



United Nations

Department of
Economic and
Social Affairs



Small Island Developing States

**Gaps, Challenges and
Constraints in Means of
Implementing Biodiversity
Objectives**

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1 GRULAC stands for Group of Latin America and Caribbean Countries

2 SBSTTA stands for Subsidiary Body on Scientific, Technical and Technological Advice

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FOREWORD

The scientific community has recently revealed that planet Earth is currently undergoing its sixth mass biodiversity extinction, with over 260,000 of the 2 million known species estimated to have been wiped out over the last 500 years. Unlike previous mass extinctions caused by natural phenomenon, this extinction is attributed to human activities. Climate change, habitat destruction, pollution, and extractive industries account for more than 90% of biodiversity loss today.

Taking this into account, the Post-2020 Global Biodiversity Framework that will be adopted at the forthcoming 15th meeting of the Convention on Biological Diversity (CBD COP 15) is of paramount importance to redirect humanity's destructive course. However, the failure to fully meet the preceding Aichi Biodiversity Targets by their 2020 deadline, is a glaring reminder that deeds matter more than words.

With most of the global economy being reliant on natural resources for development, the need to urgently incorporate sustainability is evident. What most developing countries are lacking is the means of implementation to enable this, while balancing economic growth and social welfare. Small Island Developing States (SIDS) also face the disproportionate burdens of climate change and natural disasters, and inherent vulnerabilities have been exacerbated by the COVID-19

pandemic. Without adequate financing, capacity and technology support, this critical decade could trap SIDS in a negative spiral of decreased resilience and increased vulnerability.

While the Preamble to the Convention on Biological Diversity explicitly acknowledges the special circumstances of SIDS, existing instruments have not operationalized these provisions effectively. As a result, biodiversity targets in SIDS, including those under the SAMOA Pathway remain unfulfilled.

The Post-2020 Biodiversity Framework is a valuable opportunity to establish a dedicated capacity development plan for SIDS that catalyzes new investments to support implementation of the Framework, and avoid the pitfalls previously encountered. The Chair of AOSIS stands ready to support this initiative, including through the SIDS Coalition for Nature; an open-ended Coalition which will be coordinated by the Chair of AOSIS with the support of UN DESA, intended to provide political advocacy to ensure the SIDS specific biodiversity needs are met through provision of the required means of implementation.

This report, prepared by the United Nations Department of Economic and Social Affairs (UN DESA) in collaboration with the Secretariat of the CBD and in consultation with

CBD national focal point, is a useful tool to enable a more informed and effective approach to implementing the Post-2020 Global Biodiversity Framework, with a renewed focus on unlocking the necessary support for SIDS.



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EXECUTIVE SUMMARY

The upcoming international landmark UN framework: the new Post-2020 Global Biodiversity Framework is expected to be adopted at the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) during its forthcoming 15th meeting (CBD COP 15). In this context, as countries adopt a biodiversity framework as a stepping stone towards the 2050 Vision of “Living in harmony with nature”¹, it is essential to identify the shared challenges, gaps and constraints that have prevented small island developing states (henceforth SIDS) from meeting their biodiversity goals.

SIDS are repositories of some of the world’s most diverse and unique species and ecosystems. They have been identified as having “extraordinary marine and terrestrial biodiversity that in many cases is fundamental to their livelihoods and identity”². While all countries face challenges in meeting Aichi Biodiversity Targets, due to their unique vulnerabilities, SIDS face specific constraints which if left unaddressed can drastically impede their abilities to protect vital ecosystems and livelihoods, implement the Convention

on Biological Diversity (CBD) or meet Sustainable Development Goals. **At the frontline of numerous crises, SIDS’ vulnerabilities are widening the gap to means of implementation, a gap that is exacerbated by negative economic and social impacts from COVID-19.**

SIDS-specific common **development challenges** include³:

- Limited landmass, geographical isolation and spatial dispersion;
- Small populations;
- Vulnerability to climate change and natural disasters;
- Vulnerable ecosystems and high level of endemism;
- Strong dependence on trade, tourism and remittances;
- Undiversified economies, limited private sector, high debt-to-GDP ratio, susceptibility to global market fluctuations.

SIDS thus require strategic support to achieve their biodiversity targets and generate global environmental benefits. However, to move the needle forward on protecting global biodiversity, it is necessary to address SIDS’ abilities to access

and strengthen their **means of implementing** the Convention on Biological Diversity. Identifying common constraints shared by SIDS due to their unique characteristics, provides opportunity to address challenges more strategically, with a SIDS-perspective — taking into account extreme pressures on their natural environment and economies.

Objective

The objective of this report, supported by the United Nations Department of Economic and Social Affairs (UN DESA) and the Secretariat of the CBD, and in partnership and consultation with and for CBD country focal points, is to identify specific gaps, challenges, and constraints that SIDS face in the means of implementation to achieve biodiversity targets and conservation goals. In so doing, the report highlights the unique ways in which these gaps are experienced in the SIDS context to inform technical interventions, capacity support, advocacy tools and policy processes.

1 CBD. 2021. Preparations for the Post-2020 Biodiversity Framework. Available online at: cbd.int/conferences/post2020

2 Sustainable Development Knowledge Platform. SIDS Accelerated Modalities of Action (SAMOA) Pathway. Available online at: sustainabledevelopment.un.org/samoapathway.html

3 UN DESA. 2021. Supporting Informed Decision-Making, SDGs Implementation and Monitoring in SIDS Through Data Governance, Production, Dissemination and SIDS-SIDS Collaboration.

Means of Implementation

The 'Means of Implementation' is a useful lens through which to capture the gaps, constraints and challenges experienced by SIDS in meeting their biodiversity objectives, as it serves to articulate how SIDS can be supported for improved biodiversity conservation, particularly when ambitious targets are agreed to at the global level.

Structure of the Report

The report is divided in four sections:

- Section 1: Introduction; Purpose of the Report; Structure of the Report; Methodology
- Section 2: Elaboration on why SIDS are a special case for sustainable development; coverage on how SIDS are addressed in other international fora; details on the risks SIDS face which frame the constraints identified in Section 3
- Section 3: Contains the main analysis, discussion on constraints faced by SIDS relative to the means of implementation in the post-2020 biodiversity framework; provides country examples and references to other publications
- Section 4: Conclusions and lessons learned.

The executive summary will cover the key constraints identified relative to each means of implementation, as well as the lessons learned.

Why SIDS?

SIDS offer the ideal scenario for mainstreaming biodiversity into other sectors. In SIDS, there is no economy without biodiversity, there is no tourism or fisheries without nature. Working in one sector undoubtedly affects others due to geographic proximity and interconnectivity. SIDS are self-contained ecosystems with well-defined geographic limits.

- SIDS have unique environmental, social and economic

vulnerabilities which cannot be captured by income/GDP indicators alone. These vulnerabilities do not show up when assessing income, but create challenges for SIDS in terms of accessing concessional financing and official development assistance for biodiversity protection.

- SIDS offer unique opportunities to pilot and test biodiversity policies/initiatives and measure for impact because of their small size, and because biodiversity is crucial to key sectors.
- Investments in biodiversity protection have multiplier benefits in SIDS.
- Some SIDS are paving the way and piloting innovative ways of investing in biodiversity which are useful to explore and learn from for broader biodiversity financing.
- SIDS are windows for continental countries to learn from.
- SIDS differ from other islands in the level of access they have to means of implementation.
- SIDS have high levels of endemism; changes in ecosystems can have drastic effects and even lead to extinctions which makes supporting means of implementation for biodiversity protection all the more urgent.
- SIDS-specific language and programming is gaining momentum in international fora; alignment with other global processes can help reinforce SIDS-specific programming and offer opportunities for synergies.
- Addressing 'Means of Implementation' is a significant way of supporting SIDS to achieve their sustainability goals.
- Leadership in the UNFCCC processes have transformed the way in which SIDS engage, are perceived, and influence; lessons can be shared in the biodiversity context.
- Estimates indicate that SIDS are at least 35% more vulnerable to external economic and financial shocks than other developing countries (UNCTAD).
- SIDS are among the most impacted countries by the COVID-19 crisis; SIDS economies

are anticipated to contract more so than developing countries.

- Decreases in tourism, remittances, commodity prices, pose severe threats to the economy, debt levels and solvency; external shocks are experienced sharply in SIDS due to inability to absorb shocks.
- The cost of delivering development support is higher in SIDS than in less developed countries; interventions need to be strategic.

I. Financial Mechanisms and Resource Mobilization

Concessional Financing/ Project-Based Financing

SIDS are resourceful when it comes to mobilizing resources for their development, given how limited their economic base has historically been. However, concessional financing remains inadequate for biodiversity financing.

- SIDS have difficulty meeting eligibility criteria for grants due to middle-or high income country status.
- SIDS face challenges in mobilizing high levels of co-financing required by granting mechanisms.
- The Global Environment Facility (GEF) System of Transparent Allocation of Resources (STAR) allocations may not into account for the fact that SIDS have difficulty accessing other funds; STAR appears proportional, however LDCs may be able to attract other sources of funding which SIDS cannot.
- GEF Biodiversity Focal Area approach may not fund activities that are pertinent to SIDS biodiversity goals e.g. managing invasive alien species impact of non-native or agricultural related flora fauna; managing plastic waste pollution.
- Application/proposal for grants is challenging for countries with low human resources and data capacities; Lack of capacities exist in developing funding proposals.

- Growing complexities with funds' approval systems are not well understood and stress already limited human resources.
- Project management cost limitations in GEF projects (5% of project budget) do not take into account high costs for consultants, transportation, rent in SIDS.
- Low levels of private sector investment.
- Limited staff to apply for concessional financing and manage project funds.
- Project-based approaches are not creating the structural changes and capacities needed for biodiversity protection.
- Regional projects may strengthen regional institutions but do not necessarily demonstrate local-level results.
- Growing restrictions in donor funding challenges SIDS to use funds where most needed relative to biodiversity.
- Biodiversity research/study expeditions to SIDS do not sufficiently share co-benefits with countries themselves.
- Lack of coordination within government, and among multi-lateral partners does not allow SIDS to optimize on concessional funding.

Resource Mobilization

Impacts of the COVID-19 pandemic has strained already small and indebted economies. The following factors impact SIDS' abilities to mobilize resources for biodiversity protection. These include:

- High debt-to-GDP ratio
- Shrinking GDP
- Disaster-prone; SIDS do not recover from one disaster when another strikes. Mobilizing post-crisis financing is challenging especially with multiple disasters
- Lack of biodiversity data available that would justify financing biodiversity protection activities
- Incoherence with other fiscal policy instruments (e.g. incentives in agriculture, tourism development)

- Remoteness of SIDS
- Tax system that does not collect for environmental purposes
- Inter-sectoral competition for funds; more lucrative sectors such as tourism benefitting at the cost of biodiversity
- Small/limited private sector
- Lack of staff capacity to mobilize resources.

Innovations, Successes and Other Mechanisms for Mobilizing Resources in SIDS

Despite the constraints and gaps in leveraging funds for biodiversity protection to meet national targets, many SIDS have piloted and undertaken innovative initiatives to access resources. These include a variety of financial instruments and mechanisms:

- Debt-for-nature swaps
- Blue bonds
- Blue economy investments
- Partnerships to leverage private capital
- Private financing investments to be repaid by a percentage of future tax revenues
- Biodiversity protection as part of corporate social responsibility (CSR) initiatives
- Microcredit partners in sectors such as fisheries or eco-tourism
- Green fee schemes and biodiversity trust funds
- Non-resource-based incentives: e.g., biosphere certification.

Capacity-Building and Development

Capacity-building is a gap that is raised in virtually every area related to biodiversity conservation. The following sub-sections specify various areas of capacity-building.

(i) Capacity Gaps in Enforcement

These examples highlight that regardless of how well-developed governance regime may be, without capacity for enforcement, countries will encounter constraints to protect their biodiversity. Enforcement capacity gaps can be the result of:

- Resource challenges
- Shortage of staff
- Lack of awareness, understanding and value of biodiversity-relevant rules and regulations
- Political/social considerations and interests conflict with biodiversity interests
- Lack of training/skills
- Lack of equipment
- Lack of knowledge/data on what needs to be monitored, how and why.

(ii) Capacity Gaps in Environmental Governance

There are several constraints which limit effective environmental Governance in SIDS. These include:

- Lack of science-policy interface
- Lack of political awareness/interest in biodiversity issues compared to other key sectors (tourism, fisheries, mining)
- Out-migration of skilled staff
- A lack of paid staff to enforce/monitor
- Lack of governance infrastructure, equipment, patrolling capabilities
- Lack of community awareness and education on existing regulations
- Too many global regimes to report on.

(iii) Capacity Gaps in Conducting Public Awareness Activities

Numerous public awareness activities have been carried out within SIDS, but without assessment of what these have achieved, and what is needed to reinforce them. Some of the key capacity constraints that limit the effectiveness of public awareness activities include:

- Lack of centralized vision for activities
- Lack of measurement of results of awareness activities
- Disparate activities carried out by different actors and projects without coordination; Lack of central data collection and analysis capacity of what activities are carried out
- Lack of data to back up value

of biodiversity to make it a salient issue for public

- Lack of capacity of stakeholder organizations (financial, technical, administrative) to engage
- Digital divide, disparities in accessing information.

(iv) Capacity Gaps in Data Gathering

The lack of biodiversity data underpins many challenges facing SIDS such as mobilizing resources, building public awareness, monitoring for results, and reporting on achievements. The following capacity gaps generally exist in SIDS with regard to data collection:

- Lack of valuation of biodiversity and ecosystem services
- No national environmental accounting
- Lack of information on biodiversity and ecosystem services
- Lack of data on technology, tools, practices to build resilience
- Lack of data on how to monitor for changes in biodiversity values
- Difficulty in aligning data, particularly as technology changes
- Lack of data on how biodiversity can benefit socioeconomic conditions
- Poor usability/accessibility of existing data banks
- Data may not be downscaled enough to be usable.

