “10% of coastal and marine areas are effectively conserved by 2020” (Strategic Goal C, target 11). Seychelles is also a signatory to the UN Sustainable Development Goals (SDG), with SDG14 “Life Below Water” having a target of 10% marine and coastal protection by 2020. Seychelles was the first country in the Western Indian Ocean to declare commitment to a Blue Economy with the signing of the Abu Dhabi Declaration (Jan 2014).

With a high level of endemism at 50-85% for different animal groups and 45% for plants, (GoS 2011) it is unsurprising that the Seychelles has a long history of conservation measures and management initiatives on land dating back to the late 1770s with the decrees of De Malavois and initiatives to establish reserves for giant tortoises in the late 1780s. However, area-based legislation was only developed in the 1960s, including the National Parks and Nature Conservancy Ordinance of 1969 (Annex I). These were put into context through a Government white paper by Mr. John Procter in 1971 entitled ‘Conservation Policy in the Seychelles.’ This paper accompanied the development of the Seychelles Tourism Policy (1969), the National Parks and Nature Conservancy Ordinance of 1969 and the Town and Country Planning Ordinance of 1970.

Use of the ocean and environmental concerns are firmly entrenched in the Seychelles’ Constitution (1993), where article 38 declares that “*The State recognises the right of every person to live in and enjoy a clean, healthy and ecologically balanced environment and with a view to ensuring the effective realisation of this right the State undertakes to ensure a sustainable socio-economic development of Seychelles by a judicious use and management of the resources of Seychelles*”.

In the 1960-1990s, Seychelles was one of the first countries in Western Indian Ocean to establish a network of marine protected areas and these covered less than 1% of EEZ. The selection criteria for these early MPAs was based primarily on aesthetic objectives for tourism values, not biodiversity values, and were designated with limited stakeholder consultation.

Other key steps taken by the Seychelles to protect biodiversity include complete legal protection of all marine mammals in 1979 and all marine turtles in 1994. Seychelles was one of the first countries to develop a National Plan of Action (NPOA) for the Conservation and Management of Sharks 2007-2011 (Nevill *et al.* 2007).

In the year 2012, at the Rio+20 United Nations Conference on Sustainable Development (UN CSD), the Seychelles’ President made a new commitment to designate 50% of Seychelles’ terrestrial surface area and 30% of the marine area under biodiversity conservation as a pledge conditional to raise funds for conservation and climate change adaptation (NISA 2011; Statehouse 2011; GoS 2013; Klaus 2015). These goals would exceed the previous 10% commitment to the Convention on Biodiversity and UN Sustainable Development Goals.

To achieve the designation and implementation of a 30% marine protection goal, the Government of Seychelles and The Nature Conservancy worked together to develop an award-winning innovative finance model using a debt conversion. Beginning in 2012 and finalised in Feb 2016, discussions with creditors led to the finalisation of a \$21.6 million debt conversion for Seychelles for conservation and climate change adaptation. The negotiations with the creditors included restructuring of debt, creation of an independent conservation trust, and developing a Marine Spatial Plan (MSP) for the EEZ that will result in approximately 400,000 square kilometres of marine protections.

To manage the proceeds of the Debt Swap and to support the long-term management and expansion of Seychelles' system of Protected Areas and marine conservation projects an independent, nationally based, public-private trust fund was established called the Seychelles Conservation and Climate Adaptation Trust (SeyCCAT) which became operational late 2016. Since 2018, SeyCCAT also manages an additional US\$3M of a World Bank supported sovereign blue bond, bringing total funding to approx. USD \$700,000 per annum.

The Seychelles MSP has three objectives: expand marine protection to 30% of EEZ, support climate change adaptation and advance the Blue Economy (Smith et al. 2019). The Seychelles MSP Initiative advances national legislation, policies and initiatives, as well as voluntary international obligations and commitments. At the international scale, the SMSP directly supports the Government of Seychelles' commitment to the UN Convention on Biological Diversity (UN CBD) and the UN Sustainable Development Goals (UN SDG) for 10% marine protection by 2020. The Seychelles' commitment to 30% marine protection by 2020 is an inspiration to other Small Island Developing States for conservation, climate change adaptation, and sustainable uses of marine resources.

At the national level, the SMSP collaborates, integrates and aligns with numerous Seychelles projects and initiatives related to expanding marine protection and improving ocean management including Seychelles Blue Economy agenda, the Mahé Plateau Demersal Fisheries Co-Management Plan, Port Master Plan, a GoS-UNDP-GEF Protected Areas project, a GoS-UNDP-GEF Outer Islands Project, and a GoS-UNDP-GEF Protected Areas Financing project, Bio-Financing Project, SAPPHIRE and WIO-LAB projects, the Mariculture Masterplan, Seychelles Upstream Petroleum Policy, and the Blue Economy Roadmap (Table 1).

The aim of the Outer Islands project is to promote the conservation and sustainable use of terrestrial and marine biodiversity in the Seychelles' Outer Islands by expanding the coastal and marine protected areas sub-system in the outer islands and strengthening protected area management, supported by broad-scale ecosystem planning and sustainable land management activities to conserve ecosystem functions. The project is working with a sample outer island sites namely the atolls of Darros, St Joseph, Alphonse, St François, Desroches and Farquhar, that are operating under public-private-civil society partnership agreements. It consists of the following two components: establishment of new protected areas and development of institutional frameworks supporting the integrated management of the new Protected Areas.

Table 1. Key dates for SMSP Initiative, Outer Islands Project and other key projects

Year	Key Event
2012	Seychelles commits to protect 30% of the EEZ and 50% of terrestrial area
2013	Seychelles endorses a new Protected Areas Policy
December 2013	Strengthening Seychelles' Protected Area System through NGO management modalities (GoS-UNDP-GEF PA Project) inception workshop
January 2014	Seychelles signs Abu Dhabi Blue Economy Declaration
February 2014	Seychelles initiates the Seychelles MSP initiative, with TNC and GOS-UNDP-GEF
August 2014	Expansion and Strengthening of the Protected Area Subsystem of the Outer Islands of Seychelles and its Integration into the Broader Land and Seascape (GoS-UNDP-GEF Outer Islands Project) inception workshop
November 2015	SeyCCAT ACT (Act 18 of 2015)
February 2016	Debt Swap agreement finalised
November 2016	SeyCCAT operational
September 2017	MSP Policy drafted
November 2017	Cabinet approval for preparation nomination file MSP Phase I, Milestone 1 areas
February 2018	MSP Milestone 1 completed – 15% marine protected gazetted
March 2018	MSP Phase 2 Inception Workshop
July 2018	Cabinet approval to develop governance framework to implement MSP: Ocean Authority
2018-2019	Socio-Economic Analysis of impact of MSP on Industrial Tuna Fisheries (MEECC, TNC, SFA)
2018-2019	Financing and costing analysis for 30% marine protection areas (GoS-UNDP-GEF PA Finance Project, TNC, SeyCCAT)
2018-2020	Pilot electronic monitoring on purse seine and longline vessels
November 2018	Cabinet approval for preparation nomination file MSP Phase 2, Milestone 2 areas
April 2019	MSP Milestone 2 completed – 26% marine protection gazetted
March 2019	Milestone 3 Inception workshop
November 2019	Cabinet approval for preparation nomination file MSP Phase 2, Milestone 3 areas

Existing and future activities

Seychelles is a high income economy with one of the highest GDP per capita in Africa (World Bank). The strength of Seychelles' economy comes from two main sectors – fishing and tourism - and as far back as 1969, the Government of Seychelles recognised through the Tourism policy of 1969 that *'the attractions that tourists will seek, and above all to protect the natural beauty of these islands, which from all points of view, including tourism, is probably our greatest asset'*.

The Mahé plateau is the centre of Seychelles' economic activities, with additional activities in the Outer Islands. Tourism contributed more than US \$969.3 M to Gross Domestic Product (GDP) in 2017, representing 26.4% of total GDP that year (WTTC 2018). Tourism is expected to rise 2-3% per annum and contribute 24% to GDP in 2028. More than 300,000 visitors travel to Seychelles each year (NBS 2018). The 115 islands throughout the archipelago are either public or privately owned and nature-based tourism and recreation including marine charters, SCUBA diving, sport fishing, and other forms of recreation are important economic activities using waters surrounding these islands.

Seychelles has many active fishing sectors. Artisanal fishing uses a variety of gear types that target numerous fish species, invertebrates and other marine species. The Seychelles lies in the heart of the Indian Ocean tuna fishing grounds and has been a regionally significant area for industrial purse seine and pelagic longline fishing since the mid-1980s, with foreign fishing fleets mostly from the Europe and Asia. For the management of tuna populations that are targeted by purse seine, longline and semi-industrial longline fisheries, Seychelles is a member of the Indian Ocean Tuna Commission (IOTC). The purse seine fishery lands the catch in Seychelles and there

are direct and indirect benefits to the economy from this industry including that Seychelles has one of the most productive tuna canneries in the World - the Indian Ocean Tuna (IOT) Ltd. Cannery (GoS 2014; Chassot 2017) and more recently has developed state-of-the-art cold storage facilities. The industrial longline fishery harvests tuna in Seychelles EEZ but lands the catch and supplies the vessels elsewhere.

All foreign owned fishing vessels are excluded from shallow water areas less than approximately 200 m depth as per Regulation 5 of the Fisheries Act (2012; Cap 82). Seychelles has also banned the use of spear guns and bottom trawling under the Fisheries Act and is developing and discussing new measures for sustainability. Concerns about ecosystem damage or impacts are of high concern in Seychelles and the Seychelles MSP integrates numerous discussions about fisheries to the zoning and management considerations. There is an urgent need to address overfishing, especially of yellow fin tuna, by-catch and management of Fish Aggregation Devices (FAD).

There is need for increased capacity to assess population status of all harvested species, manage species and habitats for sustainability, and for research into the productivity of the area to ensure long-term sustainable fisheries. Recently, through the assistance of a World Bank Project, USD \$25M for sustainable fisheries and marine resource conservation has been brought to Seychelles to refocus the demersal fishery development around a sustainable Blue Economy. The project focuses on the Mahé plateau area and the ‘Seychelles Mahé Plateau trap and line fishery co-management plan’ is the first phase of the project, approved by the cabinet of Ministers in Nov 2017. A new Fisheries Comprehensive Plan has been developed by Ministry Fisheries and Agriculture and contains new measures to improve fisheries management.

