



Capacity Needs Assessment and Capacity Development Plan for Seychelles MSP

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Final Report



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Abbreviations and Acronyms

BNA – Blue Nature Alliance
CBD – Convention on Biological Diversity
CDP – Capacity Development Plan
CSR – Corporate Social Responsibility
EBA – Ecosystem-Based Approach
EEZ – Exclusive Economic Zone
GEF – Global Environment Facility
GIF – Green Island Foundation
GIS – Geographic Information System
GMDSS – Global Maritime Distress and Safety System
GOS – Government of Seychelles
ICS – Island Conservation Society
KPI – Key Performance Indicators
MACCE – Ministry of Agriculture, Climate Change, and Environment
MCSS – Marine Conservation Society Seychelles
MCS&E – Monitoring, Control, Surveillance, and Enforcement
MPA – Marine Protected Area
MoFBE – Ministry of Fisheries and Blue Economy
MoU – Memorandum of Understanding
MSP – Marine Spatial Plan
NISCC – National Information Sharing and Coordination Centre
R2R – Ridge to Reef
SCG – Seychelles Coast Guard
SEYCCAT – Seychelles Conservation and Climate Adaptation Trust
SFA – Seychelles Fishing Authority
SIDS – Small Island Developing States
SIF – Seychelles Island Foundation
SMSA – Seychelles Maritime Safety Administration
SMSP – Seychelles Marine Spatial Plan
SOA – Seychelles Ocean Authority
SOP – Standard Operating Procedure
SPGA – Seychelles Parks and Gardens Authority
TNC – The Nature Conservancy
ToT – Training of Trainers
UNDP – United Nations Development Programme
UNITAR – United Nations Institute for Training and Research
VMS – Vessel Monitoring System
WCPA – World Commission on Protected Areas

Executive Summary

The Seychelles Marine Spatial Plan (SMSP) is a landmark initiative aimed at conserving biodiversity, promoting sustainable marine resource use, and building climate resilience across Seychelles' Exclusive Economic Zone (EEZ). **This document provides a comprehensive overview of the Capacity Needs Assessment and Capacity-Building Plan (CBP)**, outlining the gaps, challenges, and solutions

needed to support the SMSP's implementation. These findings are based on stakeholder interviews, document reviews, and a collaborative workshop, ensuring a well-rounded and inclusive approach.

Systemic, Institutional, and Individual Levels

In assessing the SMSP's capacity needs, three levels were considered. Systemic refers to governance structures, interagency coordination, and legal and policy frameworks. Institutional covers organizational resources, including staff, infrastructure, and institutional mandates. Individual focuses on the technical skills needed, such as GIS, enforcement, data analysis, and stakeholder engagement.

Key Gaps and Proposed Solutions

Findings indicate that governance frameworks need additional clarity to ensure consistent data sharing, policy alignment, and inter-agency coordination. Many organizations, including the MSP Unit (future Seychelles Ocean Authority, SOA), Seychelles Parks and Gardens Authority (SPGA), and Seychelles Coast Guard (SCG), experience significant staffing and training deficits, particularly in technical enforcement and monitoring. High staff turnover and inadequate collaboration further weaken overall capacity. The report emphasizes addressing staffing challenges and retention issues by advocating for increased recurrent budgets and long-term workforce development strategies, as highlighted by Burt et al. (2021). This includes prioritizing structured recruitment processes, retention incentives, and professional development pathways. In response to these challenges, the CBP recommends strengthening governance through the formal establishment of a National Maritime Committee, building institutional capacity via resource mobilization and enhanced inter-agency collaboration, and developing individual skills in areas such as GIS, hydrography, conflict resolution, and stakeholder communications.

Integration of Existing Programs and Outlook

The CBP integrates existing efforts under the GOS-GEF-UNDP Blue Economy Project, SWIOFish3, and UNESCO programs, aligning these with actionable strategies for SMSP implementation. Technologies such as SMART tools and professional certification programs (e.g., WIO-COMPAS) are prioritized to enhance enforcement, monitoring, and knowledge exchange. Additionally, MACCE's critical role in leading SMSP components is underscored, with recommendations for capacity-building programs specifically tailored to address its needs. Short-, medium-, and long-term priorities are clearly identified, along with approximate costs, to ensure a practical roadmap toward sustained success for SMSP and Seychelles' broader marine conservation objectives. By addressing systemic barriers, institutional challenges, and individual skill gaps comprehensively, the CBP aims to create a resilient and inclusive foundation for marine spatial planning in Seychelles.



1.0 Background and context

The **Seychelles Marine Spatial Plan (SMSP)** is a pioneering effort to protect 30% of Seychelles' Exclusive Economic Zone (EEZ) while balancing ecological preservation, sustainable resource use, and climate resilience.

It pursues **three objectives**—biodiversity conservation, climate change adaptation, and support for the Blue Economy Roadmap—reflecting the country's commitment to both national priorities and global marine sustainability goals.

Key outputs of the SMSP include a marine spatial plan that integrates ecological, economic, and social considerations through zoning, supported by an MSP Policy that provides governance guidance, and a government-led mechanism that strengthens coordination and compliance for legal enforceability.

Seychelles currently has 13 Marine Protection Areas (as distinct from Marine Protected Areas) designated under the SMSP.

These are organized under two principal zones:

- **Zone 1** (High Biodiversity Protection Areas) limits extractive activities in critical ecosystems,
- **Zone 2** (Medium Biodiversity Protection and Sustainable Use Areas) allows selective, sustainable uses such as fishing, tourism, or renewable energy.

Older MPAs, established before the SMSP, remain under the National Parks and Conservancy (NRC) Act. These MPAs are in the process of being reclassified in accordance with the Nature Reserves and Conservancy (Further Criteria for Classification of Protected Areas) Regulations, 2023, as outlined in the NRCA 2022. Further direction from MACCE will guide how these areas align with SMSP standards and objectives.

This Capacity Needs Assessment **examines three levels of potential barriers** to SMSP implementation.

1. At the **systemic level**, it considers governance frameworks, legal structures, and interagency coordination.
2. At the **institutional level**, it looks at organizations' staffing, infrastructure, and operational capacity for marine management and enforcement.
3. At the **individual level**, it focuses on the technical skills, professional expertise, and training needed to ensure effective monitoring, compliance, and community engagement.

Implementing the SMSP involves establishing governance structures, crafting enabling regulations, and creating management plans for the 13 Marine Protection Areas. Some of these areas were designated under the SMSP, while others arose from earlier, separate legal frameworks. Because of the vast ocean territory involved, innovative enforcement and multi-party monitoring approaches are essential to address the challenges posed by large-scale marine protection.

The **Strategic Management Framework (SMF)** provides clarity on responsibilities across Management Authorities, defines statutory obligations, and facilitates cross-sector coordination. However, it is important to note that the SMF has not been finalized, as it is pending some critical work. Despite this, three aspects of SMF implementation are particularly notable.

1. First, the **Seychelles Ocean Authority (SOA)**—envisioned to formalize the MSP Unit's governance role—remains pending full government approval.
2. Second, **MACCE** has already completed three management plans for large-scale MPAs, funded by SWIOFish3 and developed with technical support from the consultancy firm C2O.
3. Third, older sites under the **NRC Act** must be integrated into the broader scheme, ensuring comprehensive coverage of marine areas under a unified management framework.

By uniting these elements, the SMSP aims to achieve sustainable management of the country's marine resources, positioning Seychelles as an international leader in responsible ocean governance.



2.0 Methodology

The following methodology was applied to conduct the capacity needs assessment.

2.1. Review of documentation relating and insights from past assessments

This capacity needs assessment began with a thorough review of key documents. The Draft Strategic Management Framework, the 2024 Zoning Design and Allowable Activities Tables, and various SMSP policy drafts provided an overview of the Plan’s structure and proposed modes of implementation.

Earlier capacity assessments, including the 2014 GOS-UNDP-GEF study, the Ridge to Reef (R2R) Project (2018–2022), and the GEF-7 Blue Economy Project, revealed persistent legal and policy gaps, high staff turnover, and insufficient financing structures for marine conservation.

Three management plans focusing on specific **Zone 2 areas** (Amirantes to Fortune Bank, Cosmoledo and Astove Archipelago, and Farquhar Archipelago), were similarly examined to understand governance strategies and identify ongoing capacity needs. These plans were developed by the consultancy firm C20 with oversight and coordination provided by MACCE. The plans echo themes found in broader documents like the Management Effectiveness Tracking Tool (METT) reports for older MPAs. Across nearly every source, the same challenges emerged: limited enforcement resources, gaps in technical expertise, and a pressing need to strengthen coordination among agencies.

Additionally, **the Burt et al. (2021) study** on barriers to conservation in the Western Indian Ocean provides a broader context for understanding these challenges. The study identifies limited capacity (23.5%), lack of government coordination (21.6%), and resource constraints (21.6%) as the most frequently cited barriers, all of which resonate strongly with findings from this assessment. It also highlights organizational-level barriers (55%) as the predominant challenge, followed by national

(24%) and site-level (21%) issues, emphasizing the importance of targeted capacity-building efforts at both institutional and systemic levels.

The **GOS-GEF-UNDP Blue Economy Project**, formally known as Prioritising Biodiversity Conservation and Nature-based Solutions as Pillars of Seychelles' Blue Economy, also informed this review. This ongoing initiative is primarily concerned with financing aspects of SMSP implementation. A capacity needs assessment in 2019 pointed to shortcomings in systems, personnel, equipment, and financial resources, and it highlighted data and knowledge gaps affecting a newly expanded MPA system. **In response, the Blue Economy Project's Components 1 and 2** were designed to build capacity in ocean governance, facilitate site-specific management plans (from High Biodiversity Protection Zones to Multiple Use Zones), mobilize resources, and strengthen public outreach. These aims closely align with the SMSP's central objectives.

Insights were further complemented by the **Blue Nature Alliance**, which has worked on expanding marine protection in Seychelles and worldwide. This partnership emphasizes institutional strengthening for MSP implementation, capacity-building for monitoring and enforcement, and stakeholder collaboration through knowledge-sharing, particularly peer-to-peer learning.

Although different in scope, both the Blue Economy Project and Blue Nature Alliance address overlapping areas of governance, enforcement, and funding needs, making them integral to a more holistic understanding of the SMSP's context.

Management Effectiveness Tracking Tool (METT) assessments helped clarify systemic, institutional, and individual-level vulnerabilities. Conducted from 2018 to 2022 for various pre-SMSP marine protected areas (including Cousin Island Special Reserve, Curieuse Marine National Park, and Aldabra Special Reserve), these evaluations underscored missing resources for consistent monitoring, weak coordination between management partners, and insufficient technical expertise among staff. Their results have steered the SMSP to prioritize certain actions, such as facilitating inter-agency coordination or designing more robust training in data analysis and enforcement. Burt et al. (2021) supports this emphasis on increased recurrent budgets, strategic recruitment, and retention policies, noting that these are critical for addressing persistent staffing challenges.

Additional management plans for Zone 2 Sustainable Use Areas were prepared by MACCE and C2O, funded by Oceans5 and SWIOFish3. These address governance and capacity concerns in Amirantes to Fortune Bank, Cosmoledo and Astove, and Farquhar. Although draft plans for D'Arros and St. Joseph Atolls remain unreleased, the Aldabra Special Reserve (an older site not included under the SMSP) has an updated management plan focusing on biosecurity, ecosystem monitoring, and rigorous enforcement. The discussions within these documents frequently note underdeveloped surveillance capacity, unclear collaboration frameworks for remote MPAs, and persistent difficulties with data collection, ecological monitoring, and long-term funding.

These findings do not stand in isolation. **Various historical assessments**, including the 2014 MPA Capacity Assessment (GOS-UNDP-GEF), the 2018–2022 GEF6 Reef-to-Ridge (R2R) Project, Aldabra UNESCO World Heritage Site Evaluations, and the 2021 Protected Areas Finance (PAF) Project, each contributed specialized insights on financing, stakeholder engagement, and sustainable project design.

Although each project addressed different dimensions of marine conservation, their results intersect on critical issues: insufficient legislative tools, outdated policy frameworks, difficulty coordinating

across governmental and non-governmental bodies, and high turnover that undermines training investments. As highlighted by Burt et al. (2021), **these systemic and institutional barriers require innovative, multi-dimensional approaches to capacity-building that extend beyond traditional training programs.** As a whole, these reviews shaped how this methodology approached identifying the systemic, institutional, and individual capacity gaps relevant to the SMSP.

GOS-GEF-UNDP Blue Economy Project and Blue Nature Alliance

During the document review, special consideration was given to two ongoing initiatives with direct relevance to SMSP implementation.

The **GOS-GEF-UNDP Blue Economy Project**, for instance, has been instrumental in capacity-building for ocean governance, inter-agency alignment, resource mobilization, and community outreach. Its focus on closing financial gaps has parallels in the **Blue Nature Alliance**, a global endeavour that has collaborated with Seychellois authorities to reinforce governance frameworks and monitoring capability. Both programs **encourage partnerships and peer learning**, which serve as important components of the SMSP's broader strategy for sustainable marine resource management.