(v) Capacity Gaps in Scientific Cooperation, Technology Transfer and Knowledge Management

- Low technical and institutional capacity to integrate, apply technology and knowledge, and identify what is needed for improved biodiversity conservation
- Lack of expenditure on research and development
- Weak science-policy interface
- Need for more specialized data banks
- Lack of knowledge on what technologies are most needed to combat specific biodiversity problems
- Data collection needs to be seen as an ongoing process not as a time-bound output
- During COVID-19, larger num-

ber of participants should be allowed to enter training sessions and platforms to capacitate a greater number of staff

- Sometimes data portals and information platforms require too high a level of expertise to engage
- General lack of expenditure on research and development in SIDS and low capacity to conduct research in Natural Sciences
- Tertiary education institutions should play a bigger role in supplementing skills gaps and retaining knowledge within the SIDS
- Lack of investments in education, and skills development, also contribute to a culture of employing international consultants to fulfill biodiversity related tasks. This can potentially hinder retention of skills, institutionalizing knowledge, and limit opportunities for local researchers and technicians to engage
- Knowledge management hubs and data portals may be duplicative and may create new silos of knowledge
- SIDS need data sets to be responsive to specific biodiversity needs e.g., IAS, Nagoya Protocol.

II. Enabling Conditions

Whole-of-Government Approach

Given the highly integrated nature of biodiversity, especially in a SIDS context, a whole-of-government approach is needed to address conservation needs. Despite the value of nature to tourism, agriculture, fisheries, planning or health, SIDS face constraints in employing a whole-of-government approach to address their biodiversity objectives. The whole-of-government approach is also aligned with SIDS' ridge-to-reef (R2R) approaches, which by nature require whole-of-government and society approaches. The main challenges of engaging whole-of-government for biodiversity include:

- Policy instruments that undercut biodiversity objectives

- Lack of biodiversity information, data and numbers that could be mainstreamed into other sectors
- Piecemeal and uncoordinated approach of implementing biodiversity conservation activities
- Political agenda and vested interests may not be conducive to conservation activities
- Project approach in biodiversity protection, means that medium-to long term considerations are not embedded institutionally

Whole-of-Society Approaches

In the discussions that resulted in the Samoa Pathway it was suggested that SIDS could model-whole-of-society approaches to sustainable development, while acting as stewards of oceans on behalf of all humanity. To do so, SIDS need to engage civil society, private sector, women and indigenous and local communities in biodiversity protection. The following challenges have been identified in doing so:

(i) Civil Society

- Many civil society organizations are of a small size, have a lack of resources and staff for carrying out complex activities
- Smaller, localized civil society actors are unable to access donor or national level-funding
- There may be political differences and incoherence among CSOs and government priorities
- Project-dependent engagement: CSOs get invited to participate during the project life, and once the project is over, the engagement platforms cease; CSOs asked to participate in workshops without meaningful ownership of project activities as most projects are managed by government ministries
- CSO workload and costs increase when engaging in national biodiversity projects
- Private sector interests may have more clout than civil society interests e.g. tourism operators.

(ii) Private Sector

- Small private sector
- Private sector dominated by in-

ternational companies (tourism, extractives, agriculture), may not have shared vision/commitment to long-term conservation

- Lack of knowledge of national laws and regulations
- Ability to influence the national agenda with promises of growth, tourism, and economic development
- Pushback on regulations which add costs or delays.

(iii) Women

- Lack of decision-making roles in community processes
- Burdens of household family responsibility infringing on time and capacity to engage on biodiversity conservation
- Lack of mediums through which to mobilize
- Lack of meaningful engagement in existing interventions; “head count” approach to participation
- Women’s knowledge is not collated in meaningful ways
- Biodiversity conservation is not integrated into livelihood activities such as working in the tourism or fisheries sector
- Covid-19 pandemic has impacted women care-givers and hospitality services in disproportionate ways.

(iv) Indigenous Communities

- Traditional systems are changing; often regarded as irrelevant by broader society which ignores indigenous contribution to conservation
- Difficult to document, extricate what is and is not traditional knowledge as it is pervasive
- Lack of integration of traditional knowledge into science-policy development processes
- Lack of collection/dissemination of data on use of traditional knowledge
- Lack of knowledge on the nexus/potentials between traditional

knowledge and modern technology

- Without biodiversity valuations, traditional knowledge in protecting said biodiversity is often undervalued.

Integration with Relevant Multilateral Environmental Agreements and Other Relevant Processes

SIDS play an important role in various international processes. However, by dint of their characteristics, there are challenges in engaging in these processes, which could otherwise support sustainable development. These include the following:

- Too many international processes, onerous requirements for various inputs and participation that small country staff have trouble keeping up with
- Planning and reporting takes away from implementing activities
- Transportation and travel from SIDS to international meetings are challenging both in terms of time and cost. SIDS can often support small delegations (1-2 persons)
- While there has been a push for a One UN approach, this is not always manifested. Duplicating, overlapping or uncoordinated interventions within SIDS from international agencies create competing demands.
- Biodiversity is not mainstreamed within other international fora. While the SDG goals have created more space for integrating various environmental issues, biodiversity is still not as salient as climate change.
- In international fora, representatives from various SIDS usually come from the foreign affairs divisions. This may limit the kind of engagement on biodiversity issues that is needed.

Addressing full range of indirect drivers of biodiversity loss

Many of the indirect drivers of biodiversity loss are influenced by societal values and behaviours, which include production and consumption patterns, increasing populations, trade and technological innovations and global governance⁴. The Ridge-to-Reef approach offers a useful lens by which to assess downstream and upstream biodiversity impacts. The main challenges that remain, include:

- Some environmental activities, green solutions may inadvertently degrade biodiversity (e.g. sea bed mining for energy sources to fight climate change, planting of non-native vegetation which affects soil nutrients)
- Invasive Alien Species
- Political Instability/Changing Priorities
- COVID-19 Pandemic
- Fiscal instruments, incentives subsidies for agricultural production fisheries.

III. Responsibility and Transparency

Planning, Monitoring, Reporting and Review Process

- (a)Establishing national targets as part of national strategies and action plans;
- (b)Reporting national targets to enable the collation of national targets; and
- (c)Enabling the evaluation of national and collective actions against targets.

Many of the challenges in the planning, monitoring and review processes for target-setting and implementation of the CBD have been covered in aforementioned points, particularly in relation to gaps in data collection, sharing of

4 IPBES. 2019. Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J. Settele, E. S. Brondízio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Arneth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany

information, lack of monitoring and enforcement, and the challenges of reporting to various international processes. In addition, there are other specific SIDS-related constraints that have to be addressed to strengthen their means of implementation:

- Lack of skills at national level to report, review, process data and evaluate
- Monitoring of indicators is not mainstreamed within all sectors. This results in incomplete information of how biodiversity is being impacted at national level.
- Lack of cross-sectoral ownership
- Political challenges on who reports, houses responsibilities and conducts CBD activities
- Lack of quantitative and qualitative scientific information on the existing genetic resources, species, and habitats at the national level leads to incomplete reporting
- Lack of standards and methodologies in evaluating changes
- Participatory biodiversity planning processes often insufficiently process documentation to allow a genuine reflection on effectiveness and/or on the limitations of these processes
- CBD enabling activities are funded sporadically, whereas UNFCCC provides ongoing funding which allows allocation of staff to climate change agenda.

Opportunities for Other Actors to Contribute

The processes in SIDS for actors to contribute to target-setting differs, and some are more inclusive than others. Overall, the constraints identified include:

- Participatory planning processes require significant investments; especially challenging for countries whose territories are spread out
- Tendency of including the same groups/stakeholders for input
- Sectors are unclear on how targets will impact them
- Targets can cause tensions

with interest groups

- Different means of communications to attract stakeholders are used; some more effective than others in creating the necessary interest and buy-in by diverse societal groups.
- Growing digital divide and issues of access during the pandemic.

IV. Outreach, Awareness and Uptake

Outreach, awareness and uptake are a key means of implementing the biodiversity convention and meeting national biodiversity targets. The constraints which impede effective communication include:

- Lack of knowledge on value of biodiversity
- Lack of prioritization in domestic agenda
- Data and information from disparate projects is not centralized or collated in meaningful ways
- Academic institutions are not used to integrate knowledge generated from projects and initiatives
- Effectiveness of public awareness activities is not monitored; hard to know what was successful
- Too many different platforms, not utilized to their full potential
- Culture of consultants, short-term projects, does not support long-term institutional knowledge
- Traditional knowledge is not sufficiently leveraged
- Post-disaster post-crisis context does not allow space for thoughtful conservation activities' discussion
- Relevance of biodiversity not effectively demonstrated to interest groups and private sector
- Lack of community ownership of broader national objectives—objectives have to be downscaled
- Lack of incentives to participate in biodiversity protection activities
- Lack of investment in conservation science, research and development
- Poor communication
- Difficult to finance knowledge partnerships

- Lack of staff to be able to monitor and maintain international partnerships
- Overflow of information and a difficulty to extract what is needed and useful
- Digital divide affects access and engagement
- Caribbean and Pacific SIDS have strong regional partnerships and coalesce around shared concerns, the AIS function more disparately and require opportunities/support for collaboration.

Conclusions

While all countries face challenges in meeting their biodiversity targets, SIDS' vulnerabilities are drastically limiting the resources and means by which they can protect their ecosystems and natural environment. Given the limited land mass, proneness to natural disasters, economic circumstances, and a high dependency on natural resources, SIDS' biodiversity is greatly threatened.

Despite their individual differences, SIDS share many of the same constraints, which if unaddressed, continue to widen the gap between where countries are in terms of sustainability and where they would like to be. There is the risk that SIDS will go through unfulfilled cycles of target setting and a lack of achievement against these. As custodians of globally relevant biodiversity, as the most exposed to risks, disasters, economic shocks, a SIDS-based approach to biodiversity protection is necessary, not just for global environmental benefits, but for protection against mass extinctions, degradation of key natural resources and loss of livelihoods. There is the opportunity to render the means of implementation more strategic, so that they target and respond to SIDS' gaps in ways that assist them in protecting their natural environment while sharing benefits.

Leveraging a SIDS-based approach, given the recognition of SIDS in various international processes, and to do so urgently due to dire economic threats SIDS face, would be beneficial in the post-

2020 context. It would also support the Outcome Document of the high-level Review of the SAMOA Pathway (2018), OP30(I), which emphasizes the need of supporting SIDS through: “The creation of the enabling environment to facilitate and attract foreign direct investment and financing, and capacity support for small island developing States.”

The following are the key lessons learned that have been drawn from close consultation with CBD focal points and the gap assessment:

Lesson 1 - SIDS face unique vulnerabilities and opportunities that must be capitalized upon if progress is to be made on biodiversity protection. SIDS need to be addressed as a distinct category by financial mechanisms, in negotiations, and to facilitate SIDS-SIDS cooperation, so that challenges masked by medium-to-high income status, are addressed through strategic initiatives. The high cost of delivering development action and transportation; the limited human resources and skills, the onerous reporting for MEAs and projects need to be aligned, and considered in financial allocations and capacity support SIDS receive.

Lesson 2 - While concessional funding is greatly needed, traditional project-based funding model does not appear to be making systemic changes necessary to enhance skills and capacities, retain knowledge, and generate data. Longer-term accompaniment must be considered, and skills retention strategies should be folded into initiatives to enhance institutional knowledge and prevent brain drain. Output-based projects may mask more foundational work that is required to foster sustainable capacities.

Lesson 3 - SIDS need freedom to manage their biodiversity financing. They are dealing with disasters, with economic limitations, and low human resources. What may not appear to be biodiversity-related in one country, is in fact very much so

in SIDS due to enclosed land mass, ridge-to-reef reality, and highly interdependent economies. Flexibility is required in concessional financing arrangements to account for this.

Lesson 4 - Data on biodiversity is a gap that underpins virtually every constraint. Investments in biodiversity valuations are needed to inform policy decisions, justify requests for resource mobilization, enhance public awareness and knowledge, and support monitoring and enforcement. Intersectoral biodiversity mainstreaming can only happen if sectors have a better idea of what ecosystems are contributing and risking. However, data collection and management is an ongoing exercise. Over time, sectors require the ability to inform and manage such data. Data collection and management cannot be an output-based item and needs ongoing growth and accompaniment. Data for SIDS by SIDS needs to be prioritized.

Lesson 5 - In the wake of the economic crises, SIDS must be supported to build back better, with biodiversity principles in mind. With the focus on green technologies and green solutions with a potential of leveraging natural resources, and an urgency to re-ignite tourism, it is necessary to ensure these activities are not undermining ecosystems. ODA and debt-refinancing strategies would benefit from including biodiversity considerations to strengthen the sustainability of SIDS' natural environment and the benefits this affords them.

Lesson 6 - Given the small size of SIDS, there are opportunities for innovative and holistic development. Novel partnerships, strategies and innovative practices are underway in many SIDS, which need to be learned from. Emphasis on SIDS as ‘large ocean states’ recognizes the influence SIDS have and the key role they play in managing marine/ocean resources. However, the focus on the blue economy should not undermine terrestrial ecosystems and vice versa.

Lesson 7 - SIDS exercise leadership and influence in the UNFCCC arena. Lessons can be drawn from this engagement, and replicated within the CBD context. In particular, SIDS require support beyond enabling activities, to commit staff from a limited pool of human resources. A formal grouping in the UNFCCC has also given SIDS a greater voice to reflect SIDS-specific needs. SIDS have identified in the regional workshops that were held during the course of this assessment that a formal SIDS grouping would be beneficial for collaborations and cooperation. Strengthening the means of implementation for **SIDS as a formal cluster** of countries would allow the pooling of resources, sharing of knowledge and expertise, opportunities for synergies and likely result in higher aggregate results against biodiversity targets.

A decorative graphic consisting of numerous thin, white, wavy lines that flow from the top left towards the bottom right, creating a sense of movement and depth against the solid blue background.

1. Introduction

1.1 Context

The upcoming international landmark UN framework: the new Post-2020 Global Biodiversity Framework is expected to be adopted at the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) during its forthcoming 15th meeting (CBD COP 15). In this context, as countries adopt a biodiversity framework as a stepping stone towards the 2050 Vision of “Living in harmony with nature”⁵, it is essential to identify the shared challenges, gaps and constraints that have prevented small island developing states (henceforth SIDS) in making the progress they have sought, in achieving their biodiversity targets.

SIDS have been identified as having “extraordinary marine and terrestrial biodiversity that in many cases is fundamental to their livelihoods and identity”⁶ according to the Small Island Developing States Accelerated Modalities of Action (SAMOA Pathway), which highlights the importance of conservation and sustainable use of biodiversity⁷.