There is a short history of aquaculture in Seychelles. In 1989, the Islands Development Company (IDC), a parastatal organisation, and the Seychelles Marketing Board (SMB) established a prawn farm on Coëtivy to produce black tiger prawns. The location was used because it is the closest coral island to Mahé that was large enough to support the prawn farm (Muylder *et al.* 1996). The prawn farm ceased operation in 2009. In 2011 a decision was taken by the Government of Seychelles to develop a Mariculture Master Plan (MMP) in anticipation of developing a new Aquaculture Industry in the Seychelles. The MMP is a tool “enabling the Seychelles to develop a sustainable marine aquaculture sector that is integrated into the country’s economic vision and respects the unique and sensitive nature of the marine environment.” The Seychelles MMP facilitates the development of the aquaculture industry in Seychelles and is centred on the Ecosystems Approach to Aquaculture (EAA). The MMP was finalized at the end of 2015 (SFA 2019).

Geological and geophysical surveys have been undertaken since the 1970s to explore and define the limits of the continental shelf, and for energy resources. PetroSeychelles is a parastatal organisation, responsible for exploration and development of Seychelles’ energy resources.

Stakeholder engagement

The SMSP is using a phased approach to build a marine spatial plan using an ecosystem-based management approach (Ehler and Douvere 2009) with three milestones over seven years (Annex II). The planning process began in February 2014 and will be completed by December 2020, with implementation starting in 2021. Phase 1 was from 2014-2017 and the first milestone of the debt swap was fulfilled after designating and signing into law 15% or 208,000 km² in new marine protection zones in Feb 2018. Phase 2 contains two milestones and the remaining 15% of the 30% protection goal.

Government and parastatal agencies, non-governmental organisations, private sectors, and the public are engaged with the SMSP including from fisheries, tourism, biodiversity conservation, energy, ports, maritime safety, non-renewable resources, recreation, and finance. Decisions are

taken using a transparent governance framework with committees, technical working groups, public workshops, and one-to-one meetings. The SMSP also briefs Ministers, Cabinet of Ministers, and the members of the National Assembly.

In all, the MSP initiative has held more than 210 meetings, consultations and workshops since 2014 (Annex III) and an additional 52 workshops held by the GOS-UNDP-GEF Outer Islands Project for four specific areas in the outer islands: Desroches, Poivre, Alphonse and Farquhar. In Milestone 3 alone (2019), more than 50 meetings, consultations and workshops have been held. Meeting notes are summarised in minutes, posted to the SMSP website and shared at the next stakeholder meeting. Information from the GOS-UNDP-GEF Outer Islands Project is available on a website and by contacting the project office. All comments, suggestions, advice, and recommendations inform on-going discussions including implementation considerations - enforcement, monitoring, and management plans.

Zoning design

All areas in this nomination file were proposed during extensive consultations with stakeholders, with scientific analyses of best available data, and reaching agreement for support with all marine sectors. The SMSP is an active and iterative planning process and may, when it has the support of the stakeholders, propose areas to advance the biodiversity protection goal. The areas proposed at each milestone may involve a change in the boundary in future proposals, subject to stakeholder agreement and government approval.

The 30% marine protection is half “no take” areas to protect marine biodiversity resources and half sustainable use and biodiversity conservation. In response to climate change threats (e.g., warmer ocean temperatures, sea level rise) and uncertainty surrounding the effects that these events will have on the marine ecosystem, the government has adopted the precautionary principle and is making management decisions that are conservative for the water surrounding Seychelles. This approach is supported by the scientific community, including recent studies that show the importance of large, effectively managed marine reserves to support climate change resilience of the oceans to increasing threats including ocean acidification, decreased productivity and oxygen availability and cumulative effects from human activities (Roberts *et al.* 2017). The 30% goal is both by area and by representation for species and habitats, and because of the large size of Seychelles’ EEZ, the waters were stratified by planning units in deep water (> 200 m) and shallow water (\leq 200 m). The methodology and framework are summarised in Annex V and VI, respectively.

The objectives for, and management of, new marine protections in deep water will be different than in shallow waters because the biodiversity is different, the sensitivity to human disturbance is different, and the status and condition of the species and habitats are different. In shallow waters, for example, protections for coral reefs not only contributes to the long-term health of these ecosystems and supports fishing and tourism activities, it also supports coastal protection functions such as during high winds and tides. In deep water, there are many benthic features that only occur at these depths including seamounts, mountains, guyots, canyons and plains. Pelagic ecosystems typically function at much larger scales than shallow and nearshore ecosystems, and include marine organisms that migrate hundreds or thousands of kilometers to forage and/or breed. The zoning design proposals are developed using all best available data and information from stakeholders, and are incorporating information on surface currents, archipelagic ecosystems, life history, and gradients of biodiversity so as to include areas identified as priorities for marine biodiversity conservation and avoid overlap with high priority areas for socio-economic activity yet are close enough to source populations that they can be seeded by currents and replenished (e.g., Andrello *et al.* 2016).

2 Designation of marine protection areas

The Seychelles Marine Spatial Plan is being developed as a regulatory plan, where zones will be legally designated and enforced. The SMSP Zoning Framework is an objective-based framework that contains three zone categories: Zone 1: high protection of marine biodiversity; Zone 2: medium protection of biodiversity and sustainable uses; and Zone 3 multiple uses (Annex VI). The zoning categories correspond to the MSP objectives for 30% marine protection goal (zones 1 and 2), sustainable economic development (zone 2 and 3), climate change adaptation (all zones), and advancing the Blue Economy roadmap (all zones).

The SMSP Zone 1 areas are proposed for designation in a protected area category that aligns with an objective for a high level of marine biodiversity protection and limited uses. Allowable activities will be compatible with this objective and would not include extraction, commercial harvest or disturbance. Proposed allowable activities for Zone 1 can be found in Annex IX.

The SMSP Zone 2 areas are proposed for designation in a protected area category that aligns with an objective for medium biodiversity protection and sustainable uses. Allowable activities will be compatible with this objective and would include some extraction, commercial harvest, seabed disturbance and economic development.

Existing legislation has been examined and the National Parks and Nature Conservancy Act (NPNCA) will be used again for designation in Milestone 3. The Zone 1 areas are being proposed in the category of ‘(Marine) National Park’. Legislation does not currently exist for a protected area with a biodiversity and sustainable use objective however legislation is being developed for a new ‘sustainable use area’ category that fits with this objective. Until this new legislation is approved by government, the Zone 2 areas will be gazetted using the ‘(Marine) Area of Outstanding Natural Beauty’ (AONB) category in the NPNCA. Both Zone 1 and Zone 2 areas will be re-designated when the new legislation is approved, as (Marine) National Park and (Marine) Sustainable Use Area, respectively.

The proposed areas may overlap or surround existing maritime zones or boundaries for other objectives or management purposes, for example fisheries closures or restricted areas, ports boundary, and areas to be avoided for international shipping. These existing maritime boundaries are noted in the descriptions below and in the coordinates descriptions (Part C). The management plans for the MSP areas will provide information related to integration and coordination with other maritime zones or boundaries and the relevant policies, regulations and management plans.

3 Areas for high biodiversity protection

Stakeholder comments for the proposed areas in this category are summarised in Annex VII. Draft management considerations and allowable activities are presented in Annex VIII and IX, respectively.

General description, rationale and map

Areas being proposed for designation, or re-designation, for protected area status in high biodiversity protection are: Bird Island, Darros, Darros to Poivre Atolls, Amirantes South and Aldabra Group (Marine) National Park (Figure 1). Together, these five areas include 61 of 82 biodiversity conservation features (species and habitats), and encompass 203,071 square km (15.15%) for high biodiversity protection status.

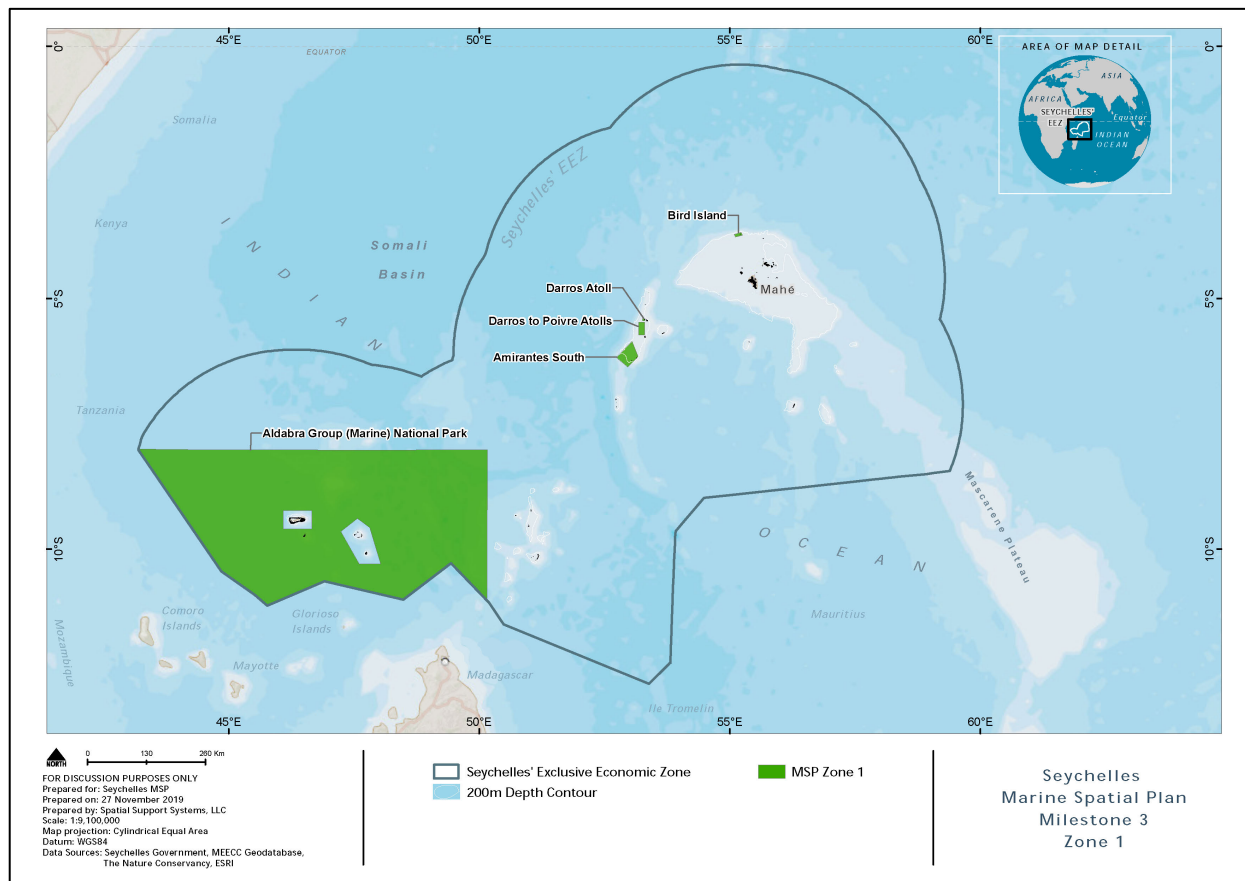


Figure 1. Milestone 3 areas proposed for high marine biodiversity protection (SMSP Zone 1)

The majority of the proposed areas for high protection status are in the outer islands of the Seychelles. The outer islands consist of over half the 115 islands in the Seychelles archipelago and more than 90% of the total reef area of the country. Prior to the start of the SMSP, there were three marine protected areas for biodiversity conservation in the outer islands: Aldabra (Marine) Special Reserve, and Boudeuse and Etoile Nature Reserves.