METT and Other MPA Assessments

The **Management Effectiveness Tracking Tool (METT)** has been applied to several of Seychelles' older MPAs, from Cousin Island to Saint Anne Marine National Park. Dates vary, but many were completed between 2018 and 2022 under various capacity-building projects. These assessments emphasized the **operational shortfalls** that hinder proactive and adaptive management, such as outdated enforcement protocols, insufficient staffing, and poor synergy among agencies overseeing adjacent protected areas. They have directed attention to the **need for restructured governance, enhanced technical training, and ongoing evaluations** of resource allocation.

Evaluations of **Aldabra Special Reserve**, an area managed by the Seychelles Islands Foundation (SIF) and recognized as a UNESCO World Heritage Site, offer additional perspective. Regular reviews highlight hurdles in biosecurity, surveillance, and robust ecological monitoring, echoing concerns about sustaining adequate staff capacity in remote, high-biodiversity sites.

Existing Management Plans and Key Stakeholders

Beyond the three management plans for **Zone 2** Sustainable Use Areas mentioned earlier, other plans developed by organizations like the Island Conservation Society (ICS) and the Islands Development Company (IDC) demonstrate the significance of local partnerships.

ICS-led efforts at Farquhar, Alphonse, and Desroches underscore **the importance of regular monitoring, research, and community engagement** in remote island settings. IDC, in turn, plays a logistical and operational role, ensuring that conservation objectives align with the realities of infrastructure maintenance. Though these collaborations have provided valuable lessons (such as how to handle supply chains or develop targeted monitoring protocols) they continue to face challenges in consistent staffing, coordination, and securing sustainable financial support.

The **SMSP must therefore integrate these external but related efforts to avoid duplicating approaches and to leverage existing management experiences**, whether from ICS's day-to-day conservation work or IDC's practical knowledge of island infrastructure. The documentation and

assessments leading to this capacity needs methodology clearly reveal a shared concern for bridging resource gaps, building technical skills, and improving overarching policies that guide marine management.

2.2. Assessment Questionnaire Development

The **assessment questionnaire** was developed using the questions from the 2019 Capacity Assessment for the GOS-GEF-UNDP Blue Economy Project and those from the Management Effectiveness Tracking Tool (METT). These resources provided a foundational set of questions targeting marine governance, institutional arrangements, and on-the-ground enforcement practices.

These initial questions were refined and validated through an extensive review of additional documentation relevant to marine spatial planning (MSP) and protected area (PA) management, with special emphasis on the SMSP context. The full list of questions can be found in [Annex 2](#). Refinements ensured that each question addressed at least one of the three capacity levels—systemic, institutional, or individual—so that data could be consistently categorized during analysis. This approach **created a clear link between the interview responses and the capacity-building activities** proposed in the final plan.

Key resources that guided the refinement process included UNESCO's 2021 Policy Brief on Capacity Development in Marine Spatial Planning (UNESCO-IOC, 2021), UNDP's 2008 Capacity Assessment User's Guide (UNDP, 2008), and the analysis by Ansong et al. (2021), which identified core requirements for MSP effectiveness such as programme management, stakeholder engagement, data analysis, and monitoring. The IUCN WCPA's Global Register of Competences for Protected Area Practitioners (Appleton, 2016) was also consulted to ensure alignment with international standards for PA competencies.

In addition to reviewing literature, the **project team compared new and existing questions with stakeholder feedback** from pilot interviews, cross-checking clarity, relevance, and comprehensiveness. Survey logic and phrasing were adjusted where necessary to reduce ambiguity and allow respondents to expand on context-specific challenges, such as the logistics of enforcing marine boundaries or the complexities of multi-agency coordination. Where further specificity was needed (for example, relating to hydrographic surveying or newly designated sustainable use zones), supplemental prompts were added to probe stakeholder experiences more deeply.

By **combining global best practices with local knowledge**, the questionnaire ultimately served as a robust tool for capturing capacity gaps and priorities directly linked to SMSP goals. This questionnaire was then used consistently across all interviews, ensuring comparability of results and enabling a clear mapping of stakeholder responses to the Capacity Development Plan.

2.3. Development of list of key stakeholders

A total of **seventeen key stakeholders** were selected for this assessment, encompassing government agencies, NGOs, and private sector entities. They were identified in consultation with the MSP Unit and based on their mandates in marine enforcement, resource mobilization, or higher-level governance.

This approach ensured that each major area of responsibility under the SMSP framework was represented. Stakeholders ranged from those overseeing policy and legislation to those directly

involved in day-to-day management of marine resources. In some cases, individuals or organizations provided insights not only on their own operations but also on cross-agency collaborations and future needs. A **comprehensive list**, along with each stakeholder’s main functions in relation to the SMSP, is provided in [Annex 1](#).

Seventeen stakeholders—spanning government agencies, NGOs, and private entities—were identified based on their mandates in marine enforcement, resource mobilization, and governance. A full list of these stakeholders is available in [Annex 1](#).

2.4. Interviews and Stakeholder Workshop

The **full list of interview questions** is provided in [Annex 2](#). These questions were adapted from the 2019 GOS-GEF-UNDP Blue Economy Project Capacity Assessment and the METT, then further refined following the process described in Section 2.2. In total, **seventeen key stakeholders were identified** for interviews, representing a cross-section of government agencies, NGOs, and private sector partners that are central to the SMSP’s implementation, management, and oversight. The interviews were conducted prior to the stakeholder workshop on 6 November 2024, with each respondent providing insights on systemic, institutional, and individual capacity gaps potentially affecting SMSP implementation.

During each interview, participants answered the questionnaire and offered supplementary details regarding unique circumstances, operational constraints, or cross-agency collaborations. The **methodology** used for these interviews **involved in-person discussions** where possible, supplemented by online or telephone calls if scheduling or location prevented direct interaction. Confidentiality was maintained by aggregating responses in the final analysis, although particularly relevant examples were anonymized and highlighted to illustrate recurring themes.

At the **stakeholder workshop**, participants examined and validated the preliminary findings derived from the interviews. They highlighted areas of consensus (for example, the widespread need for training in GIS and data management) as well as discrepancies, which often reflected an entity’s specific mandate (such as the Coast Guard’s call for specialized maritime enforcement training). Stakeholders also **helped refine the prioritization of capacity needs**, distinguishing urgent short-term requirements (like resource mobilization for ongoing MPA enforcement) from longer-term issues (such as the creation of a national-level maritime committee).

For the **three identified stakeholders** (Bird Island Owner, IDC, and MoT) who were not interviewed, their potential capacity needs were inferred from secondary data sources (e.g., existing management plans, previous conservation project reports) and discussions with organizations familiar with their roles. Below are the main reasons these stakeholders could not be interviewed:

- **Bird Island Owner:** Multiple contact attempts were unsuccessful. The team currently lacks an operational capacity or management plan for the proposed Zone 1 Marine Protection Area (MPA). Although they have expressed future interest in managing the site, their readiness and framework remain undeveloped.
- **Islands Development Company (IDC):** Oversees outer islands, including several large-scale Zone 2 areas. Time constraints limited direct interviews, but IDC’s existing management plans (and its partnerships with Island Conservation Society) provided context on its capacity needs.

- **Ministry of Transport (MoT):** Plays an essential co-management role for shipping, maritime safety, and transport regulations, especially in large Zone 2 MPAs. Repeated attempts to schedule an interview were unsuccessful, so capacity needs were drawn from existing documentation and indirect stakeholder insights.

This gap in direct input may influence the completeness of the capacity needs identified, particularly concerning outer islands and maritime transport. Nevertheless, the information gathered from **secondary sources and related stakeholders** (e.g., ICS, Coast Guard) helped create a preliminary picture of their potential roles and challenges within the SMSP.

The interviews formed the initial evidence base for **understanding gaps** at systemic, institutional, and individual levels. The subsequent workshop offered a **space for validation**, critique, and further refinement of these findings. For non-interviewed entities such as the Seychelles Ocean Authority (SOA), **data were derived from workshop discussions** and relevant policy documents, ensuring a participatory and well-rounded approach.

The workshop was structured around the **three capacity levels**, inviting participants to contribute ideas and discuss priority actions. Key recommendations emerging from these sessions are summarized in [Annex 4](#) and detailed in the **Stakeholder Consultation Report**, submitted separately. In particular, workshop feedback influenced how capacity gaps were ranked and shaped the final list of recommended actions in the Capacity Development Plan, ensuring both relevance and practical feasibility.



3.0 Results

This capacity needs assessment is organized across the **three levels** outlined in the ToR (systemic, institutional, and individual capacity gaps). These levels reflect distinct but interconnected aspects of capacity development:

1. **Systemic Level:** Examines governance frameworks, interagency coordination mechanisms, and legal and policy structures that impact SMSP implementation at a broad level.
2. **Institutional Level:** Focuses on the operational and organizational capacities of entities, including staffing, infrastructure, and management practices.
3. **Individual Level:** Assesses the skills, technical expertise, and professional development needs of personnel involved in SMSP-related activities.

The **methodology** was applied at an organization-by-organization level, analyzing each organization's capacity gaps across these three levels where relevant. While systemic gaps often apply broadly across multiple organizations, institutional gaps are specific to an organization's structure, resources, and mandates. Individual gaps focus on the skills and training needs of personnel within each organization. This **tailored approach** ensures that the assessment captures both overarching and organization-specific capacity needs.

It is important to note that many **organizations involved in SMSP implementation face ongoing challenges** related to human resources, policy development capacity, and resource mobilization. Acknowledging these shared challenges avoids unnecessary repetition and highlights areas where collaborative capacity-building efforts can have the greatest impact. Any exceptions to these challenges are noted in the individual organizational summaries.

As the lead ministry for SMSP implementation, the **Ministry of Agriculture, Climate Change, and Environment (MACCE)** is prioritized in the analysis to reflect its central role. The following sections summarize insights gathered from interviews, consultations, and the stakeholder workshop, incorporating an organization-by-organization analysis. These findings provide the foundation for actionable recommendations in the Capacity-Building Plan (Section 4).

3.1 Interviews with key stakeholders

Seventeen key stakeholders were interviewed as part of the capacity needs assessment, representing entities involved in implementing, managing, and overseeing the SMSP. The findings from these interviews are organized across the three levels outlined in the ToR: **systemic, institutional, and individual**. Each level highlights specific capacity gaps and recommendations tailored to address these gaps.

- **Systemic Level:** This level identifies **overarching challenges** in governance, legal frameworks, and interagency coordination. *For example, the need for a formalized governance mechanism, such as the Seychelles Ocean Authority (SOA), emerged as a critical gap across multiple stakeholders.*
- **Institutional Level:** The **Ministry of Agriculture, Climate Change, and Environment (MACCE)** is highlighted first in this analysis, as it plays a pivotal role in upholding legal frameworks, fostering stakeholder coordination, and overseeing SMSP implementation. Findings include resource shortages, inadequate staffing structures, and insufficient technical training for specific roles. Other organizations, such as the **Seychelles Coast Guard (SCG)** and **Seychelles Fisheries Authority (SFA)**, also face institutional challenges related to staffing and operational capacity.
- **Individual Level:** At this level, **gaps in specialized skills** such as GIS, monitoring, enforcement, and stakeholder engagement were prominent. Training needs are identified for key personnel within entities such as the MSP Unit, NGOs, and enforcement agencies.

The **results are synthesized below**, with detailed summaries for each organization provided in [Annex 3](#). These findings directly inform the Capacity-Building Plan (CBP) presented in Section 4, ensuring a structured and actionable approach to addressing the capacity gaps.

3.2 Government Agencies and Authorities

A. Ministry of Agriculture, Climate Change, and Environment (MACCE)

MACCE, through its Department of Environment, has a **central role in implementing the Seychelles Marine Spatial Plan (SMSP)**. The ministry's mandate includes ensuring legal compliance, shaping relevant policies, and supporting inter-agency coordination. Like many entities involved in the SMSP, MACCE **faces persistent challenges** in human resources, policy capacity, and resource mobilization.

2019 GOS-GEF-UNDP Blue Economy Project capacity assessment highlighted coordination shortfalls between government and private sectors, insufficient legislative expertise, and limited fundraising capabilities. At present, MACCE lacks a dedicated unit to secure funding beyond standard budget allocations, and its conservation planning has suffered from inadequate enforcement of monitoring and reporting requirements. These constraints have limited MACCE's ability to fully meet its legal

and policy oversight responsibilities for the SMSP. **Staffing presents a particular concern.** With only one legal officer, MACCE struggles to manage an expanding workload, including legal enforcement, compliance, and policy drafting.

Establishing a dedicated legal enforcement and compliance unit has been proposed to speed up the legal process, reduce reliance on the Attorney General's Office, and improve overall efficiency. The Ministry of Fisheries and Blue Economy (MFBE) and the Seychelles Fisheries Authority (SFA) play a pivotal role in enforcement of marine activities requiring closer collaboration and clearer alignment of roles.

Interviews indicated that human resource shortages significantly affect MACCE's ability to meet SMSP demands. The MSP Unit operates under the ministry but does not have a formal legal status. MACCE also oversees the development and review of all management plans for SMSP zones yet lacks sufficient staff to do so. **Training in management plan development and review is urgently needed.** Funding constraints further complicate MACCE's work. The Blue Economy Project has offered resource mobilization support, but progress remains slow, and the ministry still needs greater expertise to handle funding proposals and manage financial resources. Efforts to digitize reporting systems and create a data dashboard have been prioritized, but these will require sizeable investment.