SIDS are repositories of some of the world’s most diverse and unique species and ecosystems. Small islands of the Caribbean, West Indian Ocean, and the Pacific are considered hotspots of biological diversity. The Caribbean houses 12,000 species of plants, of which 7,000 are endemic; islands in the West Indian Ocean are home to the highest degree of amphibian endemism of any island group; and the Pacific contains some of most extensive and biologically diverse coral reefs, the deepest ocean trenches, deep-sea

minerals, as well as a slew of globally threatened species such as sea turtles and dugongs⁸.

Despite housing such unique biodiversity upon which populations depend, SIDS’ ecosystems are highly vulnerable due to their unique remoteness, isolation, and high level of endemism⁹. Ocean islands are home to around one-sixth of all threatened plant species in the world, of which one in three are endemic¹⁰. Island flora and fauna, in many SIDS, are particularly vulnerable to extinction; as many as 75 % of the birds and animals known to have gone extinct lived on islands¹¹. To address these biodiversity threats which affect livelihoods, food and water resources, the natural environment, health, and the economy, **SIDS require strategic support to achieve their biodiversity targets, and for implementation of the Biodiversity Convention to generate global environmental benefits.** However, **to move the needle forward on conserving global biodiversity, it is necessary to address SIDS’ abilities to access and strengthen their means of implementing the Convention on Biological Diversity.** It is only through improving the means that the strategic constraints that prevent countries from achieving their national biodiversity targets, can be addressed.

SIDS include some of the world’s smallest and most remote states in the world, with differing populations, geographies, cultural backgrounds, levels of economic development. Despite geographic dispersion, and varying socio-economic, cultural and political contexts, SIDS share many biodiversity-related concerns

(see Section 1.4.2), which prevent them from investing in sustainable development in ways that will generate the greatest benefits. Shared concerns include ecosystem degradation, high exposure to natural disasters and climate change, global economic shocks, small or unstable domestic revenues and limited borrowing— these common concerns provide the opportunity to engage SIDS as a cluster, and to tailor interventions more strategically to meet needs for implementation of biodiversity objectives.

SIDS face growing climate, economic and COVID-related threats, which exacerbate their ability to protect their natural environment; this creates a negative feedback loop— biodiversity degradation leads to poorer ability to adapt to climate change, weakened economies, and instability in national food supply, while the aforementioned threats further degrade natural resources. To break this negative cycle, a strategic suite of actions has to be taken by the global community to (i) recognize SIDS’ specific needs and concerns; (ii) strengthen the means of implementation so that SIDS have opportunities to meet their biodiversity objectives resulting in global environmental benefits; (iii) and recognize that nature-based solutions are integrally linked to climate, economy, food security among others. Given how integrated biodiversity is to all other sectors in SIDS (see Section 2), this will lead to multiplier benefits on the economic and social fronts. Overall, strengthening the means of implementation to achieve biodiversity objectives, while acknowledging the unique ways in which constraints manifest in SIDS, addresses the

5 CBD. Preparations for the Post-2020 Biodiversity Framework. Available online at: <https://www.cbd.int/conferences/post2020>

6 Sustainable Development Knowledge Platform. SIDS Accelerated Modalities of Action (SAMOA) Pathway. Available online at: sustainabledevelopment.un.org/samoapathway.html

7 Ibid. See articles 89-93

8 GEF. GEF and Small Island Developing States. Available online at: openknowledge.worldbank.org/bitstream/handle/10986/14831/333380ENGLISH0GEF1SIDS.pdf?sequence=1&isAllowed=y

9 SPREP. Pacific Small Island Developing States. Concept Note: Enhancing Technical and Financial Support to SIDS for Implementation of the Biodiversity Convention. Available online at: sprep.org/sites/default/files/documents/circulars/Cir21-49_Concept%20Note-SIDS%20BIODIVERSITY%20COALITION%20PSIDS-UNDESA%20Collaboration.pdf

10 Ibid

11 Ibid

core dilemma faced by small islands: they are the custodians of threatened globally relevant biodiversity but lack the means to protect it.

1.2 Purpose of the Report

The objective of this report, supported by the United Nations Department of Economic and Social Affairs (UN DESA) in collaboration with the Secretariat of the CBD, is to identify specific gaps, challenges, and constraints that SIDS face in the means of implementation to achieve biodiversity targets and conservation goals. In so doing, the report seeks to highlight the unique ways in which these gaps are experienced in the SIDS context to inform technical interventions, capacity support, advocacy tools and policy processes. This report will also serve to reflect lessons learned from the SIDS experience to highlight the leadership of SIDS on biodiversity conservation, despite existing constraints.

The purpose of this report is also to highlight the significance of SIDS as a group of actors on the biodiversity and sustainable development agenda, and the need to address shared barriers. Addressing common barriers will yield greater global environment benefits at large, and will allow for pooling of resources, opportunities for knowledge-sharing, and scaling up of biodiversity conservation on a global scale.

The report also serves to recognize that supporting the means of implementation in SIDS, supports global biodiversity at large. SIDS are the vanguards of global biodiversity—if global environmental benefits are to be attained, then the constraints preventing SIDS from meeting their targets need to be remedied. There is thus the need for collective recognition and support for how some of these constraints manifest uniquely within SIDS, to achieve the kind of global results needed in the post-2020 context.

The report seeks to capitalize on timing; the post-2020 biodiversity framework is to be finalized and as new programmes of work are adopt-

ed. There are opportunities to inform interventions on how to improve support for SIDS' means of implementation. There is also momentum for SIDS in other multilateral forums, most notably in the climate change realm, and there is opportunity to draw the interest in SIDS into biodiversity-related processes. This assessment also refers to the publications from numerous institutions who are working toward increasing awareness of the vulnerability of SIDS in the face of environmental and economic challenges.

1.3 Structure of the Report

The report will be organized in four key sections. **Section 1** provides an introduction to the subject matter, the purpose of the report and the methodology employed. **Section 2** highlights why SIDS are a special case for sustainable development and biodiversity protection, while noting shared risks, and how SIDS are addressed in other global processes. **Section 3** delves into the various means of implementation required to achieve results under the CBD, and the constraints SIDS face vis-à-vis each of them. Specific country examples relative to the means of implementation identified in the post-2020 Biodiversity Framework, are provided. **Section 4** provides conclusions, a recapitulation of all constraints and lessons learned.

For ease of reference, summary boxes will be provided in each sub-section capturing the main findings and points of discussion. For country examples, elaborations and analysis, kindly refer to the greater text.

1.4 Methodology

This assessment includes both qualitative and quantitative data and involved three key aspects: (i) a literature review; (ii) interviews and consultations; and (iii) information processing and elaboration of findings.

At the core of this assessment was a literature review of key documents, including but not limited to national

reports from SIDS countries submitted to the CBD Secretariat, project documents and evaluations, National Capacity Self Assessments (NCSAs), National Biodiversity Strategies and Action Plans (NBSAPs) and National Biodiversity Reports. A variety of technical publications from UNDP, UNEP, WHO, UNESCO, IISD, IPCC, IUCN, OECD among others (a complete list of works reviewed is in Annex 1) were consulted. Documents relevant to other conventions (UNFCCC, UNCTAD, UNDRR) and multilateral processes (Samoa Pathway, Addis Ababa Action Agenda, Sendai Framework), were also examined to understand how SIDS are recognized as a special and unique group. Global Environment Facility (GEF) project reports and evaluations helped identify specific barriers SIDS face in strengthening their means of implementation. These sources were triangulated and underpinned the elaboration of findings and literature review.

Key informants to the project were CBD country focal points. They were liaised with throughout the process. Three regional workshops were held with the Pacific, Caribbean and the African, Indian Ocean and South China Seas region (AIS), respectively, during which early findings on constraints were shared, and inputted on by attendees. The first draft of this document was shared with CBD focal points to ensure that the documentation reflects country experiences. Overall, 65 consultations were held and 24 countries were consulted directly through bilateral or multilateral means.

Bilateral meetings were also held with representatives from the CBD Secretariat, AOSIS, the Global Island Partnership (GLISPA), and UNDP. Women were well-represented in regional consultations. There was over 50% female participation in the Caribbean and AIS workshops.

Scope of the Assessment

Given the very broad scope of means of implementation of achieving biodiversity objectives for all

SIDS, the data collection for the development of the study should not be considered exhaustive. Instead, the information should be seen as illustrative of the gaps and constraints that SIDS are confronting and should be integrated into future planning and global processes.

While this report focuses on means of implementation (not on biodiversity targets per se), it is important to clarify what is meant by ‘meeting biodiversity objectives, goals or targets’ throughout the text. The COP is underway at the time of writing, the assessment refers loosely to Aichi Targets¹², but also to national biodiversity goals and objectives. The global discourse on biodiversity is evolving, and to maintain the validity of this report, the means of implementation will be assessed relative to the three main objectives of the CBD¹³:

- Conservation of biological diversity

- Sustainable use of the components of biological diversity
- Fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

1.4.1 Means of Implementation

The ‘Means of Implementation’ is a useful lens through which to capture the gaps, constraints and challenges experienced by SIDS in meeting their biodiversity objectives, as it serves to articulate how SIDS can be supported for improved biodiversity conservation, particularly when ambitious targets are agreed to at the global level. Without addressing the means, SIDS will be unable to meet their objectives. Vehicles to achieve biodiversity goals must be addressed, in order to avoid cycles of unmet target setting.

The 2030 Agenda for Sustainable Development¹⁴ and the Addis Ababa Action Agenda (AAAA)¹⁵ on Financing for Development describe

the ‘Means of Implementation’ (MOI) as the interdependent mix of financial resources, technology development and transfer, capacity-building, inclusive and equitable globalization and trade, regional integration, and the enabling environment required to implement the 2030 Agenda.” ‘Means of implementation’ (MOI), are consistently recognized as key factors in attaining sustainable development. They are identified under each sustainable development goal, and in the SAMOA Pathway.

There are nuances depending on which framework one refers to. In the biodiversity context, the means of implementation are the support mechanisms under the Convention on Biological Diversity (CBD) to support implementation of goals and targets. In this assessment, the means of implementation are the analytical entry points by which the challenges and successes of the SIDS will be examined. This assessment will examine constraints and gaps according to the following means of implementation identified in the draft Post-2020 Biodiversity Framework:

Table 1. Means of Implementation Identified in the draft Post-2020 Biodiversity Framework

Thematic Areas	Means of Implementation to be discussed in assessment
Implementation Support Mechanisms	Financial Mechanisms
	Strategies for Resource Mobilization
	Capacity Building and Development (Cross-Cutting)
	Technical and Scientific Cooperation; Technology Transfer
	Knowledge Management

12 The Aichi Targets consist of 20 targets agreed upon by countries to support the implementation of the Convention on Biological Diversity, over the period of 2010-2020. The mission of this plan was to: “Take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet’s variety of life, and contributing to human well-being, and poverty eradication. To ensure this, pressures on biodiversity are reduced, ecosystems are restored, biological resources are sustainably used and benefits arising out of utilization of genetic resources are shared in a fair and equitable manner; adequate financial resources are provided, capacities are enhanced, biodiversity issues and values mainstreamed, appropriate policies are effectively implemented, and decision-making is based on sound science and the precautionary approach.” In CBD. Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets: “Living in Harmony with nature” Available online at: cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf

13 CBD. Text of the Convention. Available online at: cbd.int/convention/text/

14 UNDESA. Transforming Our World: The 2030 Agenda for Sustainable Development. Available online at: sdgs.un.org/2030agenda

15 UN. 2015. Addis Ababa Action Agenda of the Third International Conference on Financing for Development. Available online at: sustainabledevelopment.un.org/content/documents/2051AAAA_Outcome.pdf

Thematic Areas	Means of Implementation to be discussed in assessment
Enabling Conditions	Whole-of-government approach
	Whole-of-society approach
	Integration with relevant multilateral environmental agreements and other relevant international processes
	Ensuring gender equality; reducing inequalities
	Addressing full range of indirect drivers of biodiversity loss
Responsibility and Transparency	Planning, monitoring, reporting and review process
	Mechanisms allowing transparent communication of progress to all by: (a) Establishing national targets as part of national strategies and action plans; (b) Reporting national targets to enable the collation of national targets; and (c) Enabling the evaluation of national and collective actions against targets”
	Alignment to Protocols reporting and integrated with other international processes
	Opportunities for other actors to contribute
Outreach, Awareness and Uptake	Increasing understanding, awareness and appreciation of the values of biodiversity, including the associated knowledge, values and approaches used by indigenous peoples and local communities
	Awareness-raising of all actors
	Promoting or developing platforms and partnerships



2. SIDS as special case for Sustainable Development and Biodiversity Protection

2.1 Why SIDS?

Summary: Why SIDS?

- SIDS have unique environmental, social and economic vulnerabilities which cannot be captured by income/GDP indicators alone; a multi-dimensional vulnerability index can better capture the extent of SIDS' vulnerabilities.
- SIDS are large ocean states; through exclusive economic zones (EEZs), they manage about 30% of all oceans and seas and have around 24,111 km² in total land area and 666,110 km² in EEZs, through which they can leverage great economic influence (IISD).
- SIDS offer unique opportunities to test biodiversity policies/initiatives and measure for impact because of their small size, and because biodiversity is crucial to key sectors.
- Investments in biodiversity protection have multiplier benefits in SIDS.
- Some SIDS are paving the way and piloting innovative ways of investing in biodiversity.
- SIDS are windows for continental countries to learn from.
- SIDS differ from other islands in the level of access they have to means of implementation.
- SIDS have high levels of endemism; changes in ecosystems can have drastic effects and even lead to extinctions.

SIDS are a distinct group of 38 UN Member States¹⁶ and 20 Non-UN Members/Associate Members of United Nations regional commissions¹⁷ that face unique social, economic, and environmental vulnerabilities¹⁸, and have been referred to as a special case for sustainable development¹⁹. First recognized in 1992 at the UN Conference on Environment and Development in Rio, this was reaffirmed in Barbados in 1994, at the first UN Conference on Sustainable Development SIDS. During the Rio + 20 Conference in 2012, the “special case” was re-emphasized, and was included in Agenda 21, a programme of action for sustainable development.