The expansion of areas for high protection status are proposed based on stakeholder consultations since 2014 and includes the waters surrounding Aldabra Atoll, which received high support for protection in all 3 milestones. In Milestone 2, it was agreed to remove an area that was being proposed in the central pelagic waters of the EEZ because it contained 3% of the annual total catch for industrial purse seine and instead expand the protection of Aldabra Group to the north and east. Consultations with industrial longline in October resulted in a revision to reduce the northward expansion to avoid a high catch area and instead expand westward to the EEZ boundary and simultaneously reduce overlap with an area proposed for high protection in Milestone 3. PetroSeychelles has agreed to forego all future development in this region for petroleum exploration. Stakeholders were in agreement that geological surveys for research were conditionally allowable in this protected area category, understanding the importance for the determination of the continental shelf and EEZ boundary. There are reports of illegal fishing (IUU) and concerns of overfishing in these waters so removing all fishing pressure is supported by stakeholders.

Aldabra Atoll was designated a (Marine) Special Reserve in 1981 and the atoll as an UNESCO World Heritage site in 1982. Aldabra (Marine) Special Reserve is the most isolated protected area of Seychelles and contains the second largest raised coral atoll in the world by dry land area (SIF 2016). In 2015, the Cabinet of Ministers approved for the extension of the boundary of the Aldabra

Special Reserve to the 3 km depth contour line and this was gazetted in 2018. The extension increases the reserve from 346 to 2,559 km² (SIF 2016). Aldabra Atoll is globally recognized by Birdlife International as an Endemic Bird Area (EBA) and Important Bird and Biodiversity Area (IBA) (Birdlife International 2017). The Atoll contains a Ramsar wetland of international importance, an area of 439 km² (Ramsar 2014).

Surrounding Aldabra is an Area of Avoidance owing to sensitivity of habitats, approved by the International Maritime Organisation (IMO) on navigational charts. This designation is primarily to deter oil tankers from coming within 30 nm of the Atoll (SIF 2016).

In the Amirantes, three areas are being proposed for high protection status in Milestone 3: the waters surrounding Darros, the shallow waters between Darros and Poivre Atolls, and the waters surrounding Etoile, Boudeuse, Desnoeufs and Marie-Louise Atolls. These areas are being proposed because they contain significant percentages of biodiversity features that were identified by stakeholders as priorities for new marine protections (Klaus 2015). The particular designs were discussed and amended during consultations of the MSP in Milestone 3, in particular with the domestic fishing and marine charter stakeholders. The proposals contain mostly shallow features and limited areas within the dropoff, where sport fishing is important for the tourism and fisheries sectors.

On the Mahé Plateau, an area that includes the shallow waters surrounding Bird Island (Ile aux Vaches) is the only proposal that received a high level of support. This area surrounds Bird Island, extends westward along the plateau, and does not include the dropoff.

See below for the tables that describe each proposed high biodiversity protection area.

Aldabra Group (Marine) National Park

Name: <i>Aldabra Group (Marine) National Park</i>		Size: 201,235.80 km ²
Milestone: 3	Zone: 1	Percent of EEZ: 14.89 %
Primary Objective:	To expand high protection status for the waters and seabed surrounding the Aldabra Group and other atolls.	
Geographical Description:	<p>This area is in the south west of Seychelles' EEZ and extends from north of Aldabra Group west to boundary with Tanzania and south to boundary of the EEZ. The eastern boundary of this area is west of Farquhar Archipelago.</p> <p>Note: the EEZ boundary is not finalised in all areas. Coordinates for the EEZ are accurate as of November 2019 and the coordinates of this area always will align with the existing EEZ boundary, which may change on review and revision by Government of Seychelles.</p>	
Existing Marine Designations:	<p>Aldabra (Marine) Special Reserve (2018)</p> <p>Foreign Fishing Prohibited Area #9 (Aldabra and Assomption): 6,971 km²</p> <p>Area to be Avoided (International Maritime Organisation, IMO)</p>	
Ecological Description:	<p>This area contains shallow, pelagic and deep sea habitats surrounding Aldabra Group including "Giraud" and "Tchernia" seamounts, canyons, slope, hills, mountains and plains. Species associated with the area include demersal and pelagic fish, turtles, sharks, rays, cetaceans and seabirds. Unique shallow water habitat features are found only in this part of the EEZ because of the distinct geological features inside the Aldabra (Marine) Special Reserve – the second largest raised atoll in the world. Foraging habitat of frigatebirds and humpback whale breeding habitat. The area includes a portion of WIOMER expert polygon for upwelling (#47). Scientific research in Aldabra Group shows high fish biomass in waters surrounding the atolls and islands, the highest in the EEZ (Friedlander <i>et al.</i> 2017). The waters contain important populations of sharks and there is concern about decline of top trophic predators in key habitats. Lagoons are shark and fish nurseries.</p>	
Summary of Biodiversity Representation:	<p>Contains 41 biodiversity features. There 16 of 44 habitat conservation features, 25 of 38 species conservation features including 6 seabirds, 14 cetaceans, 11 deep water and 5 shallow water habitats, 1 BirdLife IBA, turtle foraging and nesting habitats, and 1 WIOMER site. Cetacean distributions overlap 98% of the area and WIOMER regional priority site covers 65%. Frigatebird foraging covers 48%, deep water features such as abyssal plains and hills and deep sea mountains cover 33%, 22% and 11% respectively. Only remaining location with <i>Dugong dugong</i> in Seychelles. Migration route for calving Southern Ocean humpback whales, <i>Megaptera novaeangliae</i> (Appoo <i>et al.</i> 2019).</p>	
Economic Description:	<p>Marine charters for sport and big game fishing surrounding the atolls with live-aboard charters. The atolls are important as "safe havens" in bad weather. Subsistence fishing occurs for staff and volunteers on the islands. Cruise ships visit Aldabra and guests transit via Assomption Island, where there is an airstrip. Since the 1970s, the waters have been used for tuna fishing (Seychelles-flagged and foreign flagged) with purse seine and longline gear. International shipping passes to the west of Aldabra, coming within 12 nautical miles of the Atoll. Marine research and monitoring is conducted by Seychelles Island Foundation. Radar stations to monitor vessel traffic are on Assomption and Astove.</p>	
Possible New Future Uses:	<p>In 2017, a proposal was being developed for a "Particularly Sensitive Sea Area" (PSSA) for the waters surrounding Aldabra Atoll. This is currently on hold until new capacity to lead the file. IDC has a development plan (2018-2023) that includes potential future tourism on Assomption.</p>	
Comments:	<p>Aldabra Group (Marine) National Park was designated in Milestone 1. The area was expanded and re-designated in Milestone 2. The area is proposed for expansion in Milestone 3 and re-designation.</p>	

Bird Island (Ile aux Vaches) (Marine) National Park

Name: Bird Island (Ile aux Vaches) (Marine) National Park		Size (square kilometres): 106 km ²
Milestone: 3	Zone: 1	Percent of EEZ: 0.008 %
Primary Objective:	To expand high protection status for marine biodiversity to waters surrounding Bird Island, one of the two coralline cays that exist on the Mahé Plateau.	
Geographical Description:	Bird Island lies approximately 100 km north of Mahé. This boundary includes Bird Island and shallow waters to the west and south. It does not include Silhouette Bank.	
Existing Marine Designations:	Foreign Fishing Prohibited Area #1 (Mahé Island & Seychelles Bank): 63,891 km ² International Shipping “Area to be Avoided” (British Admiralty Charts)	
Ecological Description:	<p>One of only two coralline cays on the Mahé Plateau. High species diversity due to close proximity to the edge of the shallow water shelf of the northern Mahé Plateau. Proximity to deep water canyons, high depth gradients and upwelling. Bird Island is a significant seabird colony in Seychelles with large colonies of Sooty Terns, Brown Noddies and frigatebirds. Breeding birds forage in waters beyond the drop-off and tagging studies from scientists in Seychelles obtained evidence of breeding birds, and young-of-the year birds, traveling north to Coco de Mer as well as well beyond Seychelles EEZ. Bird Island has nesting sea turtles as well as ray species. High biodiversity relative to the size of the area. Bird Island is recognized internationally as a key foraging and nesting area used by 9 seabird species (Skerrett and Disley 2011).</p> <p>Coral bleaching is a concern for the reefs contained in this zone and extensive coral bleaching did occur during the warming events of the 1997-1998 El Nino and 2016-2017 (Graham <i>et al.</i> 2015).</p>	
Summary of Biodiversity Representation:	Contains 34 biodiversity features. Contains 9 of 44 habitat conservation features and 25 of 38 species conservation features: 9 birds, 9 cetaceans, 1 deep water feature, 4 shallow water features, 1 BirdLife IBA, seagrasses, turtle nesting and foraging habitats, and 1 WIOMER site. The WIOMER site covers 100%, seagrasses cover 26% of the area. Frigatebird foraging covers 100%. Area is 99% shallow water continental shelf habitat	
Economic Description:	Bird Island is privately owned since 1967 and managed for eco-tourism, nature tourism, and conservation including scientific research. There is an airstrip on Bird Island as well as shelter for anchoring. Charter operators for tourism, sport-fishing and recreational fishing, including tournaments, and subsistence fishing for staff use the drop off waters and to south and west of Bird Island. Silhouette Bank is used by artisanal fishing, beyond the Zone 1 area boundary. Petroleum exploration and development voluntarily excludes waters within 5 km of the island. Active and expired licensed blocks are in close proximity to Bird Island to the east. Shipping and transportation are directed to passage between the IMO “Areas to be Avoided” on Mahé Plateau. In bad weather, Bird Island provides safe haven for vessels. Artisanal, semi-industrial and sport fishing use the banks near Bird Island and the drop-off.	
Possible New Future Uses:	None identified 2014-2019.	
Comments	<p>The proposal has also been specifically discussed with owners and managers of Bird Island for implementation and management. There is interest to manage the waters for high protection status.</p> <p>This island is in the Seychelles gazette as Ile aux Vaches. Also sometimes in other documents as Ile aux Vaches Marine.</p>	