MACCE also sees the **need to strengthen oversight in enforcement**, particularly by refining legal frameworks for industrial fishing and aquaculture. Rather than issuing new or separate frameworks, MACCE prefers a co-management approach with MFBE and SFA to maintain consistency and avoid jurisdictional conflicts. Its enforcement responsibilities will likely become clearer through SMSP co-management agreements for Zones 1 and 2, as well as for pre-SMSP MPAs, which will define how various agencies report and collaborate.

Several actions are already underway or planned. The **GOS-GEF-UNDP Blue Economy Project**, for example, has initiated legal and stakeholder engagement training, resource mobilization strategies, and interagency collaboration workshops to bolster MACCE's leadership capacity in high-impact sectors.

Going forward, MACCE has **identified urgent needs**, including the establishment of a dedicated legal and policy team, digital tools for enforcement reporting, and more staff training in enforcement procedures, dispute resolution, and agreement drafting. It has also **proposed a review of the Department of Environment's mandate** to ensure alignment with national priorities and SMSP objectives, reflecting the ministry's broader goal of coordinating robust and sustainable marine management across Seychelles.

B. MSP Unit

Under the **Ministry of Agriculture, Climate Change, and Environment (MACCE)**, the **Marine Spatial Planning (MSP) Unit** holds an **interim mandate** to implement the Seychelles Marine Spatial Plan (SMSP) across newly designated and pre-SMSP marine protected areas. Its primary focus is governance and coordination rather than enforcement, which remains with bodies such as the **Seychelles Coast Guard (SCG) and Seychelles Maritime Safety Authority (SMSA)**.

According to the Seychelles Ocean Authority (SOA) Act of 2021, the MSP Unit is intended to transition into the SOA, although that shift has not yet occurred. In the meantime, the MSP Unit **continues to operate under MACCE oversight**, and its four technical staff handle tasks that include

stakeholder engagement, policy integration, and coordination with agencies like the Ministry of Fisheries and Blue Economy (MFBE), the National Information Sharing and Coordination Centre (NISCC), and the Regional Coordination Operations Center (RCOC).

2019 GOS-GEF-UNDP Blue Economy Project Capacity Assessment pinpointed weaknesses in **governance, inter-agency collaboration, and resource mobilization**. These shortcomings still affect the MSP Unit, which **lacks the legal authority to enforce compliance** and must rely on MACCE or Cabinet intervention when line agencies do not abide by SMSP obligations. The team also experiences gaps in GIS, data management, and IT support. It has no dedicated IT specialist, and although at least one member holds legal qualifications, the Unit as a whole has limited capacity in international environmental law. Two staff have completed UNITAR training on the subject, but further legal integration of SMSP regulations into the mandates of line agencies will require external consultancy. To expand its perspective, the MSP Unit has **considered international exchanges** that showcase best practices in marine protected area governance.

Multiple **capacity-building initiatives**, some offered under the GOS-GEF-UNDP Blue Economy Project, aim to address these issues. The MSP Unit staff may participate in advanced GIS training (in collaboration with The Nature Conservancy, scheduled for 2025) and other specialized workshops on ocean governance, resource mobilization, and stakeholder communication. Additional training on environmental crimes, marine protected area management, and legal frameworks is expected to reinforce the Unit's ability to align different agencies with SMSP objectives. Nonetheless, the Unit remains understaffed and frequently needs new administrative protocols and technical tools to support compliance monitoring, especially in more remote areas. Management Committees, which receive some financial support from the Blue Nature Alliance (BNA), also help coordinate reporting and responsibilities among stakeholders, but the MSP Unit will require tools like satellite imagery and streamlined legal databases to improve regulatory reviews and broader oversight.

Overall, the MSP Unit must **strengthen its technical proficiency**, IT infrastructure, and coordination mechanisms to achieve the SMSP's goals. Investments in advanced skills, targeted administrative support, and strategic collaborations with enforcement agencies are key to ensuring that governance structures are aligned with SMSP objectives and that critical capacity gaps are steadily reduced.

C. Seychelles Coast Guard (SCG)

The **Seychelles Coast Guard (SCG) is essential** for implementing the Seychelles Marine Spatial Plan (SMSP), with primary responsibility for monitoring, control, surveillance, and enforcement (MCS&E) across the national Exclusive Economic Zone (EEZ). Although SCG's remit prominently includes Zones 1 and 2, it must also monitor Zone 3 to maintain effective management and compliance across all marine areas. In practice, SCG leads maritime security and resource protection efforts, collaborating closely with the Seychelles Fisheries Authority (SFA), Seychelles Maritime Safety Authority (SMSA), and the Regional Coordination Operations Center (RCOC) to ensure adherence to SMSP regulations.

Despite its pivotal role, SCG faces **operational and technical constraints** that hinder its ability to meet the growing demands of SMSP implementation.

The unit employs 211 personnel, yet 120 of them are needed just to run its four large patrol vessels (30 crew per vessel). This **shortage** is particularly acute when conducting extended missions. Only one vessel has the endurance to remain at sea for two to three months at a time, while the others

handle shorter deployments. Staff recruitment and training remain pressing needs for sustaining patrols, law enforcement, and emergency responses. Several **technical gaps** also limit SCG's operational effectiveness, including shortfalls in hydrography expertise, the absence of qualified military divers, and insufficient capacity in maritime law. Reopening the hydrography office, for example, will require specialized Levels A, B, and C training and may continue to rely on external partnerships, such as with the UK Hydrographic Office, to maintain broader capabilities. The **lack of qualified military divers** affects compliance monitoring, underwater inspections, and recovering equipment from restricted zones. SCG's challenges also extend to search and rescue (SAR), which is central to its mandate for marine safety. Strengthening SAR capabilities requires additional training and the development of standardized operational protocols.

SCG's role in **resource mobilization and public communication** is equally significant, as it needs to engage the public and foster a culture of compliance. The GOS-GEF-UNDP Blue Economy Project is helping address many of these needs by arranging surveillance and enforcement trainings, providing advanced monitoring tools, and delivering workshops on resource mobilization. Outreach initiatives under this project are intended to raise public awareness and promote responsible marine practices. Meanwhile, SCG has identified further capacity-building priorities: advanced training in commercial and rescue diving, underwater welding, marine mechanics, and yacht master certification. It also aims to acquire long-range drones capable of eight- to twelve-hour flights to improve surveillance and early detection of illegal activities. **Additional training** in maritime law, potentially leading to a Bachelor of Science degree for one staff member, is also considered urgent.

To improve interagency coordination, SCG highlights **the importance of sustained collaboration with SFA, SMSA, and the National Information Sharing and Coordination Centre (NISCC)**. Existing facilities, such as a maritime operation center equipped with AIS systems, are being expanded, and a duplicate center at NISCC is underway to facilitate joint rescue operations. Investments in aerial drone capacity, radar systems, and other emerging technologies will further enhance monitoring and detection of unlawful behavior. Infrastructure development remains crucial, particularly in remote areas where SMSP enforcement is needed most. SCG has underscored reopening and staffing the hydrography office, acquiring long-range drones, and upgrading enforcement facilities in isolated locations as essential steps to fully meet SMSP demands.

D. National Information Sharing and Coordination Centre (NISCC)

The National Information Sharing and Coordination Centre (NISCC) plays a vital role in supporting the implementation of the Seychelles Marine Spatial Plan (SMSP). Established in 2018 through a Memorandum of Understanding (MoU) with seven signatory members, NISCC coordinates maritime and aeronautical security and safety, **focusing on SMSP enforcement and collaboration** among key agencies such as the Seychelles Coast Guard (SCG), Seychelles Fisheries Authority (SFA), and Seychelles Maritime Safety Authority (SMSA). Despite being included in the 2019 capacity assessment under the GOS-GEF-UNDP Blue Economy Project, the centre **faces persistent challenges** that hinder its operational effectiveness, particularly in technical proficiency, data analysis, and infrastructure.

The 2019 assessment highlighted **critical gaps in NISCC's capacity**. Among these were limitations in technical expertise, particularly in the use of advanced surveillance tools such as the Global Maritime Distress and Safety System (GMDSS). Responsibility for the GMDSS lies primarily with SMSA, but

NISCC supports its coordination and information-sharing functions with other agencies. Additionally, NISCC hosts the Windward App, which costs approximately USD 150,000 annually and provides essential risk rating and vessel monitoring data. However, **staff require additional training** to maximize its utility. Some tools, such as drones and satellite technology, are mentioned as priorities but should primarily be coordinated with SCG and SMSA to avoid redundancy in resource allocation. Additionally, NISCC's ability to gather and process evidence that meets legal standards for prosecution was identified as an area requiring significant improvement. This underscores the **need for comprehensive training** that encompasses the entire evidence-handling chain, from on-the-ground collection to case filing and legal proceedings.

Interviews with NISCC staff reinforced these findings, revealing ongoing challenges in public communication and engagement, as well as infrastructure constraints. The Maritime Coastal Radio Station is undergoing phased upgrades to align with SOLAS compliance. Phase 1, funded with SCR 12 million, involves installing HF antennas to cover the EEZ, while Phase 2 requires an additional SCR 36 million to install VHF antennas on the west coast, including locations like Nid d'Aigle and La Digue. Plans are also in place to extend NISCC's building to accommodate additional operations staff; however, the allocated SCR 5 million for the building expansion may be insufficient to meet the operational needs. Many stakeholders and the general public remain unclear about NISCC's role and mandate, which has led to gaps in collaboration and awareness. Training in media communication and stakeholder engagement is necessary to address this issue.

Capacity-building initiatives under the Blue Economy Project aim to address some of these challenges. Planned training sessions include the use of coordinated tools such as drones and satellite technology with SCG and SMSA, as well as maintenance and troubleshooting of critical communication systems. Search and rescue (SAR) training with the French and UK navies and maritime intelligence analysis workshops supported by Interpol and the US Navy are ongoing. However, a National Search and Rescue (SAR) Plan and an updated SAR Act are urgently needed to formalize roles and responsibilities across agencies, including SCG, SMSA, and SCAA. Additionally, discussions are underway to trial the EarthRanger software platform for incident reporting and real-time monitoring, which could prove particularly beneficial for outer islands.

While NISCC has made significant strides in coordinating maritime safety, **further investments in technical training, infrastructure, and operational resources are essential**. Finalizing the Maritime Coastal Radio Station upgrade, expanding the office building, and ensuring resource sharing and alignment with SCG and SMSA for tools like drones and satellite technology are key priorities. By addressing these gaps, NISCC can strengthen its role as a hub for maritime safety, intelligence, and emergency response across Seychelles' EEZ.

E. Seychelles Fisheries Authority (SFA)

The **Seychelles Fisheries Authority (SFA)** plays a critical role in implementing the Seychelles Marine Spatial Plan (SMSP), with its primary mandate focused on managing fisheries within the country's ocean. Fisheries management plans developed by SFA provide the framework for defining measures relevant to MPAs. These plans may not always align perfectly with SMSP zoning, as MPAs are managed as distinct units. *For example, measures included in draft Zone 2 plans are expected to be replaced by finalized fisheries management plans.*

Despite this crucial role, the expansion of SMSP has **presented significant challenges for SFA, particularly in differentiating fisheries management from monitoring responsibilities**. Fisheries management involves developing strategies and frameworks for sustainable use, while fisheries monitoring focuses on gathering data to assess compliance and ecosystem health. Interviews revealed that **SFA's mandate is often unclear to stakeholders**, which has led to confusion regarding its role in implementing measures in Sustainable Use Areas (SUAs) and subsistence fisheries in Zone 1. There is a need for better awareness and understanding of SFA's responsibilities within SMSP zones.

The **2019 GOS-GEF-UNDP Blue Economy Project** capacity assessment highlighted several gaps in SFA's capabilities.

- **At the systemic level**, limited clarity in SFA's mandate has created confusion among stakeholders, and better alignment between fisheries management plans and SMSP zoning requirements is needed.
- **At the institutional level**, resource and logistical challenges significantly constrain enforcement and monitoring efforts. Mobilizing personnel to remote islands often depends on external support, such as IDC, which is difficult given SFA's inability to pay commercial transportation rates. Additionally, SFA lacks adequate legal and scientific capacity to handle its increasing responsibilities effectively.
- **At the individual level**, significant gaps in technical expertise exist, particularly in stock assessments for remote locations, recreational and sport fisheries, and multi-species approaches for coral reef fisheries.

SFA has a legal department consisting of one staff member and a retainer but **lacks sufficient capacity to manage increasing responsibilities**. Interviews identified the need for one additional legal officer, particularly to enhance expertise in using VMS data as evidence in court cases. Additionally, the science and monitoring team faces significant gaps, particularly in stock assessments for remote locations and recreational and sport fisheries. SFA is moving toward multi-species approaches for coral reef fisheries but lacks resources for a fisheries-independent survey, particularly as its existing research vessel is over 30 years old.

High staff turnover exacerbates these challenges, making it difficult to retain institutional knowledge and maintain operational continuity. **Mentorship programs have proven effective** for addressing this issue, providing expert guidance during data collection and analysis. Resource mobilization remains a significant challenge for SFA, particularly as the organization transitions to cost-recovery mechanisms. While less dependent on donor funding, SFA may require donor support during this transition.

The GOS-GEF-UNDP Blue Economy Project is actively addressing several of these gaps through targeted initiatives. These include **training programs on enforcement strategies, monitoring and control, and public engagement**. However, additional efforts are needed to address staffing shortages, logistical constraints, and gaps in scientific capacity. Fisheries stakeholders have evolved significantly over the past decade, requiring new awareness campaigns to align stakeholders with current SMSP objectives.