This formed the basis of the First UN Conference on the Sustainable Development of the SIDS, held in Barbados²⁰. This was followed by a second conference on SIDS in Mauritius, and a Third International Conference on SIDS in Samoa in 2014, where the SAMOA Pathway was enshrined, affirming that “small island developing States remain a special case for sustainable development in view of their unique and particular vulnerabilities and that they remain constrained in meeting their goals in all three dimensions of sustainable development²¹.”

Unique Vulnerabilities

Part of what makes the SIDS unique, is the suite of vulnerabilities which they share. As noted by the Organisation for Economic Cooperation and Development (OECD), small island states are characterised by fragile natural environments, falling fish stocks, threatened biodiversity, limited water availability, invasive alien species, and land management challenges. SIDS are also highly vulnerable to the effects of climate change, such as extreme weather events, sea level rise, and habitat degradation. Unfortunately, many SIDS have a lack of resilience in the face of

16 In the Pacific region this includes: Fiji, Kiribati, Marshall Islands, Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor Leste, Tonga, Tuvalu, Vanuatu. In the Caribbean region this includes: Antigua and Barbuda, Bahamas, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago. In the Atlantic, Indian Ocean and South China Sea region, this includes: Bahrain, Cabo Verde, Comoros, Guinea-Bissau, Maldives, Mauritius, Sao Tome and Principe, Seychelles, Singapore.

17 Non-UN Members/Associate Members of Regional Commissions SIDS include: American Samoa, Anguilla, Aruba, Bermuda, British Virgin Islands, Cayman Islands, Commonwealth of Northern Marianas, Cook Islands, Curacao, French Polynesia, Guadeloupe, Guam, Martinique, Montserrat, New Caledonia, Niue, Puerto Rico, Saint Maarten, Turks and Caicos Islands, U.S Virgin Islands.

18 AOSIS. About Small Island Developing States. Available online at: un.org/ohrrls/content/about-small-island-developing-states

19 IISD. Conferences of the Sustainable Development of Small Island Developing States. Available online at: enb.iisd.org/negotiations/conferences-sustainable-development-small-island-developing-states-sids

20 UNSDG. 1994. Barbados Programme of Action. Available online at: sustainabledevelopment.un.org/conferences/bpoa1994

21 Sustainable Development Knowledge Platform. SIDS Accelerated Modalities of Action (S.A.M.O.A) Pathway. Available online at: sustainabledevelopment.un.org/samoapathway.html

natural disasters, including, storm surges, droughts, floods and landslides²². The Global Environment Facility (GEF) notes that SIDS are isolated, lack economies of scale, have high transportation and communication costs, and have limited means and capacity to implement comprehensive sustainable development goals²³. SIDS' economies typically depend on narrow and fragile resource bases and are subject to the vagaries of international trade. Small island states usually export a small range of natural/primary products and depend heavily on tourism, fisheries and on some islands, mining and mineral extraction. Taken together, the aforementioned characteristics and factors make SIDS ecologically, economically and geopolitically vulnerable, particularly to outside shocks²⁴. These risks will be expanded upon in the following section.

The concept of vulnerability can vary from SIDS to SIDS. In UN processes, it has historically been tied to ecological fragility, proneness to natural disasters, and concentration of exports on limited products and markets²⁵. GDP indicators are often used to assess the health of economies and vulnerability, where development interventions are concerned. In the case of SIDS, however, GDP indicators alone may not capture their susceptibility to risk

factors. One of the historic limitations and challenges for SIDS have been that some perform well by GDP indicators or per income capita²⁶, but this may mask domestic vulnerabilities. The Seychelles, for instance, before COVID-19, was deemed a high-income country²⁷, and most SIDS are identified as middle-income countries²⁸. This means that many SIDS may not be eligible for concessional financing because they are classified as middle-or high-income countries²⁹. Today, work by UNDP on the multidimensional vulnerability index, highlights that SIDS are far more vulnerable, than income data suggests. This vulnerability has been exacerbated by the COVID-19 pandemic due to restricted travel, collapsing investment and tourism, and weakening of economies from which remittances are sent³⁰.

The concept of vulnerability espoused in this paper, thus takes into the multidimensional vulnerability index, which recognizes that traditional elements measuring development are not holistic enough to capture the scope of threats faced³¹. SIDS have reiterated the need for such an index to be applied by development agencies, in the follow up to the SAMOA pathway. While some development actors such as the World Bank, have created special funds and mecha-

nisms to address SIDS' vulnerabilities, there is still a lack international consensus on what such an index would look like and how it would address small states' vulnerabilities³².

While many countries face similar challenges, such as less developed countries, or small states, what makes the SIDS unique is the **compounding of these vulnerabilities** — the vulnerability of small and dependent economies, small land masses and increasing environmental and climate threats. The fact that SIDS' domestic economies are highly interlinked means a shock in one sector can wreak havoc across the country at large. The proneness of SIDS to disasters, also mean that SIDS are continually rebuilding, often getting out of one disaster scenario, when another strikes. This limits their resources to finance other sectors of society.

Despite this, SIDS offer the ideal scenario for mainstreaming biodiversity into other sectors. In SIDS, there is no economy without biodiversity, there is no tourism or extractives without nature. Working in one sector undoubtedly affects others due to geographic proximity and interconnectedness. SIDS are self-contained ecosystems with well-defined geographic limits, that enclose fundamental ecological processes and interactions.

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- 22 OECD. 2015. Small Island Developing States (SIDS) and the Post-2015 Development Finance Agenda. Available online at: oecd.org/dac/financing-sustainable-development/Addis%20Flyer%20SIDS%20FINAL.pdf
- 23 GEF. GEF and Small Island Developing States. Available online at: openknowledge.worldbank.org/bitstream/handle/10986/14831/333380ENGLISH0GEF1SIDS.pdf?sequence=1&isAllowed=y
- 24 Ibid
- 25 UNCTAD. 2004. Is a Special Treatment of Small Island Developing States Possible? Available online at: unctad.org/system/files/official-document/ldc20041_en.pdf
- 26 UNCTAD. 2004. Is a Special Treatment of Small Island Developing States Possible? (2004) Available online at: unctad.org/system/files/official-document/ldc20041_en.pdf
- 27 AIS Regional Workshop. November 2021
- 28 IISD. Mead, L. Small Islands, Large Oceans: Voices on the Frontlines of Climate Change. Available online at: iisd.org/system/files/2021-03/still-one-earth-SIDS.pdf
- 29 UNDP. Assa, J. & Meddeb, R. 2021. Towards a Multidimensional Vulnerability Index. Available online at: UNDP. Available online at: undp.org/publications/towards-multidimensional-vulnerability-index#modal-publication-download
- 30 Ibid
- 31 UNGA. 2021. Follow-up to and Implementation of the SIDS Accelerated Modalities of Action (SAMOA) Pathway and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States: Report of the Secretary-General. 76th Session. Available online at: undocs.org/pdf?symbol=en/A/76/211
- 32 Ibid

These ecosystems, because of their scale, offer scope for holistic management and rehabilitation³³. There is thus great promise for compounding benefits, if biodiversity considerations are integrated within various sectors.

Considerations for Endemism

The isolation of islands accounts for high levels of endemism; the percentage of endemic species is often very high in SIDS. In countries such as the Dominican Republic, Fiji and Mauritius, more than 30 % of plant species are endemic. Half of the mammal species of Mauritius and one third of those in the Solomon Islands are not found in any other country³⁴.

However, the CBD notes that 95 % of bird, 90 % of reptile, 69 % of mammal and 68 % of plant extinctions have occurred on islands³⁵. Island species tend to be small, localized and specialized. Any change in their ecosystems can drive them to extinction.

Leading by Example

SIDS are often leaders in identifying environmental threats, and a window to concerns and impacts that will follow in other countries. SIDS were among the first to raise the alarm on climate change because they experienced the impact so acutely³⁶. Because of the size of SIDS, they can offer unique insights as a space where policy decisions and conservation activi-

ties can be tested, which they and other countries can learn from. SIDS are microcosms of continental counterparts where strategies, policies and management regimes for sustainable development can be applied, verified, refined, and where cause and effect are more readily observable, outcomes more rapidly seen and results more measurable³⁷.

The increased vulnerability of SIDS also allows them to innovate and test out ideas before the rest of the world catches on — **vulnerability precipitating action**. As will be highlighted in Section 3, Fiji, St. Lucia and Seychelles are all piloting innovative policies to invest in their biodiversity, which allows useful lessons learned for the whole world. SIDS thus offer knowledge, test results, and provide insights into future risks and threats to continental counterparts. The supporting of SIDS will not only support globally significant biodiversity, but also international pursuit of sustainable development and the conservation and sustainable use of biodiversity in other countries³⁸.

High Potential for Impact

SIDS' Exclusive Economic zones are on average 28 times the country's small land mass, and support many coastal livelihoods depending on fisheries, aquacultural and tourism. Investments in the ocean economy and biodiversity, have

high potential on positively impacting the lives of many vulnerable communities and economies, and leading to multiplier effects. A recent report commissioned by the High Panel for a Sustainable Ocean Economy notes that the overall rate of investment in ocean economies yields benefits that are five times greater than the cost. Every dollar spent on mangrove restoration, for example leads to an estimated 3 dollar benefit; every dollar invested in sustainably sourced ocean-based protein is estimated to yield 10 dollars in benefit³⁹. These benefits do not account for other benefits such as potential increase in tourism revenues⁴⁰, healthier marine ecosystems, impacts on marine biodiversity⁴¹, and social and cultural capital benefits. Thus, investments into SIDS' ocean economies show true promise for demonstrable impact.

Why SIDS and not islands at large?

Indeed, all islands share many similarities and are demographically, geographically and ecologically significant⁴²:

- Earth's 175,000 islands are home to more than 600 million inhabitants
- Islands and their oceans represent one sixth of Earth's total area
- Islands support many of the most unique and isolated natu-

33 Nevill, J. Eco-Tourism as a Source of Funding to Control Invasive Alien Species: The Case of Seychelles in International Journal of Island Affairs. Available online at: cbd.int/doc/ref/island/insula-ecotour-en.pdf

34 FAO. 2004. FAO and SIDS: Challenges and Emerging Issues in Agriculture, Forestry and Fisheries. Available online at: fao.org/3/Y5203E/y5203e00.htm#TopOfPage

35 UN-OHRL. 2013. Small Island Developing States in Numbers. Available online at: wedocs.unep.org/bitstream/handle/20.500.11822/9279/-SIDS%20in%20numbers-2013SIDS_IN_NUMBERS_121813_FA_WEB.pdf

36 IISD. Mead, L. Small Islands, Large Oceans: Voices on the Frontlines of Climate Change. Available online at: iisd.org/system/files/2021-03/still-one-earth-SIDS.pdf

37 Nevill, J. Eco-Tourism as a Source of Funding to Control Invasive Alien Species: The Case of Seychelles in International Journal of Island Affairs. Available online at: cbd.int/doc/ref/island/insula-ecotour-en.pdf

38 Ibid

39 Konar, M & Ding, H. 2020. A Sustainable Ocean Economy for 2050; Approximating its Benefits and Costs. Secretariat of the High-Level Panel for a Sustainable Ocean Economy, World Resources Institute. Available online at: oceanpanel.org/Economicanalysis

40 Ibid

41 Ibid

42 GLISPA. Importance of Islands. Available online at: glispa.org/about

ral systems including more than half the world's marine biodiversity (7 of the world's 10 coral reef hotspots; 10 of the 34 richest areas of biodiversity in the world; 64% of recorded extinctions are on islands

➤Over two thirds of the world's countries include islands.

Despite this, one would be remiss to view all islands in the same manner, given that they have different institutional, political, and economic set-ups. One reason for distinguishing SIDS from other islands, is that access to means of implementation between SIDS and non-SIDS is significantly different. SIDS fall in their own category because they are independent states. Around one hundred sub-national island jurisdictions (SNIJs) exist as remnants of empire (e.g. Bermuda or the Falklands); special components of larger states (e.g. Isle of Mann or American Samoa); or as island members of continental federated states (e.g. Hawaii or Tasmania⁴³). These islands enjoy varying levels of autonomy and self-determination⁴⁴, however, non-SIDS islands are still, to varying degrees, tied to continental resources and institutions. SIDS are states unto themselves.

This does not mean that using the island paradigm to address SIDS biodiversity-related problems is not useful. Indeed, as noted in a consultation with the Global Island Partnership (GLISPA), non-SIDS

islands can leverage SIDS' concerns, raise them in various fora, and increase awareness for them in differing contexts, such as European Union meetings. Similarly, the uniqueness and prioritisation of island biodiversity is reflected in the Island Biodiversity Programme established through CoP decision VIII/1 where countries adopted the first-ever programme of work dedicated solely to the uniqueness and fragility of island biodiversity⁴⁵.

However, a SIDS-focused approach in the biodiversity context, could help address some specific challenges related to means of implementation, which are different for sub-national island jurisdictions. It could also potentially move from identifying the threats and vulnerabilities that islands face at large, and move towards greater specifics, on how these are to be addressed to achieve biodiversity targets. An all-island approach can miss the critical needs at the means of implementation level, which ultimately will make biodiversity conservation possible.

Islands linked to continental countries have differing institutional, geographic, and economic capacities; an example is that of Guadeloupe, compared to other SIDS in the Caribbean. Guadeloupe is supported by France in many ways and since 1946, Guadeloupe has the status of départements et régions d'outre-mer to which all EU law in principle applies⁴⁶. Guade-

loupe biodiversity-related issues are governed by local offices of the national ministry, and a locally elected Regional Council and General Council. All French laws apply in Guadeloupe which means that jurisdiction of France extends to the islands including in nature management⁴⁷. While there is some autonomy and Guadeloupe increasingly sets nature-based strategies for themselves, its activities are paid from France's ministerial body⁴⁸. When looking at specific biodiversity concerns, on invasive alien species, and the development of IAS policy in Guadeloupe, the resources transferred from France to the island are a crucial enabling factor, and France ensures a certain minimum is adhered to. This strong overarching system is thus beneficial for policy development⁴⁹.

This kind of central, continental support is missing from SIDS that do not benefit from diversified economies or from larger education, military, agricultural or environmental budgets. The resource base from which SIDS draw is comparatively lower. This is highlighted further in Section 3.1.