Darros Atoll (Marine) National Park

Name: <i>Darros Atoll (Marine) National Park</i>		Size: 25 km ²
Milestone: 3	Zone: 1	Percent of EEZ: 0.002%
Primary Objective:	To expand high marine protection for representative habitats and species found around Darros.	
Geographical Description:	This area surrounds Darros Atoll on the Amirantes Bank, west of Desroches and St Joseph. The area is approximately 35 km south of Remire. The boundary avoids a deep water area north of Darros and does not include St Joseph Atoll	
Existing Marine Designations:	Foreign Fishing Prohibited Areas #5 (Amirantes): 17,285 km ²	
Ecological Description:	Shallow marine habitats include seagrasses, coral reef structures, platform reef, atoll like rim, platform reef lagoon, and submerged reef flats. Species associations with marine habitats include demersal fish, invertebrates, cetaceans, turtles, sharks, rays, and seabirds. The adjacent upwelling areas are used by pelagic marine life (whales, sharks, seabirds, pelagic fishes). Scientific studies at Darros have found ray aggregations with high degree of regularity (SOSF-DRC, 2019). Comprehensive description of the ecology and biodiversity of Darros and surrounding waters can be found in numerous publications including those from the D'Arros Research Centre, that can be accessed via Save Our Seas website. A new species of fish was found at Darros in May 2019, Daly's dwarf goby, <i>Eviota dalyi</i> (Greenfield and Gordon 2019)	
Summary of Biodiversity Representation:	Contains 36 biodiversity features. Contains 9 of 44 habitat conservation features and 27 of 38 species conservation features: 9 birds, 11 cetaceans, 7 shallow water, 1 BirdLife Important Bird and Biodiversity Area (IBA), seagrasses, turtle nesting and foraging habitats, 1 WIOMER site. Cetacean distributions overlap 78% of the area. WIOMER covers 100%. Frigatebird foraging covers 99%. High representation of platform reef infilled rim – one third of the 30% conservation goal is found here. Small amount of feature called sand cay with phosphatic sandstone.	
Economic Description:	This is a private atoll since 1975. This area is low importance for artisanal fisheries in the Amirantes Group - 16% overlap with the top 50% of artisanal locations. Tourism, sport-fishing and live-aboard yacht charters occur in waters surrounding atoll St Joseph and Darros Atolls. St Joseph, east of Darros, is very important for fly fishing and is noted as one of the best locations in Seychelles. Historic sea cucumber fishing locations averaged 167 per year (2003-2012) around Darros.	
Possible New Future Uses	None identified 2014-2019.	
Comments	<p>During stakeholder consultations and meetings, the original proposed boundary included St Joseph and D'Arros Atolls. The boundary for Zone 1 and high protection was revised in Milestone 3 discussions to include just the Darros Atoll because of the importance of St. Joseph for sport fishing including fly fishing.</p> <p>Discussions are ongoing with managers of the atoll for input on the proposal. Save Our Seas Foundation- Darros Research Centre has indicated they are supportive for increased protection for waters surrounding D'Arros and St. Joseph Atolls. In Milestone 3, waters surrounding St. Joseph are proposed as Zone 2 in the Amirantes to Fortune Bank boundary.</p> <p>Spelling for this atoll sometimes appears as D'Arros.</p>	

Darros to Poivre Atolls (Marine) National Park

Name: <i>Darros to Poivre Atolls (Marine) National Park</i>		Size: 370 km ²
Milestone: 3	Zone: 1	Percent of EEZ: 0.03%
Primary Objective:	To expand marine protection and create ecosystem connectivity within Amirantes for representative habitats and species found on the Amirantes Bank between D'Arros and Poivre Atolls.	
Geographical Description::	The area includes bank habitats south of Darros and north of Poivre Atolls. The area is approximately 28 km north to south, and 12 km east to west.	
Existing Marine Designations:	Foreign Fishing Prohibited Areas #5 (Amirantes): 17,285 km ²	
Ecological Description:	Situated entirely on the shallow water shelf (<200m), marine habitats include seagrasses, high relief bank reef infilled rim. Species associations with marine habitats include demersal fish, invertebrates, cetaceans, turtles, sharks, rays, and seabirds.	
Summary of Biodiversity Representation:	Contains 35 biodiversity features. Contains 11 of 44 habitat conservation features and 24 of 38 species conservation features: 9 birds, 11 cetaceans, 7 shallow water, 1 BirdLife IBA, seagrasses, turtle foraging habitats, 1 WIOMER site. 100% overlap with all cetaceans except Orca at 54%. WIOMER covers 100%. Seagrasses cover 46%. Frigatebird foraging covers 99%. Medium relief, shelf bank lagoon covers 65%. This area facilitates habitat connectivity along the shallow water shelf (<200m) of the Amirantes Bank. The area represents 50% of all high relief platform reef atoll like rim and high relief bank platform reef sand cay rim.	
Economic Description:	Artisanal fishing, sport-fishing, tourism (yacht charters, diving) use this area. Low relative value of this area for domestic fishing with 8% of the area overlapping with the top 50% artisanal fishing locations. Historic sea cucumber fishing locations (2003-2012) indicate approx. 200 vessel locations per year, third behind Amirantes South and Poivre. The indication from stakeholders is that sea cucumber in this area is overfished. The drop-off areas are not in this zone because of the importance for local marine charters, sport fishing, artisanal and semi-industrial fisheries.	
Possible New Future Uses	None identified 2014-2019.	
Comments:	This area was proposed in discussions with fisheries association representatives on Mahé, for suggestion of areas in shallow waters of Amirantes for high protection status.	

Amirantes South (Marine) National Park

Name: <i>Amirantes South (Marine) National Park</i>		Size: 1,335 km ²
Milestone: 3	Zone: 1	Percent of EEZ: 0.1%
Primary Objective:	To expand marine protection for representative habitats and species surrounding Marie-Louise, Boudeuse, Etoile and Desnouefs Atolls, and the shallow bank habitats in the southern Amirantes.	
Geographical Description:	This area is located on the southern end of the Amirantes Bank and includes waters surrounding the islands of Etoile, Boudeuse, Desnouefs, and Marie-Louise.	
Existing Marine Designations:	Etoile Nature Reserve Boudeuse Island Nature Reserve Foreign Fishing Prohibited Areas #5 (Amirantes): 17,285 km ²	
Ecological Description:	<p>Shallow waters include seagrasses, submerged reef flats, platform reef with rocky rim, and ridge features. Species associations with marine habitats include demersal fish, invertebrates, cetaceans, turtles, sharks, rays, and seabirds. The 200 m drop-off and upwelling areas are used by pelagic marine life (whales, sharks, seabirds, pelagic fishes). All islands within this zone have large bird populations. Marie-Louise has the only colony of Red-footed Boobies in the Amirantes.</p> <p>This area facilitates habitat connectivity along the shallow water shelf (<200m) of the Amirantes Bank, and between the shallow water shelf and adjacent high gradient continental slope. Situated at the southwest margin of the Amirantes Bank, the area experiences significant north to south ocean currents during the southeast monsoon. Etoile and Boudeuse are adjacent to upwelling areas that may serve as thermal refuge during ocean warming events.</p>	
Summary of Biodiversity Representation:	Contains 40 biodiversity features. Contains 15 of 43 habitat conservation features and 25 of 38 species conservation features: 7 birds, 11 cetaceans, 3 deep water, 8 shallow water, 1 BirdLife Important Bird and Biodiversity Area (IBA), seagrasses, turtle nesting and foraging habitats, 1 WIOMER site. 88% overlap with all cetaceans. WIOMER covers 100%. Seagrasses cover 76%. Canyons cover 9%. Multiple shallow habitat features including platform reefs and submerged reef flats.	
Economic Description:	Marine charters and big game/sports fishing use this area. Historic sea cucumber fishing locations (2003-2012) show variable and high use, average 557 mean fishing locations per year. Waters surrounding Desnouefs relatively important within the Amirantes for artisanal fishing - 73% overlap with the top 50% of artisanal locations. There is an airstrip on Marie-Louise, operated and maintained by IDC. Sea access to this island is very dangerous. There is a desalination plant on Marie-Louise.	
Possible New Future Uses	Studies underway on Marie-Louise to examine conservation, restoration and enhancement of the ecosystems. Development plans may include small eco-tourism project on Marie-Louise by IDC.	
Comments	Revisions to the design in this area reduced the overlap with sea cucumber fishing locations by 19%. The conversations with stakeholders (biodiversity, fisheries, marine charters) reached a compromise for biodiversity and marine uses. Proposals for high biodiversity areas near African Banks were exchanged for the water surrounding these islands, with avoidance of key drop-off locations for sport fishing, charters and artisanal or semi-industrial fishing.	

4 Areas for medium biodiversity protection and sustainable uses

Stakeholder comments for the proposed areas in this category are summarised in Annex VII. Draft management considerations and allowable activities are presented in Annex VIII and IX, respectively.

General description, rationale and map

The eight areas being proposed for medium biodiversity protection and sustainable uses are: Amirantes to Fortune Bank, Denis Island, Desroches Atoll, Poivre Atoll, Alphonse Group, Farquhar Atoll, Farquhar Archipelago and Cosmoledo and Astove Archipelago (Figure 2). Together, these areas include more than 40 biodiversity conservation features and encompass 238,442 square km (17.64%). These areas have received high support from stakeholder consultations in Milestone 3, and support or contribute to the MSP objectives for biodiversity protection, advancing the Blue Economy and climate change adaptation.