F. Ministry of Fisheries and Blue Economy (MoFBE)

The Ministry of Fisheries and Blue Economy (MoFBE) plays a pivotal role in the Seychelles Marine Spatial Plan (SMSP) by overseeing policy development and legislative frameworks related to fisheries across all three SMSP zones, including subsistence fishing that is conditionally allowable in Zone 1. Unlike the Seychelles Fishing Authority (SFA), which directly manages fisheries operations, **MoFBE's responsibilities are centered on ensuring that policies align with SMSP objectives**, coordinating stakeholders, and supporting the sustainable development of the existing priority sectors such as fisheries as well as new and emerging sectors such as aquaculture, renewable energy, marine biotechnology and so on. Its work is government-funded and iteratively aligned with national strategies for ocean governance, fisheries, and biodiversity conservation.

According to the questionnaire responses, a systematic challenge identified was the **need for enhanced coordination** between MoFBE, MACCE, and SFA to ensure that policies for aquaculture and industrial fisheries align with SMSP objectives. Additionally, **MoFBE lacks sufficient expertise in using tools** like VMS/AIS data for maritime domain awareness and risk assessment and relies heavily on external entities for capacity-building initiatives. Training is urgently needed to equip staff with the skills to analyze and act on data generated by these tools, which are critical for fisheries monitoring and policy planning.

The 2019 capacity assessment highlighted MoFBE's **critical gaps**, particularly in policy formulation, legislative drafting, and inter-agency coordination. Limited staff capacity in these areas has resulted in reliance on external expertise, and resource mobilization challenges persist. Resource mobilization here refers specifically to building expertise in securing external funding, such as grants, to complement government budgets.

MoFBE faces a pressing **need to strengthen its internal capacity for policy development**, legislative oversight, and stakeholder engagement. Improved collaboration with SFA and MACCE is essential to address overlapping mandates in areas such as aquaculture and subsistence fishing in Zone 1. Additional expertise is also needed to manage increasing demands, including integrating AI-based fisheries management systems and aligning fisheries practices with SMSP zoning requirements.

Under the GOS-GEF-UNDP Blue Economy Project, MoFBE is participating in initiatives to address some of its capacity gaps:

- Workshops on policy and legislative development aim to enhance its ability to draft and update policies that align with SMSP goals.
- Training on VMS/AIS data utilization and artificial intelligence tools, in partnership with external entities like OceanMind, is under development. This will improve MoFBE's ability to identify risks and suspicious activities more effectively.
- Training in inter-agency coordination is designed to strengthen collaboration between SMSP stakeholders, while targeted programs on work planning and KPI development will help improve the ministry's monitoring and evaluation capabilities.

Looking forward, **MoFBE will require further investment** to develop training programs, recruit additional staff, and improve inter-agency collaboration mechanisms. Developing targeted outreach strategies to enhance stakeholder understanding of SMSP-related policies and fisheries management plans will also be critical. Efforts to enhance maritime domain awareness through advanced tools

and AI-supported analyses could further improve MoFBE's operational efficiency and alignment with SMSP goals.

G. Seychelles Maritime Safety Authority (SMSA)

The Seychelles Maritime Safety Authority (SMSA) plays a critical role in regulating maritime activities, ensuring vessel safety, and conducting vessel surveys. However, it faces persistent challenges, including human resource shortages, infrastructure deficits, outdated policies, and fragmented stakeholder coordination. These obstacles hinder its ability to fulfil its mandate effectively and contribute to the implementation of the Seychelles Marine Spatial Plan (SMSP).

Previous assessments, including the **2014 Protected Areas Institutions Capacity Assessment, GEF7 Blue Economy Project documents, and METT evaluations**, have identified systemic and institutional weaknesses. SMSA operates with minimal staff; currently, one staff member manages multiple roles, and three additional positions are awaiting approval. Retention issues persist due to uncompetitive salaries, as evidenced by recent departures of trained legal personnel.

SMSA lacks its own enforcement vessels and relies on the Seychelles Coast Guard for enforcement activities. The absence of enforcement vessels and infrastructure, such as berthing or maintenance facilities, raises concerns about feasibility, especially as inter-agency coordination remains a key priority. Therefore, **investing in collaborative frameworks with agencies like the Coast Guard** may be more efficient than acquiring independent enforcement capabilities. Policy gaps, including exemptions for fishermen from mandatory safety training, require immediate reform. Additionally, **SMSA lacks a National Maritime Committee** to unify stakeholders and streamline coordination. Establishing this committee, which will require Cabinet approval, is seen as an essential step for effective oversight.

Despite these challenges, SMSA **has developed strategic partnerships with organizations** like the Seychelles Maritime Academy to provide training for seafarers, although maritime education needs to be expanded to include safety training for fishermen. International collaborations with the European Maritime Safety Agency (ESMA) support SMSA's programs in maritime law, port state control, and vessel inspections.

SMSA's recent **modernization efforts** include the introduction of digital tools and AI-driven systems to improve efficiency, oversight, and data management. However, additional investments in digital literacy training for staff and the development of a comprehensive maritime safety database are needed to maximize these tools' benefits. To improve its capacity, SMSA is prioritizing the recruitment and retention of skilled personnel, alongside proposed salary adjustments. Infrastructure upgrades, such as expanding office space and digitizing reporting systems, are critical to enhancing operational capacity. SMSA is also exploring diversified funding sources, including partnerships with SeyCCAT and revenue generation from maritime activities, to ensure financial sustainability. Rather than acquiring enforcement vessels, SMSA could focus on building partnerships and leveraging existing resources of the Coast Guard and other agencies. By enhancing inter-agency collaboration, addressing policy gaps, and modernizing its operational framework, SMSA can effectively fulfil its regulatory role while supporting SMSP's long-term objectives.

3.3 Non-Government Organizations (NGOs)

A. Denis Private Island (DPI) & Green Island Foundation (GIF)

Denis Private Island (DPI) and the Green Island Foundation (GIF) represent a collaborative private-public partnership for managing a Marine Protected Area (MPA) within the SMSP framework. DPI, as a privately-owned island, handles general MPA management, while GIF, an environmental NGO, focuses on biodiversity monitoring and research. While this co-management model is not unique, it highlights the potential for effective governance through collaboration. However, as the MPA is still in its early stages, with a management plan drafted but not yet implemented, both organisations face significant operational and capacity challenges.

Neither DPI nor GIF currently has full-time dedicated staff for MPA management. DPI requires a full team to work solely on the MPA, while GIF does not have a full-time research team to support site-specific activities. A research team of 3–5 people is needed, with a focus on monitoring species, reporting data, and implementing management plan activities. GIF lacks its own infrastructure and equipment, such as drones and stereo BRUVs, to carry out effective monitoring. A national monitoring program could help bridge this gap. Additionally, foreign staff at DPI will require training on national methodologies and regulations for species monitoring and enforcement.

Despite their strong commitment, DPI and GIF have not been formally assessed in prior capacity-building efforts like the 2019 GOS-GEF-UNDP Blue Economy Project. Key gaps have been identified, including a lack of operational protocols, training for enforcement, and comprehensive funding strategies. Interviews highlighted the need for a Standard Operating Procedure (SOP) to define roles and responsibilities for co-managers, establish protocols for addressing poaching incidents, and outline actions for staff. Legal expertise is required to assist in creating these protocols and providing training to ensure compliance. The inclusion of enforcement provisions within the co-management agreement is currently a proposal and has not yet been finalized. The enforcement framework presents another challenge, with DPI planning to allocate funds from the Blue Nature Alliance (BNA) project for training security officers. However, no enforcement staff are currently in position, and ongoing training, including refresher courses, will be necessary to address high turnover. Additionally, DPI requires enforcement infrastructure, such as a patrol boat and drones for monitoring.

Denis Private Island (DPI) and the Green Island Foundation (GIF) face several capacity development challenges that are critical for effective Marine Protected Area (MPA) management. For specific research, GIF will require external expertise and a research team to support DPI. Training of Trainers (ToT) programs could help GIF staff build capacity to assist DPI and other stakeholders. Training in species monitoring, data analysis, and reporting is essential for DPI staff, particularly foreign personnel unfamiliar with national standards. A Training of Trainers (ToT) program for GIF could build capacity to support DPI staff and other national stakeholders.

To combat erosion and ensure climate resilience, DPI must integrate climate change mitigation and adaptation strategies into its management plan, prioritizing nature-based solutions like mangrove restoration. Additionally, DPI is addressing the need for island-wide internet connectivity to improve communication and response times.

For DPI and GIF to effectively fulfil their co-management responsibilities, a comprehensive approach is necessary. This includes finalizing and implementing the fiscal co-management agreement with

MACCE, integrating capacity-building efforts into the national Capacity-Building Plan (CBP), and leveraging partnerships to address identified gaps. Training programs should focus on both technical and strategic needs, including enforcement, stakeholder engagement, and climate resilience. By addressing these requirements, DPI and GIF can play a pivotal role in advancing the goals of SMSP and ensuring the sustainable management of their MPA.

B. Nature Seychelles

Nature Seychelles, a leading environmental NGO, manages the Cousin Island Special Reserve, a pre-SMSP protected area that plays a crucial role in Seychelles' biodiversity conservation efforts. Although not directly integrated into the SMSP framework, the organization aligns with its objectives through its work in sustainable marine resource management, conservation research, and community engagement.

The 2019 capacity assessment identified critical areas for development within Nature Seychelles, including the need to improve coordination with government entities and other conservation organizations to foster stronger collaboration. Challenges were also noted in monitoring and reporting, with gaps in generating comprehensive conservation status reports and meeting reporting requirements. Coordination with MACCE has been particularly challenging, as the lack of a clear national communication platform for MPAs hinders alignment between the ministry and MPA managers. Cases like poaching incidents have highlighted gaps in enforcement support, with evidence mishandling by police and poor interagency coordination.

Interviews highlighted significant financial and staffing challenges. The organization operates with 13 staff on Cousin Island, including one full-time conservation manager, who oversees all operations but struggles to manage the expanding responsibilities. Additional marine-focused staff are needed, particularly to address gaps in coral restoration and marine monitoring activities. Financial constraints, exacerbated by dependency on project-based funding, have hindered consistent capacity-building efforts. Nature Seychelles has noted that while it had adequate funding pre-COVID, current financial struggles limit the ability to hire and retain specialized personnel.

Critical infrastructure challenges include severe erosion, which has forced the retreat of field stations by 13 meters since the 1970s. Rebuilding critical structures like the international field center and warden quarters is estimated at SCR 500,000 each. Essential equipment such as rugged tablets, GPS units, binoculars, drones, and remote cameras is urgently required to enhance monitoring and enforcement capabilities.

Nature Seychelles' conservation goals center on biodiversity preservation through effective management of the Cousin Island Special Reserve and alignment with national conservation strategies. However, gaps in stakeholder engagement and governance remain barriers to achieving these objectives. MACCE support is particularly needed for enforcement protocols and a standardized national approach for managing MPAs.

Future efforts should focus on strengthening partnerships with national entities to enhance governance, equipping staff with advanced technical skills in species monitoring, data collection, and conflict resolution, and developing sustainable finance mechanisms to reduce reliance on donor funding. Achieving these objectives will not only address current gaps but also position Nature Seychelles to make a stronger contribution to Seychelles' broader marine conservation and spatial planning goals.

C. Save Our Seas Foundation D'Arros Research Centre (SOSF-DRC)

The Save Our Seas Foundation D'Arros Research Centre (SOSF-DRC) is a scientific field station based on D'Arros Island, dedicated to marine and tropical research. Its primary contributions to the Seychelles Marine Spatial Plan (SMSP) lie in conservation research, biodiversity monitoring, and public engagement. SOSF-DRC focuses on key species such as manta rays, sea turtles, and sharks, providing critical data to inform conservation efforts. While SOSF-DRC plays a vital role in research and monitoring, the proposed management of D'Arros and St. Joseph marine waters would involve Chelonia, an entity based on D'Arros. Co-management agreements with the government have not yet been finalized, and Chelonia's role remains conditional.

Chelonia has expressed interest in overseeing enforcement and stakeholder coordination for the proposed MPAs, which include Zone 1 (High Biodiversity Protection) and Zone 2 (Medium Protection and Sustainable Use Area). These responsibilities would require significant coordination with MACCE, MFBE, SFA, SMSA, the Seychelles Coast Guard, and other relevant stakeholders. The draft management plan defines these areas but has not yet been formally approved or implemented. Chelonia would face challenges managing two zones with distinct requirements, emphasizing the need for tailored management strategies and enhanced collaboration.

SOSF-DRC does not intend to take on enforcement responsibilities, focusing instead on its strengths in research and education. The owner of D'Arros and St. Joseph has expressed willingness to provide vessels and accommodation to support external enforcement personnel, such as rotating Coast Guard officers. SOSF-DRC has identified the need for clarity on national-level communication for MPAs, suggesting a centralized approach managed by the MSP Unit or SMSA. The centre aims to expand its research focus to include climate change impacts and coral reef ecosystems. While not facing financial constraints, SOSF-DRC has identified a need to enhance its capacity in public outreach and community engagement. Training in conflict resolution and stakeholder engagement has been identified as critical for Chelonia staff to improve interactions with stakeholders.