43 Baldacchino, G. Small Island States; Vulnerable, Resilient, Doggedly Perseverant or Cleverly Opportunistic? 2014. In *Etudes Caribéennes*. Issue 27-28

44 Baldacchino, G. Small Island States; Vulnerable, Resilient, Doggedly Perseverant or Cleverly Opportunistic? 2014. In *Etudes Caribéennes*. Issue 27-28

45 cbd.int/island/pow.shtml

46 Oostindie 2006 cited in Vaas, J., P. P. J. Driessen, M. Giezen, F. van Laerhoven, and M. J. Wassen. 2017. Who's in charge here anyway? Polycentric governance configurations and the development of policy on invasive alien species in the semi sovereign Caribbean. *Ecology and Society* 22(4):1. Available online at: doi.org/10.5751/ES-09487-220401

47 Mrgudovic 2012 cited in Vaas, J., P. P. J. Driessen, M. Giezen, F. van Laerhoven, and M. J. Wassen. 2017. Who's in charge here anyway? Polycentric governance configurations and the development of policy on invasive alien species in the semi sovereign Caribbean. *Ecology and Society* 22(4):1. Available online at: doi.org/10.5751/ES-09487-220401

48 Vaas, J., P. P. J. Driessen, M. Giezen, F. van Laerhoven, and M. J. Wassen. 2017. Who's in charge here anyway? Polycentric governance configurations and the development of policy on invasive alien species in the semi sovereign Caribbean. *Ecology and Society* 22(4):1. Available online at: doi.org/10.5751/ES-09487-220401

49 Vaas, J., P. P. J. Driessen, M. Giezen, F. van Laerhoven, and M. J. Wassen. 2017. Who's in charge here anyway? Polycentric governance configurations and the development of policy on invasive alien species in the semi sovereign Caribbean. *Ecology and Society* 22(4):1. Available online at: doi.org/10.5751/ES-09487-220401

2.2 Recognition of SIDS in other International Fora

Summary: Why SIDS?

- SIDS-specific language and programming is gaining momentum in international fora.
- Alignment with other global processes can help reinforce SIDS-specific programming and offer opportunities for synergies.
- Addressing 'Means of Implementation' is a significant way of supporting SIDS to achieve their sustainability goals across international fora.
- Leadership in the UNFCCC processes have transformed the way in which SIDS engage, are perceived, and influence.

Intergovernmental pronouncements on SIDS have been duly reflected in the structure of the UN Secretariat. A High Representative for the Least Developed Countries, Land-locked Developing Countries and Small Island Developing States was appointed in 2001, and UN-DESA has maintained a SIDS Unit⁵⁰. UN-DESA is the entity responsible for coordinating the response to the SAMOA Pathway. The recognition of SIDS as being unique is reflected in multilateral processes, and has gained momentum. It is important to take note of these, as they emphasize the relevance of addressing SIDS as a cluster. Within the biodiversity context it is useful to explore linkages and synergies and ensure that processes cross-feed each other to help resolve gaps that remain regarding SIDS in global biodiversity governance.

One of key documents that reflects the relevance of SIDS, is the SAMOA Pathway, the international framework that was the outcome of the Third International Conference on Small Island Developing States (SIDS Conference) held in 2014. The Conference, with the overarching theme “The sustainable development of Small Island developing

States through genuine and durable partnerships”, played a significant role in framing SIDS priorities for sustainable development. While the SAMOA pathway is the cornerstone for recognizing the unique vulnerability of SIDS and the pressing need to address this vulnerability, the SAMOA Pathway remains under-financed.

The United Nations Conference on Trade and Development (UNCTAD), also recognizes the challenges facing SIDS. UNCTAD, in accordance with the 2014 SAMOA Pathway and the 2016 Nairobi Maafikiano⁵¹, seeks to address the vulnerability of SIDS. UNCTAD notes that “for most SIDS, the main development challenge is vulnerability to external shocks. The paramount development goal of these countries therefore is resilience-building, a multi-faceted set of objectives ranging from climate adaptation to economic diversification. SIDS need external financial and/or technical support in their resilience-building efforts⁵².”

UNCTAD supports the resilience-building work of SIDS in several ways. UNCTAD’s three principal angles of action are: (1) Raise the visibility of island vulnerability

issues; (ii) Identify resilience-building and other special support measures for SIDS; (iii) provide selected SIDS with a range of advisory services, with a special focus on least developed SIDS which are faced with the challenge of graduation from LDC status. One can easily draw these principles beyond trade and development to global biodiversity conservation. Highlighting SIDS’ unique vulnerability issues, identifying resilience-building and special support measures, and providing SIDS with advisory services, can all be done within the upcoming COP and the conversations that are to follow — these can be integrated by addressing the means of implementation suggested in the draft biodiversity framework (See Section 3 for more). As such, UNCTAD’s observations and approaches align with this paper’s thesis for the need to strengthen the means of implementation to achieve biodiversity targets. Achieving biodiversity targets are part of the suite of actions required to be sustainable and resilient, and would support the SAMOA Pathway, as well as UNCTAD’s approaches.

The United Nations Industrial Development Organization (UNIDO), also focuses on SIDS, and this is

50 UNCTAD. Is a Special Treatment of Small Island Developing States Possible? (2004) Available online at: unctad.org/system/files/official-document/lcd20041_en.pdf

51 UNCTAD. Small Island Developing States. Available online at: unctad.org/topic/vulnerable-economies/small-island-developing-states

52 Ibid

enshrined in their 2019-2025 SIDS Strategy. The strategy was designed to strengthen and support the SAMOA Pathway, the 2030 Agenda and the SDGs, the Paris Agreement, the Addis Ababa Action Agenda and the recommendations provided in the Joint Inspection Unit (JIU) report on the review of the UN System's support for SIDS⁵³. The Strategy was adopted at UNIDO's General Conference in 2019, and focuses on addressing SIDS vulnerabilities compiled by UN-DESA. The vulnerabilities in question include: education, food safety and nutrition, disaster risk reduction, sustainable economic growth, financing, trade, climate change, sustainable energy, oceans and seas, and management of chemicals and waste.

The Addis Ababa Action Agenda (AAAA) emphasizes the differentiated needs of individual nations in the development agenda, and more specific country categories, such as Small Island Developing States (SIDS)⁵⁴. AAAA provides a comprehensive set of policy actions by Member States, with a suite of over 100 concrete measures to finance sustainable development, transform the global economy and achieve Sustainable Development Goals. The Addis Ababa Action Agenda recognized the development constraints and vulnerability of SIDS, promoting the need to look beyond capita income as a criterion determining eligibility for concessional finance⁵⁵. In so doing, the AAAA recognizes the unique nature of vulnerabilities, ones that go beyond national GDP or the developing non-developing country binary. This suggests that this package of vulnerabilities experienced by

SIDS is indeed unique and requires a different thinking; responses to these vulnerabilities require holistic, inter-sectoral responses taking into consideration the integrated, cross-cutting nature of SIDS societies. This must be considered when strengthening means of implementation for SIDS to implement the CBD (see Section 3).

Aligned with the SAMOA Pathway is also the Sendai Framework for Disaster Risk Reduction, which recognizes the acute exposure of SIDS to natural disasters, and the need for greater investments in the preparedness and risk reduction. The Framework notes that "disasters can disproportionately affect small island developing States, owing to their unique and particular vulnerabilities. The effects of disasters, some of which have increased in intensity and have been exacerbated by climate change, impede their progress towards sustainable development. Given the special case of small island developing States, there is a critical need to build resilience and to provide particular support through the implementation of the SIDS Accelerated Modalities of Action (SAMOA) Pathway in the area of disaster risk reduction⁵⁶."

Beyond merely identifying that SIDS are highly vulnerable, the Framework further notes SIDS as a category of their own: "Developing countries, in particular the least developed countries, small island developing States, landlocked developing countries and African countries, as well as middle-income countries facing specific challenges, need special attention and support to augment domestic resources and capabilities through bilateral

and multilateral channels in order to ensure adequate, sustainable, and timely means of implementation in capacity-building, financial and technical assistance and technology transfer, in accordance with international commitments⁵⁷."

By highlighting the means of implementation, the Sendai Framework further reinforces the thesis of this document, that means of implementation must be targeted if advancements are to be made in reduction of risks to disasters. The framework notes, "To achieve this, it is necessary: (a) To reaffirm that developing countries need enhanced provision of coordinated, sustained and adequate international support for disaster risk reduction, in particular for the least developed countries, small island developing States, landlocked developing countries and African countries, as well as middle-income countries facing specific challenges, through bilateral and multilateral channels, including through enhanced technical and financial support and technology transfer on concessional and preferential terms, as mutually agreed, for the development and strengthening of their capacities⁵⁸."

While the Sendai Framework refers to the means of implementation to reduce risks to disasters, this cannot be divorced from biodiversity. The CBD notes "our broken relationship with nature also increases the likelihood of tragedies, as ecosystem degradation drives disaster risk and makes us increasingly vulnerable. But natural hazards don't need to result in human and environmental disasters. Our planet has a natural defence system that, when cared for properly, pro-

53 UNIDO. SIDS Strategy. Available online at: unido.org/sids

54 ACS. The Addis Ababa Action Agenda and the Caribbean. Available online at: acs-aec.org/index.php?q=disaster-risk-reduction/the-addis-ababa-action-agenda-and-the-caribbean

55 OECD. Making Development Cooperation Work for Small Island Developing States. Available online at: oecd-ilibrary.org/sites/9789264287648-1-en/index.html?itemId=/content/component/9789264287648-1-en

56 Sendai Framework for Disaster Risk Reduction 2015-2030. Available online at: preventionweb.net/files/43291_sendaiframeworkfordren.pdf

57 Ibid

58 Ibid

fects us — biodiversity⁵⁹.” Therefore, to move forward on building resilience to disasters, biodiversity conservation must be part of disaster management strategy. To meet the goals espoused in the Sendai Framework, there must be alignment with biodiversity frameworks, and a similar recognition of SIDS with specific needs and capacities to help attain broader sustainable development goals.

Perhaps most significantly, SIDS have played a key role UNFCCC processes, and driven much of the global recognition and action on climate change issues⁶⁰. SIDS have historically played a leadership role in the climate change conversation: Maldives was one of the first to host Ministerial Declarations on the Impacts of Climate Change; Vanuatu submitted the first outline of elements for a Convention; Mauritius, was the first state to ratify the Convention, followed quickly by Seychelles and the Marshall Islands⁶¹. Trinidad and Tobago, sponsored the AOSIS Protocol that spurred the Berlin Mandate process; Fiji and Antigua and Barbuda, the first to ratify the Kyoto Protocol; the many other island states have delegations that contribute tirelessly in UNFCCC processes⁶².

Based on the tradition of the United Nations, Parties are usually organized into five regional groups, (African States, Asian States, Eastern European States, Latin American and the Caribbean States, and the Western European and Other States), but in the UNFCCC the five regional groups, are not usually used to present the substantive interests of Parties; other groupings are more important for climate negotiations, one of which is the SIDS grouping⁶³. SIDS Parties are united by the threat that climate change poses to their survival and frequently adopt a common stance in negotiations (e.g. they were the first to propose a draft text during the Kyoto Protocol negotiations calling for cuts in carbon dioxide emissions of 20% from 1990 levels by 2005)⁶⁴.

In 1991, the Alliance of Small Island States (AOSIS) was formed, in recognition of that small island and low-lying coastal developing countries had been marginalized and needed a greater voice. Through AOSIS, SIDS were instrumental in pushing the climate change agenda forward⁶⁵, and collaborating for common aims. This mechanism allows individual SIDS greater leverage in a political arena where they could be less voice. An example of

this leverage is that it was Papua New Guinea that brought Reduced Emissions from Deforestation and Degradation (REDD)⁶⁶ into discussions during the December 2007 UN Climate Change Conference in Bali, Indonesia. Through negotiations, leveraging support across SIDS, Papua New Guinea was able to pull the United States into the Kyoto process⁶⁷. Similarly, AOSIS was a leader in proposing the establishment of an international insurance pool—a collective loss-sharing scheme to compensate victims of sea-level rise to be funded by mandatory contributions from industrialised countries based on GNP and on relative greenhouse gas (GHG) emissions (contributions to the fund would be based on ability to pay as well as responsibility for impacts)⁶⁸.

AOSIS continues to be a driver in the climate change context, and lessons can be drawn with how this mechanism has given SIDS the space to advocate, educate and ensure that SIDS-specific considerations are folded into climate deliberations. No such grouping formally exists within the CBD. The CBD Secretariat has facilitated the collaborations among SIDS by providing meeting rooms. The CBD also houses the Island Biodiversity

59 CBD. Biodiversity Our Natural Safety Net. Available online at: cbd.int/biodiversity-day/solutions/natural-disaster-mitigation

60 UNFCCC. 2005. Climate Change, Small Island Developing States. Issued by the Climate Change Secretariat, Bonn, Germany. Available online at: unfccc.int/resource/docs/publications/cc_sids.pdf

61 Ibid

62 Ibid

63 UNFCCC. Party Groupings. Available online at: unfccc.int/process-and-meetings/parties-non-party-stakeholders/parties/party-groupings

64 UNFCCC. Party Groupings. Available online at: unfccc.int/process-and-meetings/parties-non-party-stakeholders/parties/party-groupings

65 UN Chronicle. Sadat, Nemat. Small Islands, Rising Seas, 2009. Available online at: un.org/en/chronicle/article/small-islands-rising-seas

66 The REDD forests-for-carbon credits initiative is meant to reduce emissions in developing countries by funding conservation, reforestation and poverty reduction while fighting climate change)

67 As quoted by Professor Graciela Chichilnisky of Columbia University who was involved in the drafting of the Kyoto Protocol told the UN Chronicle, “While Papua New Guinea is a very tiny nation, it essentially pulled the United States into the Kyoto process with its intervention and accepted reforestation in exchange for carbon credits”. On the last day of the Bali conference, Kevin Conrad, a member of the Papua New Guinea delegation, responded after Paula Dobriansky, a U.S. delegate, noted any unwillingness by the U.S. to support the Bali Road Map. (The Map charts the course for a new negotiating process designed to tackle climate change, with the aim of completing this by 2009.) Mr Conrad interjected, “There is an old saying: if you are not willing to lead, leave it to the rest of us. Please get out of our way.” The room flooded with applause and several minutes later, Ms Dobriansky reversed the position of the U.S. Reported by the UN Chronicle; available online at: un.org/en/chronicle/article/small-islands-rising-seas

68 UNFCCC. 2019. AOSIS Submission on the 2019 Review of the WIM. Available online at: www4.unfccc.int/sites/SubmissionsStaging/Documents/201911270518---AOSIS%20submission%20on%20the%202019%20review%20of%20the%20WIM_27_November_2019.pdf

Programme of Work, whose work is focused on seven focal areas⁶⁹:

1. Protect the components of biodiversity
2. Promote sustainable use
3. Address threats to biodiversity
4. Maintain goods and services from biodiversity to support human well-being
5. Protect traditional knowledge and practices
6. Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources
7. Ensure provision of adequate resources.