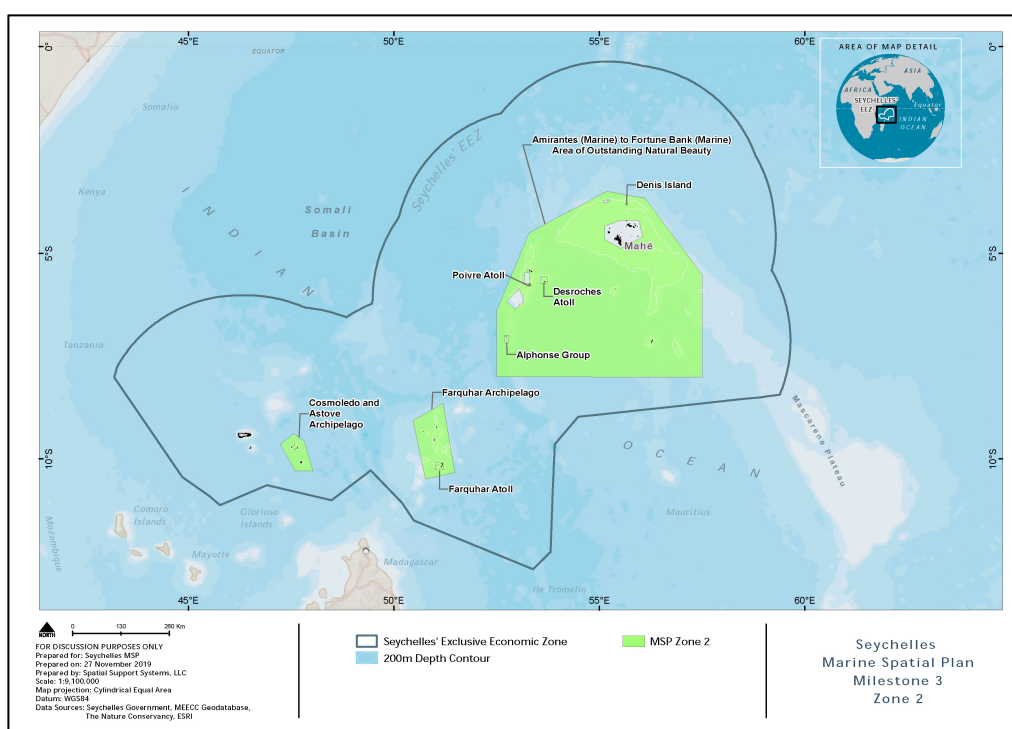


Figure 2. Milestone 3 areas proposed for medium biodiversity protection and sustainable uses (Zone 2)

The rationale for proposing the following areas for biodiversity and sustainable use areas is because they have moderate to high marine biodiversity values and are also important sites for sustainable uses and activities in support of Seychelles' economy and culture. These areas are important for the sustainable economic development of fishing, tourism, and other sectors as well as research activities that support Seychelles' delineation of its maritime boundaries.

Protection status that includes sustainable uses and activities will improve protection of lagoons, shallow waters and reef habitats within the Seychelles protected seascape and support the advance of Seychelles' Blue Economy in these locations for local food security and other goals. There are existing economic and recreational uses and activities in the waters surrounding most atolls including internationally renowned saltwater fly-fishing that uses catch and release techniques, blue-water fishing, snorkelling, diving and wildlife watching. The island and boat-based

organisations or companies that undertake tourism activities are committed to sustainable uses and biodiversity conservation in Seychelles.

In Milestone 2, stakeholder consultations from March to October 2018 resulted in a proposal to extend the boundary for “Amirantes to Fortune Bank” southward to improve design for monitoring and enforcement and include more of the waters used by domestic fisheries and tourism. This revision expanded protection for key habitats in the Amirantes Basin and captured new areas including Le Vasseur Seamount. In October and November, Technical Working Groups, Steering Committee and Executive Committee supported this proposal for Milestone 2 including artisanal and semi-industrial fishing, tourism, oil & gas, maritime safety and security, purse seine and industrial longline representatives. The local fishing boat owner’s associations supported this proposal and commented that they can see their suggestions and recommendations have been taken in to account from previous consultations and zoning designs.

Discussions in 2019 for Milestone 3 showed high support for expanding “Amirantes to Fortune Bank” and including the shallow water areas surrounding Coëtivy, Platte, Alphonse, remaining islands in the Amirantes within this boundary as well as shallow water areas of the Farquhar and Cosmoledo and Astove Archipelagoes.

On the Mahé Plateau, Denis Island is being proposed as a Zone 2 category protected area and has received high support from stakeholders. The waters surrounding Denis Island are important for sustainable uses by the tourism visitors to Denis Island and also for artisanal fishing from Inner Islands.

In the Outer Islands, Desroches, Poivre and Farquhar Atolls are being proposed for Zone 2, as well as the Alphonse Group. Discussions with stakeholders have been held with the MSP Initiative and the GoS-UNDP-GEF Outer Islands Project for all of these areas, with boundaries amended as per stakeholder discussions as well as proposals for the draft allowable activity tables (see Annexes III through IX).

Sustainable activities are key in this zone category and the use of FADs for industrial tuna fishing have been raised as a concern for impacts on ecosystems including target species, bycatch and ecosystem effects. Enforcement is also needed for commercial ships entering and leaving Port of Victoria to use the channel designated by the “Areas to be Avoided”.

As previously noted above in the section on designations, the areas proposed in this category are being proposed for designation using the National Parks and Nature Conservancy Act (NPNCA) category for ‘Area of Outstanding Natural Beauty’ (AONB) and will be redesignated when legislation is approved for a ‘sustainable use area’ category of protected area.

Amirantes (Marine) to Fortune Bank (Marine) AONB

Name: <i>Amirantes (Marine) to Fortune Bank (Marine) AONB</i>		Size: 217,589 km ²
Milestone: 3	Zone: 2	Percent of EEZ: 16.1%
Primary Objective:	To expand for protection and sustainable uses. Medium biodiversity protection status for high diversity of habitats and species in deep and shelf waters from the Amirantes to Fortune Bank and provide important economic opportunities for sustainable uses that support Seychelles' Blue Economy and climate change objectives.	
Geographical Description:	The area is an expansion of the Amirantes (Marine) to Fortune Bank (Marine) Area of Outstanding Natural Beauty gazetted in Milestone 2. This area will be re-designated to include waters from the Amirantes Group east to Fortune Bank.	
Existing Marine Designations:	African Banks Protected Area Boudeuse Island Nature Reserve Etoile Nature Reserve Areas to be Avoided, Mahé Plateau, International Maritime Organisation Foreign Fishing Prohibited Areas #1 (Mahé Island and Seychelles Bank): 63,891 km ² Foreign Fishing Prohibited Areas #2 (Platte Island): 2,377 km ² Foreign Fishing Prohibited Areas #3 (Coëtivy Island): 2,950 km ² Foreign Fishing Prohibited Areas #4 (Fortune Bank): 2,406 km ² Foreign Fishing Prohibited Areas #5 (Amirantes Islands): 17,285 km ²	
Ecological Description:	Deep water marine habitat covers 80% of this area and includes canyons, guyots, seamounts, plateau, slopes, and plains. This area includes "Fred" seamount and ocean currents develop clockwise (SE) and counter-clockwise (NW) currents during monsoon seasons. The 200 m drop-off and upwelling areas are used by pelagic marine life (whales, sharks, seabirds, pelagic fishes). Species associations with marine habitats include demersal fish, invertebrates, cetaceans, turtles, sharks, rays, and seabirds. Shallow habitats include seagrasses, submerged reef flats and bank lagoons.	
Summary of Biodiversity Representation:	Contains 67 biodiversity features. Contains 38 of 44 habitat conservation features and 29 of 38 species conservation features: 9 birds, 12 cetaceans, 15 deep water, 18 shallow water, 1 BirdLife IBA, seagrasses, turtle nesting and foraging habitats, 1 WIOMER site. Cetacean distribution overlaps 100% of area - 11 species. WIOMER covers 46%. Seagrasses cover 7%. High species and habitat biodiversity area with high overlap with pelagic birds and mammals	
Economic Description:	Artisanal, semi-industrial longline, industrial purse seine and longline fisheries occur in this area. High value to industrial purse seine and semi-industrial fishing. Marine charters, sport fishing, other marine recreation and tourism including for deep sea fishing and dive tours in shallow waters and drop-off locations within 20 km of 200m depth contour. Commercial shipping traffic passes between Mahé Plateau and African Banks. PetroSeychelles has active and expired licensed blocks as well as applications on Mahé Plateau.	
Possible New Future Uses:	Land-based aquaculture has been proposed in some areas of the Amirantes (Seychelles Fishing Authority).	
Comments	This area was gazetted in Milestone 1, expanded and re-designated in Milestone 2. Expanded and proposed to re-designate in Milestone 3.	