SOSF-DRC's current research priorities, such as monitoring key species and exploring climate change impacts, could support management plan implementation if aligned more directly with governance and enforcement needs. The centre is well-equipped with vessels, staff, and radar installations but requires additional training in monitoring habitats and species not currently part of its work. Chelonia, on the other hand, would need to address gaps in enforcement capacity, stakeholder engagement, and the development of tailored management strategies to manage the complexities of the two MPA zones effectively.

SOSF-DRC has undertaken internal initiatives to strengthen its operations, including advanced training in research methodologies and statistical analysis. The centre is also exploring partnerships with local and international conservation organizations to share resources and expertise. While funding is not a constraint for SOSF-DRC, the centre has expressed its willingness to support training for other entities, such as Chelonia, in areas where it has established expertise, particularly in monitoring and research methodologies.

Chelonia's priorities include building enforcement capacity and stakeholder engagement strategies to manage the complexities of the two MPA zones effectively. This includes hosting rotating Coast Guard officers for enforcement on D'Arros, although the details of this arrangement are not yet finalized. Additionally, Chelonia requires best practices for running stakeholder workshops and

building a network of qualified consultants to support MPA management. If these challenges are addressed, Chelonia's interest in enforcement and stakeholder consultation could significantly contribute to the effective management of the D'Arros and St. Joseph marine areas under the SMSP framework.

D. Seychelles Islands Foundation (SIF)

The Seychelles Islands Foundation (SIF) manages key conservation areas, including the Aldabra Atoll UNESCO World Heritage Site and the adjacent Aldabra Marine Special Reserve, globally significant areas for biodiversity conservation. SIF has been a key stakeholder in the Seychelles Marine Spatial Plan (SMSP) since 2014, contributing through ecosystem management, scientific research, and public awareness. The remote and challenging conditions in which SIF operates present significant capacity challenges that require targeted solutions.

SIF has faced persistent issues highlighted in management effectiveness evaluations conducted in 2007, 2014, and 2022. High staff turnover remains a major concern due to the extreme isolation and demanding living conditions at Aldabra, which result in a loss of institutional knowledge and continuity in conservation efforts. Addressing this challenge requires robust mechanisms for staff renewal and knowledge transfer to ensure smooth transitions and operational continuity.

Surveillance and enforcement capacity is another pressing challenge. Limited infrastructure and outdated monitoring tools constrain SIF's ability to protect Aldabra's ecosystems effectively. The Aldabra Marine Special Reserve, while separate from the terrestrial island, faces similar challenges requiring enhanced surveillance through modern tools such as drones and real-time monitoring systems. Improved coordination with national enforcement agencies like the Seychelles Coast Guard (SCG) and the National Information Sharing and Coordination Centre (NISCC) is critical for addressing illegal activities in the reserve. SIF also faces challenges in resource mobilization. While the foundation has successfully secured project-based funding, long-term financial sustainability remains uncertain. Capacity-building efforts focused on project proposal development, financial planning, and donor engagement are essential to diversify funding streams and secure sustainable resources for ongoing operations.

In addition to addressing financial challenges, SIF requires advanced technical training to strengthen its conservation and monitoring programs. Staff need to build capacity in modern data collection techniques, habitat monitoring methodologies, and habitat restoration practices. SIF is actively exploring synergies with other institutions, including the use of shared resources for ecological monitoring, which could provide cost-effective solutions for data analysis and management. Upgrading research infrastructure, including field equipment and data management systems, is essential to enhance operational efficiency and improve conservation outcomes.

To address these capacity needs, SIF must focus on strengthening its surveillance and enforcement strategies, improving resource mobilization, and building effective systems for staff renewal and knowledge transfer. By investing in advanced conservation techniques and fostering collaboration with enforcement agencies and conservation partners, SIF can continue to play a leading role in biodiversity conservation. These measures will ensure the foundation's ability to safeguard critical ecosystems, both terrestrial and marine, for future generations.

E. Marine Conservation Society Seychelles (MCSS)

The Marine Conservation Society Seychelles (MCSS) is a prominent NGO focused on marine conservation, with key responsibilities including the management and enforcement of the proposed South Mahé Seasonal Protected Area (SPA) in Zone 3 of the SMSP framework. The organization also conducts long-term sea turtle monitoring, a program established in 2004. Despite its important contributions to conservation, MCSS faces operational and capacity challenges that limit its ability to fully realize its objectives. The organization has stated that an optimal team for the management of the SPAs would consist of four staff members, requiring the recruitment of at least two additional personnel. Funding gaps remain a major issue, as MCSS relies heavily on project-based funding, often resulting in operational gaps between projects.

MCSS does not have a dedicated facility within or nearby the SPAs, which means it lacks an office with reliable phones and internet infrastructure to support its sea turtle monitoring and enforcement operations efficiently. Establishing such a facility is critical to strengthening organizational capacity. While MCSS occasionally uses volunteers or external support for specific activities like turtle monitoring, reliance on volunteers is not sustainable for long-term operations.

MCSS has identified several challenges that must be addressed to strengthen its role in SPA management and broader conservation efforts. The SPA is not yet gazetted, and MCSS requires training to better understand the gazetting process, management plan implementation, and regulation development. Once gazetted, MCSS will need guidance from MACCE to finalize boundaries and complete the SPA management plan. Staffing remains a pressing issue, as the organization relies on a single individual for SPA-related tasks while also managing other responsibilities. Training gaps also present significant obstacles. The organization requires capacity building in GIS, R programming, and basic statistics to improve in-house data analysis. Staff also need training in writing articles, creating infographics, and simplifying complex data for outreach materials to improve communication and public engagement. For ecosystem-based beach rehabilitation, drone training for profiling and monitoring has been identified as a priority. Current rehabilitation efforts, such as planting *Scaevola* at Anse Bazarka, have proven inefficient as these measures are often washed away during rough seasons.

MCSS is actively working to address these challenges through ongoing and planned activities, though it lacks a structured capacity-building program. Sustainable funding is a critical priority to secure staffing and establish an HR structure to streamline recruitment and staff management processes, as these responsibilities currently fall on the CEO. The sea turtle monitoring program continues to be a central focus, with efforts underway to secure sustainable funding. The organization has initiated stakeholder engagement for the SPA, conducting a meeting in Takamaka and planning further consultations under MACCE's leadership. Beach rehabilitation projects are also in progress, with a focus on exploring more effective methods, such as the use of drones for profiling and ecosystem-based solutions to mitigate erosion. Additionally, MCSS has expressed interest in external training programs and collaborative opportunities to enhance its technical and operational capacity. While equipment such as drones, trimbles, and vehicles are available, staff need training on programming flight patterns for drones to improve efficiency.

MCSS plays a critical role in marine conservation and SPA management in Seychelles, but it requires significant support to overcome challenges in staffing, training, infrastructure, and operational tools. Addressing these needs through capacity-building initiatives, enhanced stakeholder collaboration,

and sustainable funding mechanisms will strengthen MCSS's ability to achieve its conservation objectives and align more effectively with the SMSP framework.

F. Island Conservation Society (ICS)

The Island Conservation Society (ICS) is a critical NGO managing prominent conservation areas across Seychelles, including Aride Special Reserve, Farquhar Atoll, and the Alphonse Group. ICS collaborates closely with the Island Development Company (IDC), emphasizing the importance of partnerships for marine and terrestrial conservation. ICS is dedicated to marine and terrestrial ecosystem preservation through ecological monitoring, long-term research, and community engagement. However, its operations are constrained by reliance on external enforcement agencies, minimal staffing, outdated equipment, and uncertain funding streams. Enhancing ICS's capacity is essential for its continued contribution to Seychelles' marine spatial planning (SMSP) framework.

ICS currently operates with minimal staff, including specialists in marine and terrestrial ecosystems, but additional personnel are needed to meet growing conservation demands. The organization replaces and retrains staff approximately every two years, which increases operational costs and hinders continuity. While ICS relies on the Seychelles Coast Guard for enforcement needs on the Outer Islands, this support is not sufficient to meet all enforcement demands. Exploring whether ICS should develop its own enforcement program, in alignment with SMSP zones and coordinated with the Coast Guard, would require further feasibility analysis. The ICS Ranger Training Center focuses on building capacity for island-based conservation and is set to expire in 2025. The training center currently supports land-based conservation activities; however, its relevance for training Rangers to conduct ocean monitoring aligned with SMSP zones has not been determined. Financial challenges impact ICS's infrastructure development. Land-based infrastructure needed to support marine monitoring, enforcement, and research remains underfunded, with specific budgetary estimates not provided in the available data. Investments in larger boats, drones, radar, and advanced monitoring tools are critical to enhance ICS's capacity for effective conservation.

Additionally, ICS requires a standardized data collection system, weather stations for oceanography, and enhanced collaboration mechanisms to improve ecological monitoring. Partnerships with universities and other research institutions have facilitated ongoing training and research collaborations. However, addressing funding gaps, staff shortages, and infrastructure deficiencies remains essential to stabilize recruitment, expand operational capacity, and meet increasing conservation demands.

3.4 Entities Not Interviewed

While the consultancy team was able to engage with the majority of identified stakeholders, interviews with several key entities (the Seychelles Port Authority (SPA), the Regional Coordination Operations Centre (RCOC), Islands Development Company (IDC), Bird Island Owner, Seychelles Parks and Gardens Authority (SPGA), and the Ministry of Transport (MoT)) were not conducted. However, their roles remain critical to the implementation of the SMSP. The information provided below is based on documented sources, such as discussions facilitated by SeyCCAT, background documentation, and secondary references.

A. Seychelles Parks and Gardens Authority (SPGA)

SPGA is responsible for managing major marine and terrestrial protected areas, including Curieuse Marine National Park and Baie Ternay Marine National Park. As one of the largest organizations overseeing pre-SMSP protected areas, its mandate includes biodiversity conservation, visitor management, enforcement, and ecological monitoring. SPGA faces resource shortages, particularly in staffing and technology, such as drones and data management tools. These gaps hinder effective enforcement and real-time ecological monitoring. Collaboration with entities like the Coast Guard and MACCE has been recommended to strengthen enforcement capabilities. Structured training in GIS, conflict resolution, and enforcement protocols has also been identified as a priority for SPGA.

B. Seychelles Port Authority (SPA)

The Seychelles Port Authority (SPA) plays a crucial role in monitoring imports and exports, including tracing illegal fishing activities and supporting enforcement of allowable activities under the SMSP. Their infrastructure and capacity to assist in data management, surveillance, and communication with enforcement agencies like the Coast Guard highlight their importance to SMSP implementation. Future consultations with the SPA will focus on their capacity to contribute to monitoring, compliance, and enforcement efforts across SMSP zones.

C. Regional Coordination Operations Centre (RCOC)

The RCOC is a vital regional stakeholder for maritime security and coordination. Their contributions to combating illegal activities, including unregulated fishing and human trafficking, make them a key player in SMSP success. Although not directly engaged during this consultancy, their intelligence-sharing capabilities and collaboration with national enforcement agencies are critical to monitoring and enforcement. Future engagement will explore how the RCOC's regional expertise can complement local efforts within the SMSP framework, particularly in Zones 1 and 2.

D. Island Development Company (IDC)

IDC plays a vital role in managing outer islands that fall within SMSP Zones 1 and 2. They are a key partner of ICS, enabling conservation centres to operate on outer islands. IDC's involvement spans multiple designated MPAs, including both High Biodiversity Protection Areas (Zone 1) and Medium Biodiversity Protection and Sustainable Use Areas (Zone 2). The need for structured coordination and resource allocation between IDC and other implementing agencies is crucial. Future consultation with IDC will be necessary to define specific capacity-building needs.

E. Bird Island Owner

The Bird Island Owner has expressed willingness to manage the Zone 1 MPA surrounding Bird Island. However, the management structure, formal team, and associated plans are yet to be fully developed. At present, there are no clear capacity-building needs to be identified, but engagement with the Bird Island team in the future will help define requirements as the management framework is established.

F. Ministry of Transport (MoT)

The Ministry of Transport has a significant role in SMSP implementation, particularly as a co-manager of large Zone 2 MPAs. MoT oversees maritime transport and shipping activities, which are essential components of sustainable use and compliance within these areas. Despite repeated attempts to engage with MoT, no response was received during the consultancy period. Future collaboration with MoT will be essential to address their capacity-building needs and ensure alignment with SMSP implementation goals.

3.5 Stakeholder workshop

The stakeholder workshop was held on Wednesday, 6th November, and brought together representatives from government agencies, NGOs, and private sector stakeholders to validate the preliminary findings of the capacity needs assessment and provide recommendations for the Capacity Development Plan (CDP).

Key Results and Recommendations

The workshop discussions were structured to address capacity gaps at the systemic, institutional, and individual levels, as well as identify priorities for capacity development. The main results and recommendations are summarized below:

Systemic Level

- **Governance:** Stakeholders emphasized the need for clear governance frameworks, including the formal establishment of the Seychelles Ocean Authority (SOA) and its associated roles and mandates. The SPGA's role as a key entity managing extensive pre-SMSP protected areas was also highlighted in relation to governance improvements.
- **Policy Development:** Accelerating the approval of the SMSP Strategic Management Framework (SMF) and relevant regulations was identified as a priority.
- **Coordination Mechanisms:** Improved interagency coordination and stakeholder engagement mechanisms are essential for effective SMSP implementation.