The activities under the aforementioned are mainly channelled through the Global Island Partnership (GLISPA), which has been recognized by the COP as one of the mechanisms to implement the island biodiversity programme of work (decision IX/21)⁷⁰. GLISPA's mission is to "promote action to build resilient and sustainable island communities by inspiring leadership, catalyzing commitments and facilitating collaborations for all islands⁷¹".

The Island Biodiversity Programme and GLISPA programmes address all islands. This provides other benefits, but as seen from various international processes specifying SIDS' circumstances and groupings, there is value in addressing SIDS specifically to meet targeted concerns for global sustainable development. These are explored in the following sub-section.

2.3 Growing Risks/Threats for SIDS

The concept of vulnerability has been highlighted several times in previous sections. To further discuss access to and constraints related to means of implementation (Section 3), it is useful to provide a snapshot of the specific threats and risks faced by SIDS, to contextualize how these impede biodiversity efforts.

2.3.1 Climate Threats

Climate change presents unique challenges to SIDS, where the challenges to cope are exacerbated because of small geographical area, isolation, and high levels of exposure⁷². SIDS are likely to suffer most from adverse effects from climate change, and in some circumstances, even become uninhabitable⁷³.

The associated development challenges from sea-level rise, altered rainfall patterns, and storm-surges threaten to degrade or reverse biodiversity protection efforts. Hazards associated with the ocean and cryosphere including sea level rise, tropical cyclones, and marine heatwaves are of particular concern, impacting marine and coastal biodiversity, and the safety and security of those living and relying on those ecosystems. SIDS have large ocean territories meaning that significant marine resources and biodiversity are highly exposed to climate change⁷⁴.

Climate change is predicted to increase the intensity of cyclones and hurricanes in the Pacific and the Caribbean. Research indicates that 10 to 20 cm of sea-level rise by 2050 will "more than double the frequency of extreme water-level events in the Tropics, impairing the developing economies of equatorial coastal cities and the habitability of low-lying Pacific Island nations⁷⁵." It is these types of climate disasters which have widespread and lasting socioeconomic, health and environmental impacts in SIDS. For example, Hurricane Maria in 2017 caused damages in Dominica totalling over 225% of the country's GDP, and displaced the entire population of Barbuda⁷⁶. Similarly, in the Pacific, Cyclone Winston in 2016 had severe impacts in Fiji, where over 60% of the population was affected, with 22% of the nation's housing either destroyed or damaged and over 130,000 people being displaced. Cyclone Pam, in 2015, affected over 70% of the population in Vanuatu, displaced 65,000 people, damaged 17,000 buildings--the estimated economic cost of Cyclone Pam on Vanuatu across all sectors was approximately 64% of the country's GDP⁷⁷.

Such disasters make it more challenging for SIDS to allocate resources and finances to more long-term biodiversity and sustainable development interventions, as disasters require immediate responses and action.

69 CBD. 2012. Island Biodiversity Programme of Work. Available online at: cbd.int/island/pow.shtml

70 Ibid

71 GLISPA. About Our Global Island Partnership. Available online at: glispa.org/about

72 UNDP. 2010. Responding to Climate Change in Small Island Developing States. Available online at: [sustainabledevelopment.un.org/content/documents/960SIDS_Flyer_SEPT_27_09\[1\].pdf](http://sustainabledevelopment.un.org/content/documents/960SIDS_Flyer_SEPT_27_09[1].pdf)

73 UNFCCC. Climate Change: Small Island Developing States. Available online at: unfccc.int/resource/docs/publications/cc_sids.pdf

74 UNDP. Lopez-Calva, L. 2018. Finance, Partnerships and Innovation: Large Ocean States Pave the Way to the 2030 Agenda. Available online at: undp.org/blog/finance-partnerships-and-innovation-large-ocean-states-pave-way-2030-agenda

75 Vitousek, S., Barnard, P., Fletcher, C. et al. Doubling of coastal flooding frequency within decades due to sea-level rise. *Sci Rep* 7, 1399 (2017). Available online at: doi.org/10.1038/s41598-017-01362-7

76 UNDP. Lopez-Calva, L. 2018. Finance, Partnerships and Innovation: Large Ocean States Pave the Way to the 2030 Agenda. Available online at: undp.org/blog/finance-partnerships-and-innovation-large-ocean-states-pave-way-2030-agenda

77 Hare, B., Schleussner, C.F, Serdeczny, O., Saeed, F. Thomas, A., Zamarioli, L. 2017. A Year of Climate Extremes: A Case for Loss and Damage at Cop 23. Available online at: climateanalytics.org/blog/2017/a-year-of-climate-extremes-a-case-for-loss-damage-at-cop23/#fn4889688486169db910c28e-1

Crisis situations can also fuel increased demands for natural resources, degradation of ecosystems, as people seek shelter, sustenance and quick livelihoods to compensate for loss. This was manifested in Haiti, when in the aftermath of Hurricane Matthew, isolated communities in the Parc Macaya protected area, resorted to degrading practices for survival⁷⁸.

SIDS have actively engaged to advance the climate agenda globally, which can serve as a model for mobilization on biodiversity issues.

AOSIS has been a strong negotiating group in the UNFCCC, highlighting that although they are negligible contributors to anthropogenic climate change, they are among the most vulnerable to its impacts. The AOSIS “1.5°C to Stay Alive” campaign was one of the driving forces behind including 1.5°C as part of the global temperature goal in the 2015 Paris Agreement⁷⁹.

The intersection between biodiversity and climate change is key to emphasize in the post-2020 context, as it will open up greater

funding avenues, and increase salience of biodiversity issues. For as much as climate change impacts can destroy coastal ecosystems and even lead to extinctions of endemic and endangered species⁸⁰, investments in coastal ecosystems such as saltmarshes, mangroves, vegetated dunes, reforestation, seagrasses build adaptive capacity to face climate change. For results in both the biodiversity and climate change agendas, one has to reinforce the other in SIDS.

2.3.2 Economic Threats

Summary: Economic Threats

- In SIDS, damage from natural disasters can have pervasive economic impacts, as the bulk of territory can be impacted at the same time, affecting numerous sectors, segments and communities simultaneously. SIDS on average experience 2.1 % of GDP loss due to disasters annually
- Compensating for disasters exacerbates the already high debt-to-GDP ratio.
- Increasing disasters pose risks to post-crisis financing mobilized through donors.
- SIDS face challenges in mobilizing domestic resources and accessing capital markets which limits resources for sustainable development.
- Cost of delivering assistance in SIDS is higher than in developing countries.
- Concessional financing and grants are challenging for SIDS to absorb or get accredited for
- Lack of economic diversification poses risks if key sectors are impacted by shocks such as the COVID-19 pandemic
- Investments in biodiversity will yield benefits in associated sectors
- As a group SIDS manage vast ocean resources and exclusive economic zones, which give them significant clout
- Estimates indicate that SIDS are at least 35% more vulnerable to external economic and financial shocks than other developing countries.

As ocean economies, SIDS can leverage ocean resources in a variety of ways e.g. for fisheries; oil, gas and marine manufacturing,

mining and construction; or use of oceans for tourism, education and shipping. Emerging ocean-based industries such as offshore wind,

tidal and wave energy; marine aquaculture; seabed mining for metals and minerals and marine biotechnology, are also gaining traction⁸¹. Yet, the most pervasive

78 UNEP. 2018. Macaya Grand Sud-Phase II Project Document

79 Benjamin L, Thomas A. 2019. 1.5 to stay alive? AOSIS and the Long Term Temperature Goal in the Paris Agreement. Available online at: ssrn.com/abstract=3392503 7

80 Kumar L., Jayasinghe, S., Gopalkrishnan, T. 2020. Climate Change and Impacts on Biodiversity on Small Islands. In: Kumar L. (eds) Climate Change and Impacts in the Pacific. Springer Climate. Available online at: doi.org/10.1007/978-3-030-32878-8_12

81 OECD. 2016. The Ocean Economy in 2030. OECD Publishing, Paris

ocean-based sectors are typically coastal tourism and fisheries⁸².

However, given the vulnerabilities SIDS are exposed to, they face economic challenges and risks, which pose impediments to implementing biodiversity objectives.

Natural Disasters

Disasters, in addition to the loss of life, infrastructure and livelihoods, are an incredibly high economic cost for SIDS to bear. In larger states, damages from natural disasters can be more localized and represent a relatively smaller share of the economy. In SIDS, natural disasters present a systemic risk, as the bulk of territory can be impacted at the same time⁸³. An aspect of this can be captured by noting changes in GDP.

The increasing frequency of severe storms and disasters cause ongoing economic stress. SIDS on average experience 2.1 % of GDP loss due to disasters⁸⁴. In contrast, other countries face an average of 0.3 % of GDP annual costs due to natural disasters. Caribbean SIDS experience the highest damage in terms of their GDP due to disasters-between 1970 and 2018 natural disasters have caused, on average,

an annual damage of equivalently 2.8 % of GDP⁸⁵. Since 1970 it is estimated that SIDS have lost USD 153 million to climate-related events⁸⁶. While GDP losses do not capture the full extent of social, environmental and human costs of disasters in SIDS⁸⁷, they provide a window into economic losses that have to be borne, managed and accounted for. As noted by the OECD, even islands that manage to achieve high income levels, “remain one exogenous shock away from a development crisis with long-lasting effects due to their size, remoteness and natural vulnerabilities”⁸⁸.

Debt and Post-Crisis Financing

A related result in compensating for disasters, is that SIDS struggle with exceedingly high debt-to-GDP ratios⁸⁹. This poses threats to future investments, to the financing of sustainable development actions and threatens SIDS’ capacities to withstand compounding crises.

Ongoing crises also pose risks to future post-crisis financing. The costs of multiple disasters challenges donor countries to leverage ongoing resources for reconstruction and development activities⁹⁰. With the anticipated increases of climate-related natural disasters, there is a risk that sufficient funds will not

be available to support all SIDS undergoing rehabilitation, possibly leading to social inequalities, poor policy outcomes, and the forgoing of investments in crucial sectors.

SIDS also face significant challenges in mobilizing domestic resources and accessing capital markets⁹¹, limiting resources for sustainable development. They tend to have small and erratic domestic revenues, which pose challenges given the high costs in providing public services and the fiscal impacts of natural disasters⁹².

Grants and Concessional Loans

Grants and concessional loans are leveraged for development financing in many SIDS. However, absorptive capacity, onerous processes for accreditation⁹³, and a lack of human resources available to apply/manage concessional finance, remains an issue. As noted by the OECD, on average, SIDS rely on a single provider for 46 % of their concessional finance⁹⁴.

It is also worth noting that SIDS receive 3 % of global official development assistance (ODA), which due to their small populations, in per capita terms amounts to 3.8 times more than

82 Ibid

83 Cebotari and Youssef, 2020, quoted in Multiple Disasters and Debt Sustainability in Small Island Developing States. UNCTAD Research Paper No. 55, 2020. Available online at: unctad.org/webflyer/multiple-disasters-and-debt-sustainability-small-island-developing-states

84 UNCTAD. 2020. Multiple Disasters and Debt Sustainability in Small Island Developing States. UNCTAD Research Paper No. 55. Available online at: unctad.org/webflyer/multiple-disasters-and-debt-sustainability-small-island-developing-states

85 Ibid

86 UNDP. Meddeb, R. Small Island Developing States do not Have the Luxury of Time. Available online at: undp.org/blog/small-island-developing-states-do-not-have-luxury-time

87 UNEP. UNEP 2014. Emerging issues for Small Island Developing States. Results of the UNEP Foresight Process. United Nations Environment Programme (UNEP), Nairobi, Kenya

88 OECD. 2018. Making Development Co-Operation Work for Small Island Developing States. Available online at: oecd.org/dac/making-development-co-operation-work-for-small-island-developing-states-9789264287648-en.htm

89 UNDP. Meddeb, R. Small Island Developing States do not Have the Luxury of Time. Available online at: undp.org/blog/small-island-developing-states-do-not-have-luxury-time

90 UNCTAD. Multiple Disasters and Debt Sustainability in Small Island Developing States. UNCTAD Research Paper No. 55, 2020. Available online at: unctad.org/webflyer/multiple-disasters-and-debt-sustainability-small-island-developing-states

91 OECD. 2018. Making Development Co-Operation Work for Small Island Developing States. OECD Publishing, Paris. Available online at: oecd.org/dac/making-development-co-operation-work-for-small-island-developing-states-9789264287648-en.htm

92 Ibid

93 Ibid

94 Ibid

other developing countries. However, the cost of delivering assistance in a SIDS context is estimated to be 4.7 times higher than in other developing countries⁹⁵.

Economic Diversification and Opportunities

The lack of diversification of economic sectors, also poses a threat. SIDS are disproportionately dependent on one or two industries. In Saint Lucia, for instance, tourism accounted for 40% of the GDP before the COVID-19 pandemic. Any given disaster or shock, such as the pandemic, puts the entire economy at risk.

Despite these economic risks, it is worth noting that successful

biodiversity initiatives can in fact boost key sectors of the economy, such as tourism. In research conducted by Teelucksingh and Watson in the Caribbean, it was noted that biodiversity conservation policies, appear to have a positive impact on the tourism industry. They note that a 1% reduction in marine protected areas, terrestrial protected areas and key biodiversity sites will result in a decline in tourist arrivals of 5.6 %, 2.5 % and 8.6% respectively⁹⁶. This type of data is essential to engage various sectors of society to obtain not only their buy-in, but their participation in biodiversity protection.