Denis Island (Marine) AONB

Name: Denis Island (Marine) AONB		Size: 31 km ²
Milestone: 3	Zone: 2	Percent of EEZ: 0.002 %
Primary Objective:	To expand marine protection for biodiversity values and manage for sustainable uses in waters surrounding Denis Island.	
Geographical Description:	Denis Island is approximately 60 km north of Mahé. The boundary of this area is defined by a 2 km buffer zone around Denis Island and adjacent reef structures.	
Existing Marine Designations:	Foreign Fishing Prohibited Areas #1 (Mahé Island & Seychelles Bank): 63,891 km ² International Shipping “Area to be Avoided” (British Admiralty Charts)	
Ecological Description:	<p>Denis is adjacent to productive upwelling and marine ecosystems for seabirds, sea turtles, sharks, cetaceans. The area contains one of two coralline islands on the Mahé Plateau. Upwelling provides nutrients to pelagic and shelf systems. Blue whale breeding habitat has been identified in this area and frigatebird foraging habitat. Seagrass, coral communities and sandflats in shallow habitats.</p> <p>Denis Island is a breeding location for green and hawksbill turtles as well as at five seabird species. Species associations with marine habitats include juveniles and adults of pelagic and demersal fish, turtles, sharks, rays, and seabirds. The area is in close proximity to canyons, seamount and slope habitats.</p>	
Summary of Biodiversity Representation:	Contains 29 biodiversity features. Contains 7 of 44 habitat conservation features and 22 of 38 species conservation features: 7 seabirds, 8 cetaceans, 3 shallow water, 1 BirdLife IBA, seagrasses, turtle nesting and foraging habitats, and 1 WIOMER site. WIOMER covers 100%. Seagrasses cover 38%. Frigatebird foraging covers 100%. Area is 95% shelf habitat. High importance for representation of continental platform sand reef and turtle nesting areas. 100% overlap with BirdLife IBA.	
Economic Description	Privately owned, Denis Island has a holiday resort offering luxury accommodations for tourists. Denis Island is also managed for conservation. Sport fishing and artisanal fishing occur in surrounding waters. There is a 79% overlap with the top 50% of locations for artisanal fishing between 2009 and 2013. Limited seismic surveys have been done near Denis and is in close proximity to active and expired petroleum exploration license blocks held by PetroSeychelles.	
Possible New Future Uses	None identified in 2019.	
Comments	<p>Discussion with owners pending for management or co-management of zone. Discussions with island managers (Green Island Foundation) were undertaken in 2018-2019 for co-management. High support from stakeholders as Zone 2, including to support sustainable artisanal fisheries.</p> <p>SeyCCAT funded project underway in 2019 for improving sustainability of artisanal fishing around Denis Island.</p> <p>Synergy with GoS-UNDP-GEF PA Project which identified the area as a proposed sustainable use area and had a nomination file prepared.</p>	

Desroches Atoll (Marine) AONB

Name: <i>Desroches Atoll (Marine) AONB</i>		Size: 333 km ²
Milestone: 3	Zone: 2	Percent of EEZ: 0.03%
Primary Objective:	To protect Desroches Atoll's lagoons, reefs and surrounding waters for the protection and conservation of marine habitats and biodiversity and to provide economic opportunities for their sustainable use.	
Geographical Description:	This area is located off the eastern edge of the Amirantes Banks, approximately 35 km east northeast of Poivre. The boundary was defined by the GOS-UNDP-GOS Outer Islands Project and is a 14.8 x 17.6 km rectangle encompassing Desroches Atoll, extending not less than 1 km from the outer edge of the reef flat at the closest point and including all areas below MHW.	
Existing Marine Designations:	Foreign Fishing Prohibited Areas #5 (Amirantes) 17,285 km ²	
Ecological Description:	Shallow and deep-water marine habitats include plateau, continental slope, seagrasses, atoll submerged lagoon, atoll submerged rim, and other coral reef structures. The lagoon and outer reefs support a large diversity of invertebrate life. Coral reef fish families are well-represented in the lagoon and on the outer reef slopes; groupers, snappers and emperors are particularly abundant. Tawny Nurse <i>Nebrius ferrugineus</i> , Grey Reef <i>Carcharhinus amblyrhynchos</i> , White-tip Reef <i>Triaenodon obesus</i> , Lemon Sharks <i>Negaprion brevirostris</i> and stingrays are common in the lagoon, and Reef Manta Rays <i>Mobula alfredi</i> occur. Seagrass beds are regionally important foraging grounds for Green turtles <i>Chelonia mydas</i> and Hawksbill Turtles <i>Eretmochelys imbricate</i> . The seaward wall features a complex of tunnels and overhangs supporting high numbers of lobsters <i>Panulirus spp.</i> , schools of emperors, snappers and sweetlips and ideal habitat for the now rare Giant Grouper <i>Epinephelus lanceolatus</i> . The outer reef and deeper waters beyond support larger predators such as Dogtooth Tuna <i>Gymnosarda unicolor</i> and Giant Trevally <i>Caranx ignobilis</i> and cetaceans including Bottlenose <i>Tursiops sp.</i> and Spinner Dolphins <i>Stenella longirostris</i> and Humpback Whales <i>Megaptera novaeangliae</i> . Great-crested Tern <i>Thalasseus bergii</i> numbers exceed the Important Bird and Biodiversity Area (IBA) criteria.	
Biodiversity Representation:	Contains 35 biodiversity features. Contains 11 of 44 habitat conservation features and 24 of 38 species conservation features: 6 birds, 11 cetaceans, 2 deep water, 6 shallow water, 1 BirdLife IBA, seagrasses, turtle nesting and foraging habitats, 1 WIOMER site. 97% overlap with all cetaceans. WIOMER covers 100%. Seagrasses cover 21%. Continental slope covers 12%. Desroches is disjunct from the Amirantes Banks, surrounded by steep gradients in slope and depth. It is the only location in Seychelles where atoll submerged lagoon and atoll submerged rim are found.	
Economic Description:	The waters surrounding Desroches are important for sport fishing including fly-fishing for Bonefish <i>Albula vulpes</i> in the lagoon and blue water sport fishing for pelagic species. Diving and snorkelling are popular. Demersal fishing vessels licensed by Seychelles Fishing Authority (SFA), fish on the atoll reef and sea-cucumber fishing occurs here. Subsistence fishing is undertaken by IDC for island staff consumption. The subsistence catch is monitored and recorded by ICS. Charter vessels and private yachts visit occasionally by arrangement with IDC.	
Possible New Future Uses	Desroches was surveyed by SFA for mariculture opportunities in 2015, and a land-based pearl hatchery at Desroches Island and sea cucumber ranching within the lagoon were considered by SFA to be feasible.	
Comments:	GOS-UNDP-GEF Outer Islands Project has held consultations for the OIP areas and received high support for this proposal. The SMSP stakeholders have also recommended high support for this proposal.	

Poivre Atoll (Marine) AONB

Name: <i>Poivre Atoll (Marine) AONB</i>		Size: 56 km ²
Milestone: 3	Zone: 2	Percent of EEZ: 0.004%
Primary Objective:	To protect Poivre Atoll's lagoon, reef and surrounding waters for the protection and conservation of marine habitats and biodiversity and to provide economic opportunities for their sustainable use.	
Geographical Description:	Poivre is located approximately 35 km south of D'Arros and St. Joseph Atolls, on the Amirantes Banks. The area boundary was developed by the GOS-UNDP-GEF Outer Island Project, and this area is a 6.5 x 8.8 km rectangle encompassing Poivre Atoll, extending not less than 1 km from the outer edge of the reef flat at the closest point and including all areas below the MHWL.	
Existing Marine Designations:	Foreign Fishing Prohibited Areas #5 (Amirantes): 17,285 km ²	
Ecological Description:	There is no real lagoon at Poivre, but rather a unique and complex plain of drying reef with channels, pools, banks and flats. Extensive seagrass beds on the reef flats, consisting primarily of <i>Thalassodendron ciliatum</i> and <i>Thalassia hemprichii</i> with small amounts of <i>Cymodocea rotundata</i> , are an important foraging ground for Green <i>Chelonia mydas</i> and Hawksbill <i>Eretmochelys imbricate</i> turtles and shallow-water fish species. The reef flats support high densities of molluscs and crustaceans. Mudskippers are numerous around the mangrove margins and Blue Mangrove Crabs <i>Scylla serrata</i> are found in the shallow waters of the Ile du Sud inlets. The richness and diversity of marine life is high, with high densities of shallow-water fish species such as bonefish <i>Albula Vulpes</i> , trevallies, snappers, emperors, Milkfish <i>Chanos chanos</i> , mullet and triggerfish <i>Balistoides</i> spp using the reef flats and larger species populating the outer reef. Sea cucumbers are very numerous in the shallows. Stingrays of several species are exceptionally numerous in the shallows and Reef Manta Rays <i>Mobula alfredi</i> occur outside the reef. Risso's Dolphins <i>Grampus griseus</i> are sighted regularly and other cetaceans such as Spinner Dolphin <i>Stenella longirostris</i> and Short-finned Pilot Whale <i>Globicephala macrorhynchus</i> occasionally. Live hard coral cover at Poivre was estimated by ICS at 38% in 2017 (<i>Porites</i> , <i>Acropora</i> and <i>Pocillopora</i>).	
Summary of Biodiversity Representation:	Contains 37 biodiversity features. Contains 13 of 44 habitat conservation features and 24 of 38 species conservation features: 6 birds, 11 cetaceans, 1 deep water, 7 shallow water, 1 BirdLife IBA, seagrasses, turtle nesting and foraging habitats, 1 WIOMER site. 80% overlap with all cetaceans. WIOMER covers 100%. Seagrasses cover 63%. A small amount of mangrove habitat is found in this Area. Representation of shallow platform reef, infilled rim feature (21%).	
Economic Description:	Uses of the site include tourism and fisheries. Tourism boat charters and private yachts bring visitors to the waters around Poivre for the high-profile catch and release fly-fishery on the Poivre reef flats and to dive, snorkel, wildlife watch. Commercial demersal fishing vessels, mainly from Mahé and Praslin and licensed by SFA fish around the atoll. During a 2015 SFA survey of the Outer Islands, the commercially valuable Sandfish <i>Holothuria scabra</i> was found at Poivre. Subsistence fishing is undertaken by IDC for island staff consumption.	
Possible New Future Uses	A small ecotourism development is planned for Poivre Island by IDC, which will increase the ecotourism value of the site.	
Comments:	GOS-UNDP-GEF Outer Islands Project has held consultations for the OIP areas and received high support for this proposal. The SMSP stakeholders have also recommended high support for this proposal.	