Institutional Level

- **Capacity for MPA Management:** Capacity-building efforts should focus on agencies tasked with managing Zones 1 and 2 MPAs, particularly on resource mobilization, enforcement, and monitoring.
- **Co-Management Structures:** Stakeholders emphasized the importance of defining clear roles and responsibilities for co-management entities, such as ICS, IDC, and private-sector partners. The SPGA's need for updated management plans to align with SMSP objectives and to incorporate emerging technologies was specifically noted.
- **Resource Allocation:** Addressing resource gaps, including staffing, equipment, and infrastructure, is critical for institutional capacity enhancement. For SPGA, investment in drones, GPS systems, and data management software was recommended as a priority.

Individual Level

- **Technical Training:** Priority training areas include GIS and data management, enforcement protocols, marine monitoring, and stakeholder communication.
- **Knowledge Sharing:** Stakeholders recommended establishing peer-to-peer learning platforms to share best practices and experiences from other Large-Scale MPAs (LSMPAs) and Marine Spatial Plans.
- **Professional Development:** Structured mentorship programs and targeted workshops were identified as key components for building individual competencies.

Integration into the Capacity Development Plan (CDP)

The workshop outcomes have been integrated into the Capacity Development Plan to ensure alignment with stakeholder priorities and SMSP objectives. Notably, recommendations such as peer-to-peer learning, professional training, and improved governance structures have been highlighted as actionable strategies within the CDP.

3.6 Synergies in Monitoring, Control, and Surveillance

Collaboration among Seychelles' key monitoring, control, and surveillance (MCS) agencies is crucial for implementing the Seychelles Marine Spatial Plan (SMSP). The existing partnerships and areas of potential improvement reveal the importance of a unified approach to managing marine resources effectively.





The National Information Sharing and Coordination Centre (NISCC) plays a central role in maritime intelligence, collecting and sharing critical data like vessel monitoring and risk ratings with agencies such as the Seychelles Coast Guard (SCG) and the Seychelles Fisheries Authority (SFA). This collaboration ensures that data-driven decisions are made in areas such as illegal fishing and maritime safety. However, the reliance on informal communication methods was highlighted as a limitation during the workshop. Standardized protocols for sharing intelligence could enhance efficiency and consistency across agencies.

The Seychelles Coast Guard complements NISCC by focusing on enforcement. While NISCC monitors vessel activity using advanced tools like the Windward App, SCG acts on this intelligence to conduct inspections and address infractions. The lack of patrol vessels for agencies like the Seychelles Maritime Safety Authority (SMSA) has further emphasized the Coast Guard's importance in filling enforcement gaps.

Private entities, such as the Save Our Seas Foundation (SOSF) D'Arros Research Centre, have stepped in to provide critical resources, including offering vessels and accommodation for rotating Coast Guard officers to conduct enforcement in protected areas like D'Arros and St. Joseph MPAs. These partnerships illustrate how government-private collaborations can strengthen enforcement and surveillance efforts. Despite these synergies, the workshop discussions underscored the absence of a National Maritime Committee, which could unify stakeholders, formalize roles, and improve interagency coordination. Participants also noted the need for shared tools like drones and satellite imagery to enhance surveillance and reduce coverage gaps, as well as redundancies to ensure resilience in the system.

By building on these connections and addressing existing gaps, Seychelles can establish a robust, collaborative framework for marine spatial planning, balancing enforcement, monitoring, and resource management effectively.

4.0 Capacity-building plan

4.1 Introduction

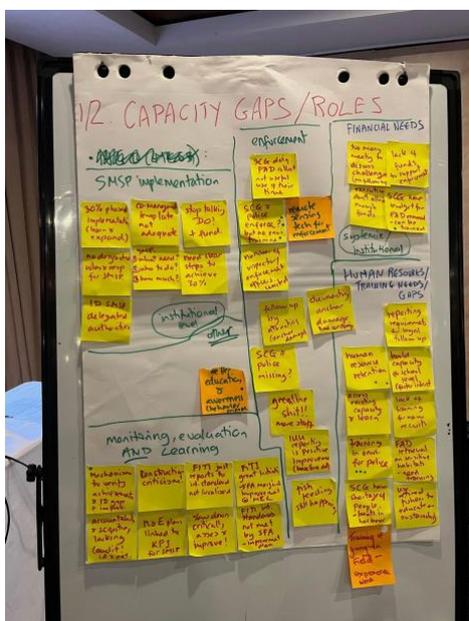
The Capacity-Building Plan (CBP) provides a structured, prioritised, and costed framework designed to address the systemic, institutional, and individual capacity gaps identified in this assessment. It incorporates the findings from interviews, the stakeholder workshop, and various prior capacity-building efforts and evaluations. The objective is to outline practical measures that meet the specific needs of the entities involved in the SMSP.

This plan is aligned with the **Terms of Reference (ToR)**, which call for a costed, prioritised program of professional staff training and skills development, including short courses and in-service opportunities. It must also identify technical and professional extension support services for the authorities and partners responsible for managing marine protection areas or other relevant organizations.

The CBP is organized around the **three capacity levels**. At the systemic level, it addresses governance frameworks, policies, and interagency coordination. At the institutional level, it focuses on organisational efficiency, infrastructure, and resource mobilisation. At the individual level, it targets skills development and professional training necessary to bolster the workforce.

The CBP also acknowledges the findings from the recent work of Burt et al. (2021), which identified the most prevalent barriers to effective conservation, including limited capacity, lack of government coordination, and insufficient resources. This report highlights how these challenges are interlinked and require tailored solutions across all three capacity levels.

Resource mobilisation, as used throughout this plan, refers to securing the financial, human, and technical resources needed to implement and sustain the SMSP. This can include fundraising, grant writing, public-private partnerships, and sustainable financing mechanisms. It also means making more effective use of existing infrastructure and personnel to meet national marine conservation goals efficiently.



Capacity building and staff training are closely related but distinct. Capacity building improves an organizations or system’s ability to fulfil its mandate, often requiring new staff, equipment upgrades, or sustainable procedures for coordination and resource management. Staff training concentrates on the skills and knowledge of existing employees, ensuring they can effectively handle enforcement, monitoring, data analysis, or stakeholder engagement. Both processes often overlap; for instance, GIS or enforcement training for staff may require hiring additional personnel to address workload gaps in remote areas.

The methodology for the CBP stems from interviews with stakeholders and a workshop where participants provided feedback on capacity gaps at each level. This

categorisation was refined during workshop discussions based on stakeholder priorities and practical constraints. Estimated costs draw on historical data from Blue Economy and GEF7 projects, along with stakeholder inputs. Examples include facilitator fees, travel expenses, and references to similar training in the region. Some figures (e.g., advanced GIS training) are approximated using regional benchmarks, as actual costs may be higher for comprehensive courses or multi-year programs.

Through this blend of structured planning, consultation, and cost estimation, the CBP aims to provide clear, actionable guidance for enhancing the capacity of agencies and individuals entrusted with implementing the SMSP. Where synergy or overlapping responsibilities exist (e.g., for maritime surveillance), the plan highlights how different agencies can collaborate, thus avoiding duplication while ensuring a deliberate redundancy that strengthens the national maritime safety and security system.

The SPGA has also been identified as a key stakeholder requiring targeted capacity-building actions. Given its mandate to manage pre-SMSP MPAs, the SPGA's training and resource needs (such as ranger training, ecological monitoring, and enforcement tools) have been incorporated into the relevant sections of this plan. Additionally, specific capacity-building programs are recommended for MACCE, the lead entity responsible for SMSP implementation, to ensure its ability to fulfil its mandate effectively.

4.2 Systemic Capacity-Building Needs and Actions

Entity or Stakeholder	Capacity Gap	Proposed Action	Delivery Mechanism	Timeline	Estimated Cost (USD)
MSP Unit / Future SOA	Lack of governance framework and inter-agency coordination.	Training workshops on ocean governance and multi-stakeholder coordination for MSP Unit and SOA staff. This is covered under the GOS-GEF-UNDP Blue Economy Project (Output 1.1.1).	In-person training (Blue Economy Project Output 1.1.1)	Short-term (2025)	Already budgeted (Approx. cost allocated: USD 39,200 in the BE Project)
	Limited capacity in resource mobilisation.	Workshops in resource mobilisation and proposal writing targeting future SOA staff tasked with securing sustainable funding for SMSP. Also included in the Blue Economy Project (Output 1.1.1).	Workshops under GOS-GEF-UNDP BE Project.	Short-term (2025)	Already budgeted (Approx. cost allocated: USD 10,000 in the BE Project)
Management Committees	Limited clarity on roles and responsibilities.	Capacity-building workshops to define operational mandates and improve collaboration among	Stakeholder workshops (facilitated by MSP Unit).	Medium-term (2025)	\$50,000

Entity or Stakeholder	Capacity Gap	Proposed Action	Delivery Mechanism	Timeline	Estimated Cost (USD)
		committee members overseeing SMSP zones.			
All Entities	Lack of standardised data-sharing protocols.	Develop a cross-agency data-sharing framework and train IT personnel to implement it. This will enhance coordination for monitoring and enforcement.	Training via technical support.	Medium-term (2025–2026)	\$30,000
Government Entities	Limited legislative and policy support for SMSP implementation.	Training in legislative drafting to ensure updated MPA regulations and compliance mechanisms.	Legal training workshops.	Short-term (2025)	\$40,000
SPGA	Alignment of pre-SMSP MPAs with SMSP objectives.	Training in legislative drafting and regulatory updates for policy and compliance alignment.	Stakeholder workshops.	Medium-term (2025)	\$20,000

Notes on Systemic Costs:

The costs (USD 39,200 and USD 10,000) for the MSP Unit / SOA are already budgeted under the GOS-GEF-UNDP Blue Economy Project (Output 1.1.1). This covers consultant fees, workshops, and exercises specifically allocated to ocean governance, inter-agency coordination, and resource-mobilisation training. The \$50,000, \$30,000, \$40,000, and \$20,000 for SPGA listed for Management Committees, All Entities, Government Entities, and SPGA

4.3 Institutional Capacity-Building Needs and Actions

Entity or Stakeholder	Capacity Gap	Proposed Action	Delivery Mechanism	Timeline	Estimated Cost (USD)
Seychelles Coast Guard	Limited MCS capacity and patrol enforcement training.	Hands-on training for SCG staff in VMS and AIS to enhance their enforcement capabilities in SMSP Zones.	On-site, hands-on enforcement training.	Medium-term (2025–2026)	\$75,000
	Insufficient staffing and equipment for surveillance.	Recruit additional personnel and procure patrol boats to strengthen SCG's enforcement capacity in remote MPAs.	Multi-donor resource mobilisation.	Long-term (2026–2028)	TBD

Entity or Stakeholder	Capacity Gap	Proposed Action	Delivery Mechanism	Timeline	Estimated Cost (USD)
Seychelles Fisheries Authority (SFA)	Limited hydrography and fisheries stock assessment capacity.	Short technical courses on hydrography and fisheries management tailored to SFA staff responsible for MPA compliance and sustainable fisheries.	Short technical courses/workshops.	Medium-term (2025)	\$60,000
NISCC	Limited technical expertise in maritime data analysis.	Advanced technical training for NISCC staff in vessel tracking and maritime intelligence systems to enhance their data analysis capabilities.	Hybrid online/in-person training.	Short-term (2025)	\$50,000
NGOs (ICS, MCSS, SIF)	Gaps in monitoring and reporting infrastructure.	Field-based training for NGO staff in SMART tools, ecological monitoring, and reporting to improve MPA management effectiveness.	Field-based training and online platforms.	Medium-term (2025–2026)	\$65,000
IDC	Need for infrastructure and resource management support.	Capacity-building programs for IDC staff to oversee large-scale Zone 2 MPAs, focusing on resource management and operational planning.	To be identified in follow-up discussions.	Long-term (2026)	TBD
Seychelles Parks and Gardens Authority (SPGA)	Insufficient tools and enforcement capacity for MPAs.	Training for rangers in GPS, drones, and enforcement protocols; upgrades to monitoring equipment (e.g., drones, GPS).	On-site workshops and field sessions.	Medium-term (2025–2026)	\$80,000

Notes on Institutional Costs:

None of these institutional costs are explicitly allocated in the GOS-GEF-UNDP Blue Economy Project budget lines. For the Seychelles Coast Guard (SCG), some partial coverage might be found under multi-agency training in the Blue Economy Project. Thus, \$75,000 for SCG enforcement training, \$60,000 for SFA technical courses, \$50,000 for NISCC data training, \$65,000 for NGO capacity, and \$80,000 for SPGA monitoring and enforcement training and equipment upgrades remain external estimates that would need new or supplemental funding. Total estimated costs for institutional needs now amount to \$330,000, excluding costs categorized as TBD.