While mentioning the economic vulnerabilities that SIDS face, one

would be remiss not to recognize the economic clout that SIDS have as a group, and the vast ocean resources they manage within their jurisdiction⁹⁷. Through exclusive economic zones (EEZs) governed by SIDS, they manage about 30% of all oceans and seas and have around 24,111 km² in total land area and 666,110 km² in EEZs, through which they can leverage great economic influence. SIDS are becoming leaders on the international sustainable ocean agenda⁹⁸.

For additional information on how economic conditions are posing threats to SIDS, please refer to Section 3.1.1.

2.3.3 External Shocks and COVID-19

Summary: External Shocks and COVID-19

- Estimates indicate that SIDS are at least 35% more vulnerable to external economic and financial shocks than other developing countries (UNCTAD)
- SIDS are among the most impacted countries by the COVID-19 crisis; SIDS economies are anticipated to contract more so than developing countries
- Decreases in tourism, remittances, commodity prices, pose severe threats to the economy, debt levels and solvency.
- External shocks are experienced sharply in SIDS due to inability to absorb shocks.

SIDS are vulnerable to external shocks beyond climate disasters. Estimates indicate that SIDS are at least 35 % more vulnerable to external economic and financial shocks than other developing countries⁹⁹.

The COVID-19 pandemic has been an external economic shock, whose impact has to be considered when addressing means of implementation for biodiversity conservation, as it will affect all sectors. SIDS are among the most impacted countries by COVID-19

economic crisis¹⁰⁰. SIDS economies are anticipated to contract more so than developing countries¹⁰¹.

The drop in tourism and lower demand for exports, has revealed the vulnerability and volatility of SIDS economies. According to UNCTAD

95 Ibid

96 Teelucksingh, S.S. and P.K. Watson. 2013. 'Linking tourism flows and biological biodiversity in Small Island Developing States (SIDS): evidence from panel data', Environment and Development Economics

97 IISD. 2021. Mead, L., Small Islands: Large Oceans: Voices on the Frontlines of Climate Change. Available online at: iisd.org/system/files/2021-03/still-one-earth-SIDS.pdf

98 OECD. 2021. COVID-19 Pandemic: Towards a Blue Recovery in Small Island Developing States. Available online at: oecd.org/coronavirus/policy-responses/covid-19-pandemic-towards-a-blue-recovery-in-small-island-developing-states-241271b7/

99 UNCTAD. 2021. Small Island Developing States Face Uphill Battle in COVID-19 Recovery. Available online at: unctad.org/news/small-island-developing-states-face-uphill-battle-covid-19-recovery

100 OECD. 2021. COVID-19 Pandemic: Towards a Blue Recovery in Small Island Developing States. Available online at: oecd.org/coronavirus/policy-responses/covid-19-pandemic-towards-a-blue-recovery-in-small-island-developing-states-241271b7/

101 IMF. 2020. World Economic Outlook Database. Available online at: oecd.org/coronavirus/policy-responses/covid-19-pandemic-towards-a-blue-recovery-in-small-island-developing-states-241271b7/#section-d1e309

estimates, a decline in tourism by 25 % will result in a fall of GDP by 7.3 % in SIDS¹⁰². The OECD notes that tourism-dependent SIDS are anticipated to suffer severe GDP contractions:

“in Antigua and Barbuda, Belize, Fiji, Maldives and Saint Lucia, GDP is expected to shrink by 16% or more, making the current crisis the worst in recorded history. For fisheries-dependent SIDS – such as Comoros, Kiribati, Marshall Islands, Micronesia and Tuvalu – expect GDP drops range between 0.5 % (Tuvalu) and 4.5 % (Marshall Islands)¹⁰³.”

Decreases in commodity prices

are also likely to negatively impact Papua New Guinea and Timor-Leste, which are likely to observe a decrease in GDP by 3.3 % and 6.8 % respectively, with a decline in public revenues due to decreases in export earnings¹⁰⁴. Economic challenges in SIDS will likely be exacerbated by the overdependence on few economic sectors, high fiscal deficits and public debt levels, and constraints in mobilising public and private finance¹⁰⁵.

In addition to falling tourism revenues, it is anticipated that remittances will decline, as pandemic-related economic challenges are felt around the world. There is the threat looming that there may solvency

issues as net interest payments exceed current account inflows¹⁰⁶. In this context, any disaster with a decrease in GDP could have dire consequences, with burgeoning external debt. While the SAMOA Pathway highlighted the need for international assistance to address the unique set of challenges SIDS face, SIDS are among the most indebted developing countries in the world.

External shocks are severe to SIDS due to their lack of buffers to absorb the shocks. Without economies of scale, economic differentiation, any disaster, poor harvest, or closure of a major industry could devastate the economy¹⁰⁷.

2.3.4 Demography

Summary: Demographic Pressures on Biodiversity

- SIDS have experienced rapid demographic growth in recent years
- Populations settling in rapidly urbanizing coastal cities, pose threats to fragile environments
- Balancing development with environmental goals is challenging
- Increased consumption and changes in lifestyle strain the carrying capacity of small islands

In recent years, SIDS have experienced demographic growth, stressing natural environments. Most SIDS have small yet growing populations, generally between 100,000 and 700,000 people, who live mostly in rapidly urbanizing areas along fragile coasts. 30% of Pacific Islanders and 60% of Caribbean people now live in towns and cities, putting pressure on coastal resources¹⁰⁸.

As noted in the Bahamas, pressures related to population growth and increased poverty levels are undermining environmental programmes, therefore balancing development with environmental protection creates many challenges to implement environmental goals¹⁰⁹.

Similar observations are noted in the Marshall Islands, where the

main threats to the sustainable use of biodiversity resources identified by stakeholders are due to overpopulation and changing lifestyles. As the population increases beyond the carrying capacity of the environment and society, a several changes have occurred. These include increased pollution and waste, and unsustainable exploitation of resources¹¹⁰.

102 UNCTAD. 2020. Multiple Disasters and Debt Sustainability in Small Island Developing States. UNCTAD Research Paper No. 55. Available online at: unctad.org/webflyer/multiple-disasters-and-debt-sustainability-small-island-developing-states

103 OECD. 2021. COVID-19 Pandemic: Towards a Blue Recovery in Small Island Developing States. Available online at: oecd.org/coronavirus/policy-responses/covid-19-pandemic-towards-a-blue-recovery-in-small-island-developing-states-241271b7/

104 Ibid

105 Ibid

106 UNCTAD. 2020. Multiple Disasters and Debt Sustainability in Small Island Developing States. UNCTAD Research Paper No. 55. Available online at: unctad.org/webflyer/multiple-disasters-and-debt-sustainability-small-island-developing-states

107 Baldacchino, G. Small Island States; Vulnerable, Resilient, Doggedly Perseverant or Cleverly Opportunistic? 2014. In *Etudes Caribeenes*. Issue 27-28

108 GEF. GEF and Small Island Developing States. Available online at: openknowledge.worldbank.org/bitstream/handle/10986/14831/333380ENGLISH0GEF1SIDS.pdf?sequence=1&isAllowed=y

109 Government of the Bahamas. 2011. Fourth National Biodiversity Report of the Bahamas to the UNCBD

110 Republic of the Marshall Islands. 2020. Sixth National Report Convention on Biological Diversity

2.3.5 Invasive Alien Species and Agriculture

Summary: Invasive Alien Species (IAS) and Agriculture

- IAS is a major driver of biodiversity loss in SIDS
- Island ecosystems are extremely vulnerable to newly introduced pathogens/pests, which can spread rapidly and endanger biodiversity
- Regional strategies to target IAS have been developed but capacity issues remain
- Biodiversity plays a key role in food production; but agricultural practices can lead to degradation of biodiversity
- Deforestation, chemical contamination, destructive agricultural and land-use patterns, pollution, and ineffective waste management as a result of agricultural practices are some of the major environmental threats confronting SIDS

Invasive Alien Species (IAS)

Invasive alien species (IAS) alongside climate change are two major drivers of biodiversity loss in SIDS¹¹¹. This threat is acute in SIDS given the particularly high vulnerability, limited capacity to manage IAS, and a small geographic area that could be rapidly covered by IAS. In isolated island ecosystems, newly introduced pathogens or predators can rapidly endanger species that did not coevolve with the newcomer¹¹². Climate change is further likely to exacerbate the spread of IAS, and act as a stressor that could increase the risk of extinction of both terrestrial and freshwater species¹¹³. In São Tomé & Príncipe for example, invasive species of mammals (including Mona monkey - *Cercopithecus mona*, black rat - *Rattus rattus*, and African civet - *Civettictis civetta*) occur on both islands and are considered a threat to endemic species¹¹⁴.

IAS is a huge problem for the Caribbean region. In 2003 alone, 552 IAS were found in the Caribbean. The hibiscus mealybug, for instance, moved from Grenada to almost the entire Caribbean region over a period of about seven years¹¹⁵. As a response the Caribbean region has initiated numerous projects and partnerships such as the Caribbean Invasive Species Working Group (CISWG), which the CARICOM Council for Trade and Economic Development (COTED) has formally mandated to develop regional strategies for managing invasive species. There is also the Invasive Species Specialist Group of the IUCN/Species Survival Commission (ISSG) to help reduce threats to natural ecosystems¹¹⁶. The Centre for Agriculture and Biosciences International (CABI) developed the Invasive Species Compendium to provide encyclopedic information

about IAS and their threats to the environment and livelihoods¹¹⁷. Despite many of these projects and interventions, many challenges remain in the Caribbean due to capacity issues that will be highlighted in Section 3.

Similarly, in the Maldives, invasive species of algae *Caulerpa racemosa* have been identified on the reefs¹¹⁸. It was suggested that this species has the potential to out-compete certain coral species leading to death of corals. Maldives has already experienced widespread destruction of coconut palms by the coconut hispid beetle where uncontrolled imports of plant matter had devastating effects on local biodiversity. The Maldives is frequented by ships from all over the world, and water discharge is thought to be a major pathway to the introduction of invasive alien species¹¹⁹.

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- 111 UNEP. 2014. Emerging issues for Small Island Developing States. Results of the UNEP Foresight Process. United Nations Environment Programme (UNEP), Nairobi, Kenya
- 112 Meenakshi, P. 2012. Elements of Environmental Science and Engineering, Second Edition. Asoke Ghosh, Delhi
- 113 IPCC. 2014
- 114 Democratic Republic of Sao Tome & Principe. 2019. VI National Biodiversity Report
- 115 St. Kitts & Nevis. 2019. 6th National Report to the Convention on Biological Diversity
- 116 IUCN. Invasive Alien Species. Available online at: iucn.org/commissions/ssc-groups/cross-cutting/invasive-species
- 117 St. Kitts & Nevis. 2019. 6th National Report to the Convention on Biological Diversity
- 118 Maldives. 2019. 6th National Report on the Convention on Biological Diversity
- 119 Ibid

Agriculture and Food Production

Biodiversity and ecosystem functions play a significant role in food production. However, the breakdown and changes in traditional agro-ecosystems and loss of associated biodiversity and ecosystem functions poses threats to food security¹²⁰. Yet, this issue is not adequately addressed in SIDS.

Coastal areas are often degraded by increased land-based sources of pollution, degradation of critical habitats, and unsustainable exploitation of natural resources.

Deforestation, chemical contamination, destructive agricultural and land-use patterns, pollution, and ineffective waste management as a result of agricultural practices are some of the major environmental threats confronting SIDS. Heavily dependent on revenues from tourism, many small island nations have sought to develop their fragile coastal areas rapidly. However, aggressive coastal development, along with overfishing, pollution, and the spread of alien species, have played a major role in destroying and degrading valuable coastal and marine ecosystems.

In the Maldives, for instance, the agriculture sector employs large amounts of chemical fertilisers, insecticides and pesticides in commercial agriculture¹²¹. The use of such chemicals results in chemical accumulation in food, soil and ground water and builds resistance in pests. The use of agro-chemicals contaminates the ground water aquifers and affect coral reef habitats through runoffs. The types of crops grown and the quality of soil in Maldives are limited, so threats to could lead to loss of habitat, species and ecosystems¹²².

120 UNEP 2014. Emerging issues for Small Island Developing States. Results of the UNEP Foresight Process. United Nations Environment Programme (UNEP), Nairobi, Kenya

121 Maldives. 2019. 6th National Report on the Convention on Biological Diversity.

122 Ibid



3. Means of Implementation

The means of implementation to achieve biodiversity goals are as strategic as the biodiversity targets themselves, for it is the means which allow the changes and transformations necessary to achieve biodiversity goals. The next sub-sections will examine the gaps, challenges, constraints and successes in means of implementing biodiversity objectives, as outlined in the post-2020 Biodiversity Framework.

3.1. Implementation Support Mechanisms

This section will highlight the constraints that SIDS face in the areas of accessing financial mechanisms and mobilizing resources for biodiversity protection; capacity development to meet biodiversity goals; and technical and scientific cooperation, technology transfer, and knowledge management. Each of these areas will be further explored to examine the variety of ways in which the constraints manifest, with country examples.

3.1.1 Financial Mechanisms and Resource Mobilization

SIDS are truly resourceful when it comes to mobilizing resources for their development, given how limited their economic base has historically been. This includes bilateral and multilateral ODA, offshore banking and financial services, the receipt of remittances, the sale of citizenship, internet domains, rent-driven services — such as tourism, second home residences, tele-communications infrastructure, military bases, detention facilities, and trans-shipment depots¹²³. Despite these, at times, innovative sources of capital, financial constraints remain the most identified constraint in progressing on the CBD for SIDS.

Under the CBD, preliminary targets for resource mobilisation were established in 2012, and revised targets were adopted in 2014. These targets include doubling total biodiversity-related international finance flows to developing countries by 2015, developing national financial plans for biodiversity, reporting domestic

biodiversity expenditures, funding needs, gaps and priorities, and mobilising domestic financial resources from all sources. This was in line with the recommendations of the Intergovernmental Committee of Experts on Sustainable Development Financing and the development co-operation principles enshrined in the Paris Declaration on Aid Effectiveness (2005), the Accra Agenda for Action (2008), the Global Partnership for Effective Development Co-operation agreed in Busan (2011). These principles apply to all development cooperation and development finance, beyond biodiversity. Small island developing states (SIDS) and least developed countries (LDCs) were identified within CBD text as being priorities for international biodiversity finance¹²⁴. Paragraph 90 (c) of the Samoa Pathway also strongly supports “the efforts of small island developing States to access financial and technical resources for the conservation and sustainable management of biodiversity¹²⁵.”