Alphonse Group (Marine) AONB

Name: Alphonse Group (Marine) AONB		Size: 215 km ²
Milestone: 3	Zone: 2	Percent of EEZ: 0.02 %
Primary Objective:	To protect the Alphonse and neighbouring St François atolls' lagoons', reefs' and surrounding waters for the protection and conservation of marine habitats and biodiversity and to provide economic opportunities for their sustainable use.	
Geographical Description:	This area is located primarily on the shallow water shelf (<200m) of the Alphonse Group. The boundary was defined by the GOS-UNDP-GEF Outer Islands Project and is a 21.9 x 9.5 km rectangle encompassing both Alphonse and St François Atolls. It includes all areas below the mean-high-water-mark (MHW) to the area boundary which is not less than 1 km from the reef edge at the closest point.	
Existing Marine Designations:	Foreign Fishing Prohibited Areas #5 (Alphonse): 2,799 km ²	
Ecological Description:	The marine habitats of Alphonse and St François atolls harbour a rich biodiversity. The large, reef-rimmed lagoons harbour extensive areas of coral reef flats and seagrass beds and St François holds substantial fringing mangrove forest and sand/mudflats. Both lagoons support high levels of invertebrates, fish and turtles; sea cucumbers are particularly numerous at St. François and giant clams <i>Tridacna spp</i> are abundant in Alphonse lagoon. Significant numbers of Green <i>Chelonia mydas</i> and Hawksbill <i>Eretmochelys imbricata</i> Turtles live and forage in the lagoons of both atolls and St François is believed to be one of the most important foraging areas for Green Turtles in the western Indian Ocean. The area is an important feeding ground for significant numbers of five seabird and shorebird species, some of which exceed the BirdLife International criteria for designation as an Important Bird and Biodiversity Area (IBA). Coral reef fish families are well-represented in both lagoons and on the outer reef slopes. Groupers, snappers and emperors are particularly abundant. Spawning aggregation sites of the grouper Vyey Masata <i>Epinephelus polyphekadion</i> have been situated off Bijoutier and St François and of the Giant Triggerfish <i>Balistoides viridescens</i> at Alphonse main channel. Larger sharks and Reef Manta Rays <i>Mobula alfredi</i> are present in moderate numbers. Spinner Dolphins <i>Stenella longirostris</i> are regularly recorded, and Humpback Whales <i>Megaptera novaeangliae</i> occasionally.	
Summary of Biodiversity Representation:	Contains 34 biodiversity features. Contains 10 of 44 habitat conservation features and 24 of 38 species conservation features: 6 birds, 10 cetaceans, 1 deep water, 4 shallow water, 1 BirdLife IBA seagrasses, turtle nesting and foraging habitats, 1 WIOMER site. 94% overlap with all cetaceans except orca. WIOMER covers 100%. Seagrasses cover 20%. Frigatebird foraging covers 100%. A small amount of mangrove habitat is found here. Upwelling may provide thermal refuge during warming events.	
Economic Uses:	Marine uses of the site are small scale ecotourism (620 visitors in 2016-2017) centred on the internationally renowned marine fly fishery in St François lagoon, but also diving, snorkelling and wildlife watching. Cruise-ships (8 of varying size in 2016), charter vessels (10-15 visits per year) and private yachts visit by arrangement with IDC. Commercial demersal fishing for groupers, emperors and snappers and for sea cucumbers on and around the outer reefs of both atolls is undertaken by vessels under licence from SFA. Subsistence fishing is undertaken to feed Alphonse Island residents. Cruise-ships, charter vessels and private yachts visit occasionally by arrangement with IDC	
Possible New Future Uses	None identified in 2019.	
Comments:	GOS-UNDP-GEF Outer Islands Project has held consultations for the OIP areas and received high support for this proposal. The SMSP stakeholders have also recommended high support for this proposal.	

Farquhar Atoll (Marine) AONB

Name: <i>Farquhar Atoll (Marine) AONB</i>		Size: 415 km ²
Milestone: 3	Zone: 2	Percent of EEZ: 0.03 %
Primary Objective:	To protect Farquhar Atoll's lagoons, reefs and surrounding waters for the protection and conservation of marine habitats and biodiversity and to provide economic opportunities for their sustainable use.	
Geographical Description:	This area is a 20 x 21 km rectangle encompassing Farquhar Atoll, extending not less than 1 km from the outer edge of the reef at the closest point and including all areas below the MHWM. The boundary includes Farquhar Atoll and Sand Cay, and is approximately 90 km south of Providence, Cerf, and St Pierre.	
Existing Marine Designations:	Foreign Fishing Prohibited Areas #7 (Providence, Farquhar and St. Pierre, and Wizard Reef) 14,897 km ² .	
Ecological Description:	Farquhar lagoon is considered one of the most topographically complex in the world with over 16,000 ha of reef. At low tide, the reef flats form a network of shallow pools, channels, sandbars and banks. The lagoon is an important foraging area for Black-naped Terns (<i>Sterna sumatrana</i>), Farquhar having the largest known colony (c.140 pairs) in the African region. The atoll is recognised as an Important Bird and Biodiversity Area (IBA) (BirdLife International, 2019). Extensive seagrass beds and shallow-water coral stands support high densities of crustaceans, molluscs, other invertebrates and fish. The slow-growing encrusting corals (<i>Porites</i> and <i>Montipora</i>) predominate and are considered relatively resilient to bleaching events. Pelagic fish species include flying fish, tuna and billfish. Larger sharks, marine mammals and foraging seabirds are found in offshore waters. The main channel and west of the atoll are spawning aggregation sites for three species of grouper and two species of triggerfish. The size and number of groupers, snappers and trevallies are among the highest in the Indian Ocean and the numbers of Napoleon Wrasse <i>Cheilinus undulatus</i> (Russell 2004) and Bumphead Parrotfish <i>Bolbometopon muricatum</i> , both IUCN threatened species (Chan <i>et al.</i> 2012) are exceptional; the Napoleon Wrasse density may be the highest in the world. Reef Manta Rays <i>Mobula alfredi</i> and stingrays are present in good numbers and Spinner Dolphins <i>Stenella longirostris</i> are regularly seen.	
Summary of Biodiversity Representation:	Contains 38 biodiversity features. Contains 11 of 44 habitat conservation features and 27 of 38 species conservation features: 7 birds, 13 cetaceans, 2 deep water, 4 shallow water, 1 BirdLife IBA, seagrasses, turtle nesting and foraging habitats, 1 WIOMER site. 92% overlap with all cetaceans. WIOMER covers 100%. Seagrasses cover 25%. Atoll sea-level lagoon covers 25%. Coral reef structures cover 52%.	
Economic Description:	Farquhar is an internationally recognised saltwater fly-fishing location with up to 10 fly-fishing guests per week September-May. Species targeted in the Farquhar reef flats include Bonefish <i>Albula vulpes</i> , Giant Trevally <i>Caranx ignobilis</i> , Milkfish <i>Chanos chanos</i> , triggerfish <i>Balistoides</i> spp. and Permit <i>Trachinotus blochii</i> . Diving, snorkelling and wildlife watching are also popular activities. Cruise-ships, charter vessels and private yachts visit occasionally by arrangement with IDC. Subsistence fishing for island residents is carried out by IDC. Commercial demersal fishing vessels licensed by SFA fish for snapper, emperors, groupers and sea cucumbers around the atoll reefs. Survey vessels would not operate within 5 km of the atoll's coast; the proposed MPA boundary is 7.8 km from reef at its furthest point. Radar station in repair following damage from cyclone.	
Possible New Future Uses	Limited seismic surveys in this area; interest in future surveys or petroleum exploration. This is an Area of Interest for PetroSeychelles. SFA may require access for removal of 6-8 brood groupers per season from spawning aggregations for private-enterprise fin-fish farming in the Inner Islands.	
Comments:	GOS-UNDP-GEF Outer Islands Project has held consultations for the OIP areas and received high support for this proposal. The SMSP stakeholders have also recommended high support for this proposal.	

Farquhar Archipelago (Marine) AONB

Name: <i>Farquhar Archipelago (Marine) AONB</i>		Size: 14,482 km ²
Milestone: 3	Zone: 2	Percent of EEZ: 1.07 %
Primary Objective:	To expand marine protection for representative habitats and species in the Farquhar Group.	
Geographical Description:	This area corresponds to the Providence, Farquhar and St. Pierre, and Wizard Reef Foreign Fishing Prohibited Area (Fisheries Act). This area does not include the Farquhar OIP boundary.	
Existing Marine Designations:	Foreign Fishing Prohibited Areas #7 (Providence, Farquhar and St. Pierre, and Wizard Reef): 14,897 km ²	
Ecological Description:	This area includes the waters between the atolls in the Farquhar Group. This area contains 6 shallow water habitat types and contains atolls well known for healthy populations of lagoon and reef fish. In deep waters, it includes canyons, seamount and mountains; complex benthic topography in areas surrounding Farquhar and includes Bulldog Bank, Wizard Reef, and part of the Anton Bruun Rise. A westward, equatorial current flows along the bottom portion of the Seychelles EEZ.	
Summary of Biodiversity Representation:	Contains 47 biodiversity features. Contains 19 of 44 habitat conservation features and 28 of 38 species conservation features: 8 birds, 13 cetaceans, 9 deep water, 6 shallow water, 1 BirdLife Important Bird and Biodiversity Area (IBA), seagrasses, turtle nesting and foraging habitats, 1 WIOMER site. 100% overlap with all cetaceans except Sei whale at 52% and Risso's dolphin at 99%. WIOMER covers 90%. Seagrasses cover 2%. Frigatebird foraging covers 8%. Continental slope covers 78%, Canyons cover 18%, abyssal depths 12%. The area contains 42% of atoll sea level rim and 23% of atoll sea-level lagoon in Seychelles is found here.	
Economic description:	Artisanal fishing, sport-fishing, fly-fishing, petroleum exploration and development, tourism (yacht charters, diving). May be an important area as "safe harbour" for artisanal fishing in Outer Islands. Tourism at Farquhar, Providence and Cerf islands. Tourism accommodation and radar station on Farquhar was destroyed by cyclone and rebuilt.	
Possible New Future Uses	Limited seismic surveys in this area and there is some interest in future surveys or exploration. Future geological scientific research proposed by PetroSeychelles for regional seismic surveys with Madagascar.	
Comments:	Very high support for Farquhar in a Zone 2 to support both conservation and sustainable uses in this area.	