4.4 Individual Capacity-Building Needs and Actions

Entity or Stakeholder	Capacity Gap	Proposed Action	Delivery Mechanism	Timeline	Estimated Cost (USD)
MSP Unit Staff	Need for advanced GIS and data management skills.	Advanced GIS training (ArcGIS), targeting MSP Unit staff responsible for spatial planning and data reporting in SMSP implementation. Introductory GIS training (ArcGIS), targeting MSP Unit staff responsible for spatial planning and data reporting in SMSP implementation. Clarification: Advanced GIS training requires higher costs and extended timelines beyond this plan’s scope.	Online and hands-on training (TNC, BNA).	Short-term (2025)	\$45,000
Management Committees	Lack of stakeholder engagement skills.	Workshops in conflict resolution and stakeholder communication for committee members managing SMSP zones.	Workshops facilitated by NGOs/partners.	Medium-term (2025–2026)	\$35,000
SFA, NGOs, SCG	Limited training in enforcement and monitoring tools.	Training in SMART tools and ecological monitoring for staff tasked with MPA surveillance and biodiversity assessments.	Field-based workshops with international trainers.	Medium-term (2025–2026)	\$70,000
Seychelles Coast Guard	Limited expertise in marine	Legal training workshops for SCG officers focusing on	Online and in-person (Blue	Short-term (2025)	Already budgeted

Entity or Stakeholder	Capacity Gap	Proposed Action	Delivery Mechanism	Timeline	Estimated Cost (USD)
	environmental law.	international and national regulations relevant to SMSP enforcement.	Economy Output 1.1.4).		<i>(Approx. cost indicated: USD 50,800 in the BE Project)</i>
IDC/Outer Islands Staff	Technical knowledge gaps for managing large outer island MPAs.	Tailored training programs for IDC staff in biosecurity, MPA management, and patrol operations.	Future consultation to design targeted training.	Long-term (2026–2028)	TBD
Seychelles Parks and Gardens Authority (SPGA)	Gaps in ranger skills for monitoring and enforcement.	Training in conflict resolution, ecological monitoring, and GIS for SPGA rangers managing MPAs.	Field-based workshops with international trainers.	Medium-term (2025–2026)	\$40,000

Notes on Individual Costs:

The USD 45,000 for the MSP Unit’s GIS and data management training does not appear in the Blue Economy Project, so it remains an external estimate. The Seychelles Coast Guard’s marine environmental law training references the Blue Economy Project (Output 1.1.4) at a cost of USD 50,800 in consultant and workshop fees, covering multiple agencies and environmental crime prosecutions. The USD 35,000 for Management Committees’ stakeholder engagement workshops, USD 70,000 for training in enforcement and monitoring tools, and USD 90,000 for SPGA training in visitor interaction, monitoring, and conservation are external estimates requiring additional funding sources. Total estimated costs for individual capacity-building needs now amount to USD 290,800, excluding costs categorized as TBD.

4.5 Implementation Summary Table

Priority Area	Proposed Action	Lead Entity	Cost (USD)	Timeline
Resource mobilisation	Training staff in resource mobilisation and proposal development to address funding gaps for MPA management.	MSP Unit, MACCE, NGOs	\$30,000	2025
Enhancing governance and coordination	Ocean governance training to strengthen inter-agency collaboration and decision-making roles in SMSP implementation.	MSP Unit/Blue Economy Project	\$50,000	2025

Priority Area	Proposed Action	Lead Entity	Cost (USD)	Timeline
Building enforcement capacity	Training SCG staff in MCS tools and surveillance techniques to enhance enforcement in MPAs.	SCG/SFA	\$85,000	2025–2026
Strengthening technical monitoring skills	Advanced GIS and ecological monitoring training to improve reporting and biodiversity assessments.	MSP Unit/NGOs (ICS, MCSS, SIF)	\$165,000	2025–2026
Stakeholder engagement	Conflict resolution and stakeholder communication training for committees managing SMSP zones.	Management Committees/NGOs	\$125,000	2025–2026

The \$455,000 indicated here reflects a subset of the actions enumerated in Sections 4.2 through 4.4. When combined, the systemic, institutional, and individual needs total \$660,000 (excluding already-budgeted items under the Blue Economy Project). Additional funding may still be required to address needs not specifically covered by the BE Project or other current initiatives.

4.6 Additional Recommendations

The preceding sections have focused on core capacity-building needs, yet there remain supplementary opportunities to strengthen SMSP implementation further. These additional recommendations highlight peer-to-peer learning, the adoption of advanced technologies for monitoring and surveillance, and expanded professional development possibilities for staff at various agencies.



One effective strategy is the integration of peer-to-peer learning and professional training programs. WIO-COMPAS, or the Western Indian Ocean Certification of Marine Protected Area Professionals, has proven valuable for practitioners in Seychelles, particularly those at the Seychelles Parks and Gardens Authority (SPGA), which manages a significant portion of Seychelles' protected areas. Staff who have participated in WIO-COMPAS recall improvements in ecosystem-based management, monitoring, and leadership. The program charges participation fees ranging from approximately USD 2,500 to 3,500 per participant, based on certification level and the availability of scholarships, and more details are available through the WIO-COMPAS website. Key personnel from SPGA, the MSP Unit, SFA, the Seychelles Coast Guard (SCG), MACCE, and relevant NGOs could benefit from seeking professional certification in protected area management through WIO-COMPAS, thus reinforcing both the systemic and individual aspects of capacity development.

A second recommendation involves the possible reintroduction and rollout of SMART (Spatial Monitoring and Reporting Tool) across Zones 1 and 2, targeting enforcement and monitoring teams who can benefit from more data-driven management. SMART is a widely used open-source software for protected area monitoring, although its status in Seychelles has been unclear since initial training provided by an external expert. Stakeholders have cautioned that any renewed effort to adopt this technology must include an assessment of data-sharing risks and legal applicability, taking into account concerns raised by the Coast Guard and the Regional Coordination Operations Center (RCOC). Nevertheless, where successfully implemented in other regions, SMART has proved effective in real-time collection, analysis, and reporting of biodiversity and enforcement data. Field training would be necessary for patrol staff, while more advanced technical sessions would be required for GIS and IT specialists. Estimated costs for a pilot project in Zones 1 and 2 now range between USD 60,000 and 80,000, covering software deployment, equipment such as tablets or GPS units, and staff training.

Recruitment and retention challenges need to be addressed holistically to sustain the benefits of capacity-building initiatives. The Burt et al. (2021) study identified staffing deficits, high turnover, and limited incentives as recurring barriers to effective conservation in Seychelles. Solutions should include competitive salaries, structured career progression opportunities, and wellness programs. Additionally, targeted funding for recurrent budgets is essential to address staffing gaps across agencies, particularly in areas where trained personnel are in short supply.

Another opportunity lies in exploring new technologies for surveillance and data management, including drones for aerial observation, satellite-based monitoring tools such as Skylight, and automated data systems to enhance vessel tracking. The practical advantages of these technologies center on cost-effectiveness and scalability, particularly when managing remote areas or large-scale Marine Protection Areas. Before integrating such systems into regular operations, the staff at the National Information Sharing and Coordination Centre (NISCC), SCG, and SFA would need targeted training in drone operation, satellite image analysis, and software integration. Initial setup costs may range between USD 120,000 and 170,000, depending on the scope of the effort, the inclusion of specialized hardware, and the training required.

Additionally, MACCE, as the lead entity responsible for critical SMSP implementation components, has no targeted capacity-building efforts currently planned. This gap must be addressed to ensure that MACCE can effectively lead initiatives such as policy development, interagency coordination, and oversight. Structured training programs, combined with resource allocation, are essential to

equip MACCE with the skills and tools needed to meet its responsibilities effectively. Stakeholders emphasized during the assessment that MACCE's leadership is pivotal for SMSP success, necessitating focused investments in its institutional capacity.

It is also worthwhile encouraging SMSP stakeholders to explore online learning opportunities, especially regarding the Kunming-Montreal Global Biodiversity Framework (GBF) Target 3. Free courses offered by the Learning for Nature platform are intended as optional resources and complement, rather than replace, essential hands-on training. These virtual modules can help participants from the MSP Unit, SPGA, SFA, SCG, MACCE, and NGOs to develop foundational knowledge in biodiversity conservation, marine spatial planning, and stakeholder engagement. This form of e-learning is particularly helpful for agencies that have adequate staffing to release personnel for self-paced study without disrupting regular operations.

Finally, creating stronger connections between science and practice is critical for addressing conservation challenges in Seychelles. Developing a National Research Strategy aligned with SMSP objectives, as suggested by Burt et al. (2021), can bridge the gap between research and actionable management. This strategy should include mentorship programs, collaborative projects with academic institutions, and a government-led symposium for disseminating research findings. Improved accountability mechanisms for conservation outcomes, including transparent reporting of funding allocation and project impacts, can further strengthen stakeholder confidence and public engagement.

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Annex 1: List of key Stakeholders

#	Designated Authorities/ Partners	Role	Mandate (MPA Context)	Interviewed
1	Ministry of Agriculture, Climate Change, and Environment (MACCE)	PA Management, Legislative, and Policy Overview	Legal and enforcement mandates under the Nature Reserve Conservancy Act; co-management agreements for MPAs.	Yes
2	Bird Island Owner	PA Management	Potential management role for the Zone 1 MPA around Bird Island. The entity is yet to put a team together and develop a management plan for the area.	No
3	Denis Private Island & Green Island Foundation (GIF)	PA Management	(Co)-management of Denis Island (Marine) Sustainable Use Area.	Yes
4	Island Conservation Society (ICS)	PA Management	Management of Aride Island Special Nature Reserve; Silhouette Island Marine National Park (in partnership with SPGA); and research/conservation centers in outer islands managed by IDC.	Yes
5	Islands Development Company (IDC)	Overarching Role and PA Management	Oversees and manages islands within Zone 1 and Zone 2 MPAs, supporting conservation efforts through partnerships such as ICS. A critical stakeholder in outer island management.	No
6	Ministry of Fisheries and Blue Economy (MoFBE)	Legislative and Policy Overview	Responsible for fisheries management, policy development, and co-management roles in SMSP Zone 2 MPAs.	Yes
7	Ministry of Transport (MoT)	Legislative and Policy Overview	Responsible for shipping activities within large Zone 2 MPAs, ensuring compliance with SMSP regulations.	No
8	Marine Spatial Plan (MSP) Unit	Overarching Role	Interim implementation and oversight of SMSP, to transition into the Seychelles Ocean Authority (SOA).	Yes
9	National Information Sharing and Coordination Centre (NISCC)	Overarching Role	Maritime safety, vessel monitoring, and intelligence reporting to support SMSP enforcement.	Yes
10	Nature Seychelles	PA Management	Management of Cousin Special Nature Reserve, including monitoring, enforcement, and community engagement.	Yes

#	Designated Authorities/ Partners	Role	Mandate (MPA Context)	Interviewed
11	Save Our Seas Foundation - D'Arros Research Centre (SOSF-DRC)	PA Management	(Co)-management of D'Arros Atoll (Zone 1) and St Joseph (Zone 2). Focus on research, monitoring, and conservation.	Yes
12	Seychelles Coastguard (SCG)	Overarching Role	National security, enforcement of SMSP regulations, MCS, and illegal activity prevention within Seychelles' EEZ.	Yes
13	Seychelles Fishing Authority (SFA)	Overarching Role	Fisheries management and coordination within SMSP Zone 2 MPAs.	Yes
14	Seychelles Islands Foundation (SIF)	PA Management	Management of Aldabra Special Reserve, biosecurity, enforcement, and ecological monitoring.	Yes
15	Seychelles Maritime Safety Authority (SMSA)	Overarching Role	Ensures maritime safety, security, and pollution prevention within SMSP areas.	No
16	Seychelles Parks and Gardens Authority (SPGA)	PA Management	Management of pre-SMSP MPAs, including National Parks like Curieuse and Baie Ternay.	No
17	Marine Conservation Society Seychelles (MCSS)	PA Management	Co-management of Seasonal Protected Area South Mahé.	Yes

Annex 2: Interview and Survey Questions

The following structured questions were used during interviews and surveys conducted for the capacity needs assessment of stakeholders involved in the Seychelles Marine Spatial Plan (SMSP). These questions were designed to assess the capacities of institutions and individuals at systemic, institutional, and individual levels.