Cosmoledo and Astove Archipelago (Marine) AONB

Name: <i>Cosmoledo and Astove Archipelago (Marine) AONB</i>		Size: 5,321 km ²
Milestone: 3	Zone: 2	Percent of EEZ: 0.39 %
Primary Objective:	To expand marine protection for representative habitats and species in the pelagic waters around Cosmoledo and Astove Islands.	
Geographical Description:	This area boundary corresponds to the Cosmoledo and Astove Foreign Fishing Prohibited Area #8 (Fisheries Act). The area is approximately 400 km west of Farquhar.	
Existing Marine Designations:	Foreign Fishing Prohibited Area #8 (Cosmoledo and Astove Islands): 5,321 km ² Radar station on Astove.	
Ecological Description:	This area represents pelagic waters and shallow waters surrounding the Cosmoledo and Astove atolls. This area contains 2 shallow water habitat types. In deep waters, it includes canyons, continental slope, and abyssal plains and hills. Overlaps with WIOMER and BirdLife Important Bird Areas. A westward, equatorial current flows along the bottom portion of the Seychelles EEZ. The reefs of Astove are the most spectacular in Seychelles (IDC), and have been named “the most spectacular in the world” by underwater photographer Stan Waterman. Green turtles breed on Astove. Cosmoledo is the largest seabird colony in Seychelles (Skerrett).	
Summary of Biodiversity Representation:	Contains 40 biodiversity features. Contains 15 of 44 habitat conservation features and 25 of 38 species conservation features: 5 birds, 13 cetaceans, 6 deep water, 4 shallow water, 1 BirdLife IBA, turtle nesting and foraging habitats, 1 WIOMER site. 100% overlap with all cetaceans except Orca at 95%. WIOMER covers 100%. Canyons cover 7%, continental slope covers 92% and abyssal features cover 22%. Identified as a blue whale breeding area and as a historical humpback whale breeding area. This is a grouper spawning area. A small amount of mangrove habitat is found here.	
Economic Description:	Minimal artisanal fishing. Sport-fishing, tourism (yacht charters, diving). High value destination for sport-fishing. Independent tour operators and IDC view this area as high value. May be an important area as “safe harbour” for artisanal fishing in Outer Islands. Radar stations to monitor vessel traffic are on Astove.	
Possible New Future Uses	Tourism development on Cosmoledo and Astove Atolls in the IDC Development Plan (2018-2023).	
Comments:	Waters surrounding Astove were explored during the Nekton Expedition, April 2019. New deep water coral habitats were located and submersible transects indicated very high biodiversity compared to other islands or atolls in the EEZ. Reports of illegal fishing have been noted surrounding Astove, especially on the eastern side along the drop-off.	

5 Financial, regulatory and legal implications of the SMSP

Financial implications

1. Costing and financing for implementation of the 30% marine protection areas of the marine spatial plan was developed by a GoS-UNDP-GEF PA Finance project, and supported by the MEECC, SMSP and SeyCCAT. Three future management options were explored and associated financing options.
2. A consultancy completed a socio-economic impact assessment of the new marine protection areas on the industrial tuna fishery and Seychelles' economy. This, and other MSP spatial analyses, informed the recent renegotiations of the Seychelles Sustainable Fisheries Partnership Agreement.

Legal implications

3. Legislation is needed to gazette SMSP Zone 2 areas in a “sustainable use area” category of “protected areas”, for a conservation and sustainable uses objective.
4. With legislation not ready for a “sustainable use area” category, MSP Zone 2 areas would be gazetted through the National Parks and Nature Conservancy Act (NPNCA) under the Areas of Outstanding Natural Beauty (AONB) category and then re-designated once the new legislation is enacted. Stakeholders are concerned about the risks associated with gazetting Zone 2 areas with a “protected area” category not designed for a “sustainable use area” objective, meaning both conservation and sustainable uses.

Regulatory implications

5. For implementation of the MSP, the concept of an independent Ocean Authority is being explored as per agreement by Cabinet in July 2018 and a final report that was submitted in December 2018.
6. A new MSP Policy was drafted in 2017-2018 and will be finalized in 2020.
7. Draft Allowable Activity tables and management considerations for all areas have been developed through stakeholder consultations and public workshops. With assistance from SWIOFish3, management plans will be developed, including alignment with regulations.
8. Monitoring, control and surveillance (MCS) is being explored with Regional Coordination Operations Centre (RCOC), Seychelles Coast Guard, and National Information Sharing Coordination Centre (NISCC).

6 Summary of on-going discussions

This is a high-level summary of on-going discussions for development of management plans for the proposed areas, and implementation of the MSP and Outer Islands Project.

- Existing agreements will be in place through 2020 so as to phase in increased marine protection and sustainable uses. There are several existing agreements in Seychelles and these are taken into account in the zoning design.
- In Milestone 1 and 2, the MSP Executive Committee took a decision to use the NPNCA and new legislation is needed for a biodiversity and sustainable use category that fits the MSP Zone 2 category for medium protection and sustainable uses (Annex V); the NPNCA is not the intended permanent designation. Legislation is needed for a “sustainable use area” category for “protected areas” with the objective for conservation and sustainable uses.
- Stakeholders are aware and support the use, if necessary to meet the debt swap milestones, of the NPNCA protected area category “Area of Outstanding Natural Beauty” (AONB) for Zone 2 areas until the new Nature Reserves and Conservancy Bill is approved with a “sustainable use area” category for biodiversity conservation and sustainable uses. The designation and gazette of any area using the AONB category will mean re-designation once the new Bill is approved.
- Concerns have been noted for the use of the NPNCA for waters surrounding zone 2, sustainable use areas where there are ongoing activities which should be allowable as per the management considerations for these areas. Concerns also for the uncertainty related to future regulations for future uses in these areas if NPNCA is used.
- Catch and release fishing is allowable in SMSP Zone 2 category (i.e., a sustainable use area) however more data are needed for all species that are affected by catch and release in order to ascertain if the activity is sustainable.
- Island Conservation Society Seychelles (ICS) and Islands Development Company (IDC) have developed a model for financing that is already in place on Desroches and Alphonse Atolls. Revenue is generated from ecotourism and placed in an endowment fund that is managed by a Foundation. The endowment fund finances conservation management of the site. It is envisaged that all four GOS-UNDP-GEF Outer Island Project sites (Desroches, Poivre, Alphonse, Farquhar) will raise funds for conservation management, monitoring and enforcement using a similar model and analyses indicates there is likely to be a shortfall and additional funding sources needed.
- Fisheries management to align with zone area objectives are being discussed including management of FADs, sport fisheries, artisanal fisheries, supply vessels and transshipment. Management improvements include electronic monitoring at sea and at ports and assessing stocks or fisheries with limited or poor data.
- Confirmation from Seychelles Fishing Authority that all industrial fishing vessels are excluded from the Foreign Fishing Vessels Prohibited Areas, not just “foreign fishing vessels” (proposed amendment of Fisheries Act by MFAG and SFA).
- Receiving the official coordinates for the Territorial Sea boundaries to finalise Seychelles Marine Spatial Plan by Dec 2020.
- Finalisation of governance for the implementation of the MSP (e.g., a new Ocean Authority).

- General management considerations, area-based management considerations and allowable activities tables are being drafted for all the areas designated during the MSP process. The draft allowable activities tables for Sustainable Use Areas have been developed using extensive consultations with stakeholders and provide the management direction to government and marine sectors about what is allowable in this designation whilst also making provision for site specific conditions.
- For the areas proposed by GoS-UNDP-GEF Outer Islands Project, management plans have been produced using a consultative stakeholder participation and review process during which management regulations (allowable and prohibited activities and conditions) were drafted based on the draft allowable activities for the SMSP Sustainable use Areas (Zone 2). The allowable activities will be finalised through further stakeholder consultation through 2020 and implemented in 2021. The list of meetings is available in Annexes.

7 Map of all proposed areas in nomination file

All areas proposed for marine protection in Milestone 3.

See Part C for coordinates and Part D for maps.

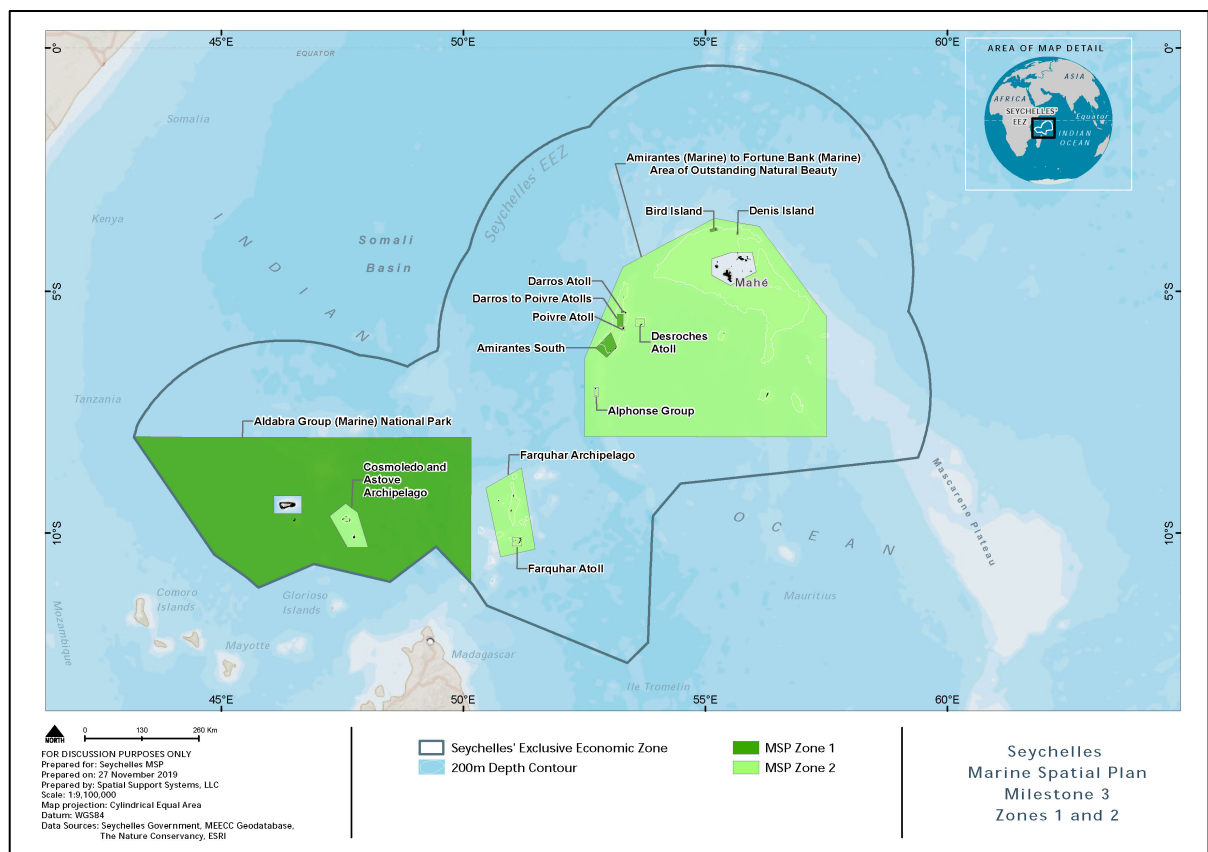


Figure 3. Milestone 3 areas proposed for marine biodiversity protection, Zones 1 and 2.

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