1. General

- A. Date
- B. Person Consulted
- C. Number of Staff
- D. MPA(s) Managing (including category)
- E. General mandate, roles, and responsibilities within the SMSP (specific role (See Q8 - including which AA the organisation is responsible for)
- F. Previous participation in capacity needs assessments (e.g. GEF-UNDP MPA project in 2014)
- G. Previous participation in capacity needs assessments (GEF-7 Blue Economy project in 2019)
- H. Past MPA management effectiveness assessments (e.g. METT, World Heritage Conservation Outlook)
- I. Recent participation in training or capacity building activities. What were these? Are the individuals who took part still in the same roles?
- J. Plans for future capacity building activities. What? (e.g. training, workshops, in-service training etc). When?
- K. Management plan for the area (if the organisation is responsible for managing an area)

2.1 Policy and legislation - for organisation with Policy mandate

2.1.1 Policy Development

- 1. Existing Capacity (Descriptive)
- 2. Is Capacity Adequate (Y/N)
- 3. Capacity Gaps (Descriptive)
- 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.1.2 Legal expertise

- 1. Existing Capacity (Descriptive)
- 2. Is Capacity Adequate (Y/N)
- 3. Capacity Gaps (Descriptive)
- 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.1.3 Development of funding and resource mobilisation strategies and plans

- 1. Existing Capacity (Descriptive)
- 2. Is Capacity Adequate (Y/N)
- 3. Capacity Gaps (Descriptive)
- 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.1.4 Project proposal preparation

- 1. Existing Capacity (Descriptive)

2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.2 Management – for organisations with management mandate

2.2.1 Development (and subsequent periodic review) of area management plans

1. Existing Capacity (Descriptive)
2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.2.2 Stakeholder engagement and dispute resolution

1. Existing Capacity (Descriptive)
2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.2.3 Coordination and liaison with partners (e.g. enforcement agencies, research institutions)

1. Existing Capacity (Descriptive)
2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.2.4 Management of Allowable Activities

8a. Aquaculture activities (Fig. 6)	1. Existing Capacity (Descriptive)
a. Aquaculture Development Zone	2. Is Capacity Adequate (Y/N)
b. Aquaculture Inshore Zone	3. Capacity Gaps (Descriptive)
c. Aquaculture Land-based Zone	4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
d. Aquaculture Offshore Zone	
8b. Industrial fishing (Fig. 7)	1. Existing Capacity (Descriptive)
a. Demersal Trawl Fishing	2. Is Capacity Adequate (Y/N)
b. Industrial Pelagic Long line	3. Capacity Gaps (Descriptive)
c. Industrial Purse Seine (free school)	4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
d. Industrial Purse Seine (supply vessel)	
8c. Semi-industrial fishing (Fig. 8)	1. Existing Capacity (Descriptive)
a. Artisanal fishing (multiple gear types)	2. Is Capacity Adequate (Y/N)
b. Semi-industrial hand-gathering	3. Capacity Gaps (Descriptive)
c. Semi-industrial (non-pelagic) line-fishing	4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
d. Semi-industrial (pelagic long-line)	
8d. Recreational and subsistence fishing (Fig. 9)	1. Existing Capacity (Descriptive)
a. Big Game Fishing	2. Is Capacity Adequate (Y/N)
b. Fly fishing (Blue water)	3. Capacity Gaps (Descriptive)
c. Fly fishing (lagoon)	4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
d. Sport fishing (multiple activities)	
e. Recreational fishing	
f. Subsistence fishing	
8e. Shipping (Fig. 10)	1. Existing Capacity (Descriptive)

a. Ballast and Bilge Dumping b. Bunkering at sea c. Commercial shipping d. Ferries and transportation e. Fisheries Patrols and Surveillance	2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8f. Renewable energy (Fig. 11) a. Deep water thermal b. Solar (marine) c. Tidal d. Offshore wind e. Wave	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8g. Infrastructure (Fig. 12-13) a. Ports, marinas, wharfs and jetties b. Desalination (boat-based) c. Desalination (land-based) a. Disposal, dumping, dredge spoils b. Dredging (coastal) c. Reclamation d. Underwater cables	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8h. non-renewables (14-15) a. Bioprospecting development b. Deep Sea mining c. Sand mining d. Methane gas exploration, development, production a. Petroleum geophysical surveys, exploration b. Petroleum exploration, drilling c. Petroleum development, production, extraction d. Petroleum shipping, during extraction	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8i. Tourism (Fig. 16-17) a. Anchorages and mooring buoys b. Floating structures c. Tourism accommodation, marine d. Tourism accommodation, terrestrial a. Cruise ships b. Marine charters, licensed hire craft c. Motorised activities d. non-motorised activities	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8j. Research (Fig. 18) a. Bioprospecting research b. Scientific geophysical surveys, research c. Scientific research and monitoring d. Hydrographic surveys	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.2.5 Communications, education, and awareness programmes

1. Existing Capacity (Descriptive)
2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.2.6 Active habitat and species management (e.g. coral reef restoration)

1. Existing Capacity (Descriptive)
2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.2.7 Infrastructure and equipment

1. Existing Capacity (Descriptive)
2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.2.8 Human resources management skills

1. Existing Capacity (Descriptive)
2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.2.9 Data collection for research and monitoring

1. Existing Capacity (Descriptive)
2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.2.10 Data analysis and report writing

1. Existing Capacity (Descriptive)
2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.2.7 Building resilience to climate change

1. Existing Capacity (Descriptive)
2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.3 Surveillance – for organisations with surveillance mandate

2.3.1 Developing PA surveillance and enforcement strategies and plans

1. Existing Capacity (Descriptive)
2. Is Capacity Adequate (Y/N)
3. Capacity Gaps (Descriptive)
4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.3.2 Personnel for surveillance and enforcement of relevant Allowable Activities

- | | |
|--|---|
| <p>8a. Aquaculture activities (Fig. 6)</p> <p>a. Aquaculture Development Zone</p> <p>b. Aquaculture Inshore Zone</p> <p>c. Aquaculture Land-based Zone</p> <p>d. Aquaculture Offshore Zone</p> | <ol style="list-style-type: none"> 1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure) |
| <p>8b. Industrial fishing (Fig. 7)</p> <p>a. Demersal Trawl Fishing</p> | <ol style="list-style-type: none"> 1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) |

b. Industrial Pelagic Long line c. Industrial Purse Seine (free school) d. Industrial Purse Seine (supply vessel)	3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8c. Semi-industrial fishing (Fig. 8) a. Artisanal fishing (multiple gear types) b. Semi-industrial hand-gathering c. Semi-industrial (non-pelagic) line-fishing d. Semi-industrial (pelagic long-line)	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8d. Recreational and subsistence fishing (Fig. 9) a. Big Game Fishing b. Fly fishing (Blue water) c. Fly fishing (lagoon) d. Sport fishing (multiple activities) e. Recreational fishing f. Subsistence fishing	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8e. Shipping (Fig. 10) a. Ballast and Bilge Dumping b. Bunkering at sea c. Commercial shipping d. Ferries and transportation e. Fisheries Patrols and Surveillance	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8f. Renewable energy (Fig. 11) a. Deep water thermal b. Solar (marine) c. Tidal d. Offshore wind e. Wave	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8g. Infrastructure (Fig. 12-13) a. Ports, marinas, wharfs and jetties b. Desalination (boat-based) c. Desalination (land-based) a. Disposal, dumping, dredge spoils b. Dredging (coastal) c. Reclamation d. Underwater cables	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8h. Non-renewables (14-15) a. Bioprospecting development b. Deep sea mining c. Sand mining d. Methane gas exploration, development, production a. Petroleum geophysical surveys, exploration b. Petroleum exploration, drilling c. Petroleum development, production, extraction d. Petroleum shipping, during extraction	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8i. Tourism (Fig. 16-17) a. Anchorages and mooring buoys b. Floating structures c. Tourism accommodation, marine d. Tourism accommodation, terrestrial a. Cruise ships b. Marine charters, licensed hire craft c. Motorised activities d. non-motorised activities	1. Existing Capacity (Descriptive) 2. Is Capacity Adequate (Y/N) 3. Capacity Gaps (Descriptive) 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)
8j. Research (Fig. 18)	1. Existing Capacity (Descriptive)

- a. Bioprospecting research
- b. Scientific geophysical surveys, research
- c. Scientific research and monitoring
- d. Hydrographic surveys

- 2. Is Capacity Adequate (Y/N)
- 3. Capacity Gaps (Descriptive)
- 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.3.3 Equipment (including remote technology, SMART technology, phone apps, etc.)

- 1. Existing Capacity (Descriptive)
- 2. Is Capacity Adequate (Y/N)
- 3. Capacity Gaps (Descriptive)
- 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

2.3.4 Skills for equipment maintenance

- 1. Existing Capacity (Descriptive)
- 2. Is Capacity Adequate (Y/N)
- 3. Capacity Gaps (Descriptive)
- 4. Recommendations to Fill Gaps (training, funding, equipment, infrastructure)

Annex 3: Results of the interviews with each Institution

Organisation	Capacity Gaps
Ministry of Agriculture Climate Change and Environment (MACCE)	Limited capacity for developing and overseeing legal compliance frameworks. Insufficient funding and staffing for enforcement coordination.
Marine Spatial Plan (MSP) Unit	Need for governance training and dedicated legal support. Challenges in inter-agency communication and technical expertise (e.g., GIS, monitoring).
Seychelles Coast Guard (SCG)	Insufficient staffing for patrols and vessel operations. Limited technical training in maritime law, data analysis, and enforcement strategies. Resource shortages for patrol boats, drones, and other technologies.
National Information Sharing and Coordination Centre (NISCC)	Gaps in maritime data analysis and intelligence capabilities. Inadequate infrastructure for satellite and drone monitoring and communication systems.
Seychelles Fishing Authority (SFA)	Insufficient capacity for fisheries stock assessments and scientific expertise. Need for enforcement collaboration with SCG and MACCE.
Denis Private Island (DPI) & Green Island Foundation (GIF)	Lack of Standard Operating Procedures (SOPs) for enforcement. Limited infrastructure for monitoring and communication. Resource mobilisation challenges.
Ministry of Fisheries and Blue Economy (MoFBE)	High staff turnover and insufficient expertise in resource mobilisation. Stakeholder engagement and communication gaps. Co-management agreements need clearer roles and responsibilities.
Nature Seychelles	Limited capacity for sustainable funding mechanisms and technical training in monitoring and reporting. Advanced community engagement and resource mobilisation needed.
Save Our Seas Foundation – D’Arros Research Centre (SOSF-DRC)	Insufficient technical capacity for advanced research and data analysis. Limited public outreach capabilities to increase conservation awareness.
Seychelles Islands Foundation (SIF)	High staff turnover affecting project continuity. Resource shortages and gaps in technical expertise for habitat restoration and ecological monitoring.
Marine Conservation Society Seychelles (MCSS)	Staffing challenges for monitoring and enforcement. Limited capacity for long-term data management and public communication. Funding gaps hinder conservation efforts.
Island Conservation Society (ICS)	Limited resources for monitoring and enforcement. Gaps in training for conflict resolution, data management, and drone operations. Seasonal enforcement support needed for poaching and illegal activities.
Seychelles Maritime Safety Authority (SMSA)	Insufficient staffing for enforcement and maritime regulation roles. Need for training in maritime regulations and navigation technology. No centralized committee for maritime stakeholder coordination.
Blue Economy Project	Gaps in governance frameworks, interagency collaboration, and funding mechanisms. Opportunities for capacity-building expansion exist.

Annex 4: Summary of Preliminary Findings from the Stakeholder Workshop

Introduction

The Stakeholder Workshop, held on November 6, 2024, was a key milestone in the Capacity Needs Assessment process for the Seychelles Marine Spatial Plan (SMSP). It brought together representatives from government agencies, NGOs, and private sector stakeholders to validate preliminary findings, identify capacity gaps, and propose actionable recommendations for the Capacity Development Plan. The workshop focused on systemic, institutional, and individual capacity needs and provided an interactive platform for collaboration.

Preliminary Findings

The workshop validated findings from pre-workshop interviews and expanded on key themes. Below is a summary of the validated and additional findings discussed during the workshop:

1. Systemic-Level Gaps:

- **Centralized Governance:** The absence of a centralized governing body, such as the Seychelles Ocean Authority (SOA), was identified as a significant barrier. Participants emphasized the need for such an authority to streamline SMSP coordination, policy implementation, and stakeholder alignment.
- **Sustainable Funding:** Stakeholders highlighted the lack of dedicated, long-term financial mechanisms, proposing solutions such as a revolving fund, public-private partnerships, and international grants.
- **Interagency Coordination:** Overlapping mandates and conflicting policies were flagged as challenges, particularly in aligning fisheries management plans with SMSP zoning requirements.
- **Data Management:** A centralized database for SMSP-related data was recommended to address gaps in data sharing, accessibility, and evidence-based decision-making.

2. Institutional-Level Gaps:

- **Technology and Infrastructure:** Outdated Monitoring, Control, and Surveillance (MCS) technology, including the lack of drones and real-time monitoring tools, limits enforcement and data collection.
- **Human Resources:** High turnover and insufficient staffing in remote areas were noted as critical challenges, with stakeholders recommending career development pathways, rotation strategies, and mentorship programs.
- **Legal and Bureaucratic Barriers:** Delays in regulatory approvals and inefficiencies in enforcement processes were highlighted as obstacles to SMSP implementation.

3. Individual-Level Gaps:

- **Specialized Training:** Significant gaps in technical skills, such as GIS, data analysis, enforcement, and environmental law, were identified. Participants stressed the importance of targeted training programs and a dedicated budget for capacity-building initiatives.

- **Public Outreach and Communication:** Limited capacity for community engagement and awareness-building was flagged as a barrier to fostering public support for SMSP goals.
- **Knowledge Retention:** The high turnover rate in remote areas disrupts institutional memory, underscoring the need for mentorship programs to ensure knowledge transfer and skill retention.

Key Insights from the Workshop

The workshop discussions expanded on the preliminary findings and provided actionable insights, including:

- **Centralized Governance:** Establishing the Seychelles Ocean Authority (SOA) as an independent governing body was reaffirmed as a top priority to enhance SMSP coordination and accountability.
- **Resource Mobilization:** A revolving fund and diversified funding strategies were proposed to address financial gaps and ensure long-term sustainability.
- **Enhanced Communication:** Stakeholders emphasized integrating marine conservation themes into existing educational programs, such as the Eco-Schools initiative, to foster a culture of stewardship among younger generations.
- **Tailored Capacity-Building:** The need for a customized Management Effectiveness Tracking Tool (METT) for SMSP was discussed to better track implementation progress and align with Seychelles' unique context.

Next Steps

1. The feedback and insights gathered during the workshop will be integrated into the Capacity Development Plan. Key next steps include:
Refining the Capacity Development Plan based on stakeholder input.
2. **Incorporating detailed implementation timelines and budgets** for priority actions.
3. **Developing a robust Monitoring and Evaluation (M&E) framework** to track capacity-building progress.
4. **Continuing stakeholder engagement** to maintain alignment with SMSP goals and evolving need.