3.1.1.1 Concessional Financing

Summary: Constraints in Accessing Concessional Financing

- SIDS have difficulty meeting eligibility criteria for grants due to middle or high-income country status
- Challenges in mobilizing high levels of co-financing required by granting mechanisms
- SIDS STAR allocations may not take into account that they have difficulty accessing other funds, so while it appears proportional based on income, LDCs may be able to attract other sources of funding which SIDS cannot
- Restrictive sectoral funding may not consider the integrated nature of biodiversity in other non-fundable sectors in SIDS
- Challenging application/proposal grants submission processes for countries with low human resources and data capacities
- Growing complexities with funds' approval systems are not well understood, by an already small staff

123 Baldacchino, G. Small Island States; Vulnerable, Resilient, Doggedly Perseverant or Cleverly Opportunistic? 2014. In *Études Caribéennes*. Issue 27-28

124 CBD. 2014. COP 12 Decision XII/3 paragraph 1(a)

125 UNSDG. SIDS Accelerated Modalities of Action (SAMOA) Pathway. Available online at: sustainabledevelopment.un.org/samoapathway.html

- Low prioritization of biodiversity within countries' efforts to seek out resources
- GEF project management cost limitations (5% of total budget) do not consider high costs for consultants, transportation, rental premises in SIDS
- Low levels of private sector investment
- Less access to donor funds due to limited staff to manage projects
- Project-based approaches not creating the structural changes and capacities needed for biodiversity protection
- Regional projects may strengthen regional organizations but may not serve local-level needs
- Lack of capacities exist in developing funding proposals
- Growing restrictions in donor funding challenges SIDS to use funds where most needed
- Biodiversity research/study expeditions to SIDS do not sufficiently share co-benefits with countries themselves
- Lack of coordination within government, and among multilateral partners does not allow SIDS to optimize on concessional funding

To date, the Global Environment Facility (GEF)¹²⁶ financial mechanism has funded the SIDS most significantly — the GEF invested \$1.37 billion in SIDS through 337 interventions; this reflects the full SIDS portfolio and not exclusively biodiversity-based initiatives¹²⁷. Under the GEF-7 funding cycle, the envelope for biodiversity was the highest of all other focal areas, at USD 1,031 million¹²⁸. GEF “enabling activities” — typically up to \$450,000 — have helped SIDS prepare biodiversity national inventories, strategies and action plans¹²⁹. The GEF-08 current draft document identifies a Blue and Green Integrated programme with specific reference to SIDS.

In a recent evaluation of the GEF, the value added on biodiversity in-

vestments have been observed: when comparing the outcomes from various projects, the main positive environmental impacts found in the projects evaluated, were in the areas of biodiversity (51 % of projects reviewed)¹³⁰. There are numerous country-level examples of how GEF financing has supported countries to meet their biodiversity goals/targets:

- In Antigua and Barbuda, GEF provided funding for the Sustainable Island Resource Management Zoning Plan (SIRMZ), which was adopted by Cabinet and guided the development of nation-wide Protected Areas system in the country. The GEF was also instrumental in Antigua and Barbuda designing a plan for the

effective management of a system of protected areas through the GEF-funded Path to 2020 project¹³¹. GEF support also went beyond government to Civil Society Organizations (CSOs), through the Small Grants Programme (SGP). According to a rapid survey of CSOs, from the period 2014-2018, GEF was the main source of their funding. Of the biodiversity-oriented CSOs interviewed, 69 % reported receiving GEF funding, 23 % received funding from international foundations¹³².

- In Cabo Verde, most financial resources for the environment and biodiversity conservation

126 The GEF provides financial resources for developing countries and countries with economies in transition to implement the CBD. The goal of the GEF's biodiversity strategy is to maintain globally significant biodiversity in landscapes and seascapes. To achieve this goal, GEF investments focus on three main objectives (i) Mainstream biodiversity across sectors as well as landscapes and seascapes; (ii) Address direct drivers to protect habitats and species; and (iii) Further develop biodiversity policy and institutional frameworks. Support is primarily focused on 1) sustainably managing biodiversity in productive landscapes and seascapes and ensuring that the impact of productive sectors on biodiversity is avoided, or substantially reduced or minimized; 2) enhancing the effectiveness and sustainability of protected area systems; 3) supporting the complete and effective implementation of the Cartagena and Nagoya Protocols; and 4) improving biodiversity policy, planning, and review.

127 GEF. 2021. GEF Support to SIDS. What, Why and How Effective? Available online at: gefio.org/sites/default/files/documents/synopsis/scce-sids-learning.pdf

128 GEF. 2018. Initial GEF-7 STAR Country Allocations. Available online at: thegef.org/sites/default/files/publications/GEF-C.55-Inf.03-GEF-7-STAR.pdf

129 GEF. 2004 GEF and Small Island Developing States. Available online at: openknowledge.worldbank.org/bitstream/handle/10986/14831/333380ENGLISH0GEF1SIDS.pdf?sequence=1&isAllowed=y

130 GEF. 2021. GEF Support to SIDS. What, Why and How Effective? Available online at: gefio.org/sites/default/files/documents/synopsis/scce-sids-learning.pdf

131 Antigua and Barbuda. 2019. 6th National Report on the for the Convention on National Biodiversity

132 Ibid

are directed through the GEF, multilateral funds, bilateral cooperation, philanthropic funds. One major initiative is the GEF financed (USD 3.6 million) project for the integration of biodiversity in the tourism sector. In addition, through the SGP, between 2016 to present date, about \$642,100 dollars were invested in biodiversity projects, while supporting smaller CSOs¹³³.

► In Palau, GEF funding played a key role in supporting the mainstreaming biodiversity in the Integrating Biodiversity Safeguards and Conservation into Planning and Development (USD 4,322,562).

Despite biodiversity funds being made available to countries, the performance of SIDS projects was lower than for the overall GEF portfolio on the dimensions of outcome performance, and project implementation and execution¹³⁴.

It is worth noting that while GEF financing is available there are a number of constraints and gaps which prevent SIDS from optimizing these funds:

► The System for Transparent Allocation of Resources (STAR) through which each eligible country accesses GEF funds (their indicative allocation) are based on GDP, as well as socio-economic circumstances. The GDP factor means that at times, SIDS which show high income per capita with low populations, may be at a disadvantage from larger countries. For instance, under the GEF 7 cycle, Kiribati had access to 3.14 million, Mauritius 4.24 million, and Bahamas to 4.76 million under the biodiversity portfolio. Countries like China and Colombia 33.85 and 39.10 million respectively. Granted those

countries have greater biodiversity needs and populations to contend with, but what the STAR allocation may not take into account is that SIDS may have a harder time mobilizing additional resources, and may lack the diversified economies required to support biodiversity conservation. Similarly, those funds may not take into account the inherent importance of biodiversity to economies, or the role of SIDS as custodians of ocean biodiversity. When looking at countries like Brazil which receives USD 52.88 million from the GEF for biodiversity work and supporting its fragile ecosystems, it is also important to consider that such countries are able to mobilize funding through other means such as the EU, private foundations, trade partners and entities, particularly for hot-button sites like the Amazon.

► Middle-or-high income SIDS may be receiving far less funds for biodiversity on a global scale—in some cases they may only be accessing resources from the GEF. While on paper middle-income and high-level income SIDS may be receiving proportional financial support, commensurate to their GDP, the fact is that some less developed countries may be receiving far more support through other mechanisms and sources. In the Bahamas for instance, biodiversity activities depend almost exclusively on funding provided under the Convention. However, because of its relatively high standard of living, The Bahamas is not always eligible for receiving other kinds of international funding. As a result, in the Bahamas once international funding is exhausted for biodiversity, continued support tends to fall for the initiatives as the government often does not provide

the ongoing financial support to sustain them¹³⁵. This may be a factor that is not fully considered in STAR allocations.

► There are costs related to GEF funding which can become constraints. One of the major issues that SIDS face, is the lack of biodiversity-related government staff. In some countries, there may be only one or two personnel (Kiribati in point), to manage all biodiversity activities, including reporting on the convention and overseeing projects. GEF project reporting can be onerous, creating costs and strains on small country teams.

Another constraint with GEF projects, are the limited costs allocated to project management (5% of project budget), which makes it difficult in SIDS to attract talent and establish strong project management teams. UN implementing agencies receive 9.5% of GEF project budget, and these funds do not finance project teams. The 5% cap on project management costs has to include all administrative personnel, rental cost for premises and equipment, audits, any project management related travel, and this leaves limited resources for staffing the project. This can lead to less experienced staff or high turnover due to low salaries, creating risk to project success. This may also increase costs to be borne by national programmes or staff, which have to supplement any gaps. This is especially an issue in mid-or high-income SIDS where rental costs for premises or consultant rates are high, or in SIDS with security concerns such as Haiti, where secure premises often cost more and allocations have to be made for security.

► Another constraint is that GEF

133 Cabo Verde. 6th National Report on the for the Convention on National Biodiversity

134 GEF. Independent Evaluation Office. Strategic Country Cluster Evaluation. Available online at: gefio.org/sites/default/files/documents/reports/scce-sids.pdf

135 Government of the Bahamas. National Capacity Self-Assessment of the Bahamas

projects do not take into account the high costs of transportation or travel in/to remote islands. Just getting international consultants to a site, or travel within the country, may require extensive flights, travel days, fuel costs which tax project budgets. This may lead to project budget designs which identify lower than actual costs for transportation or consultants, both of which pose risks to project success. As the 5% management fee is too small to include some of this travel, much of this is borne from component costs of a project budget, decreasing funds for on-the-ground activities.

►Co-financing, required by the GEF for project approval, is a huge problem for SIDS. The proportion of co-financing to be provided by countries has increased over the years, creating burdens on SIDS which do not have large private sector partners, other sources of project funding, or large programmes. Other GEF projects cannot be used for co-financing. It is understood that the GEF wants to anchor their projects into existing programmes that can bear projects for sustainability purposes. However, the co-financing ratio is an impediment for small economies. Supporting more than one project also becomes very challenging.

►Another issue is that the focal area's structure, or GEF IAS strategy may prevent certain issues of relevance to SIDS from being included in biodiversity projects. For instance, waste management and plastic pollu-

tion may not always be permitted under biodiversity focal area activities, but are in fact crucial to SIDS, especially given the impacts of terrestrial actions on the marine environment. The importance of waste is noted, for example, in Tuvalu's NBSAP which highlights the need of limiting waste to reduce negative impacts on biodiversity¹³⁶. Similarly, if IAS activities are seen as benefitting agricultural species and not native species, they are often removed from GEF projects during approval processes. However, IAS prevention for agricultural crops can have other positive outcomes leading to positive results for biodiversity (food security which creates less stresses on biodiversity, sustainable agriculture which supports native crops etc...).

►There are also regional GEF projects which serve several SIDS through one project. While these may serve to strengthen regional institutions and collaborations, they limit the interventions on the ground, often times preventing individual SIDS to make the most value of the resources at the local level.

The Global Climate Fund (GCF) is another significant financial mechanism through which SIDS access funding. Since 2015, 29 projects for a total of USD 818 million have been approved for SIDS. This represents a reasonable proportion of total approved finance, in consideration of per capita representation. However, it is noted that substantially less co-financing has been catalysed for SIDS compared to non-SIDS. More than half of GCF resources

approved for SIDS are for adaptation projects¹³⁷.

While the GCF is focused on climate impact, it does include considerations of biodiversity and ecosystem services for addressing climate change. The resilience of ecosystems and ecosystems services is one of its eight strategic results areas. The GCF's investment criteria also includes sustainable development, which encompasses biodiversity as a co-benefit¹³⁸.

Despite the possibility of accessing these funds, SIDS face considerable constraints in submitting and obtaining approval for projects. As a GCF evaluation notes: "SIDS have been underrepresented throughout the stages of pipeline development, with only 12 per cent of the funding proposal pipeline."¹³⁹ Some of the constraints in accessing GCF funding for biodiversity conservation include:

►The current GCF SIDS portfolio does not contribute significantly to other nationally determined contributions (NDCs) priorities, such as ecosystems protection, food security, fisheries¹⁴⁰, which have strong overlap and synergies with biodiversity. Funding is primarily for climate adaptation and may not benefit biodiversity interventions.

►GCF accreditation and project submission¹⁴¹ processes are challenging to understand. Currently, the training workshops to support project design do not build sustainable or sufficient capacity in SIDS for developing concept notes for submission.

136 Tuvalu National Biodiversity Strategy and Action Plan 2012-2016

137 GCF. Independent Evaluation of the Relevance and Effectiveness of the Green Climate Fund's Investments in Small Island Developing States. (2020) Available online at: ieu.greenclimate.fund/sites/default/files/document/201123-sids-final-report-top-web.pdf

138 GCF. Biodiversity and Climate Change: Convention on Biological Diversity meets with GCF. (2017) Available online at: greenclimate.fund/news/biodiversity-and-climate-change-convention-on-biological-diversity-meets-with-gcf

139 GCF. Independent Evaluation of the Relevance and Effectiveness of the Green Climate Fund's Investments in Small Island Developing States (2020). Available online at: ieu.greenclimate.fund/sites/default/files/document/201123-sids-final-report-top-web.pdf

140 Ibid

141 Ibid

► There is a lack of capacity to develop funding proposals and concept notes in SIDS. There are resource issues at play (having enough staff, cost of staff time, taking away from other priorities, cost of consultants), and capacity issues (technical knowledge, data/information gaps).

► GCF concept notes and submissions require a great deal of hard data to be approved. Given the lack of baseline data in many SIDS this poses an impediment to have projects approved.

► Programmatic approaches are identified in GCF evaluation, to have the potential to bring larger volumes of funding to individual countries in a multi-country programme. However, given the potential for high transaction/operational costs at country and entity level, SIDS are reluctant to pursue these until such risks are accounted for in projects¹⁴².

► Multi-country funding, as in the case of the GEF, can provide limited impact on the local level.

Challenges with the project-based financing for biodiversity

While SIDS require necessary financial supports to implement their project activities. There are several challenges related to project-based funding which need to be recognized:

► The project-based approach is not conducive to mid or long-term planning and often does not contribute to systemic changes in addressing biodiversity. As noted in Belize, projects that have a longer time frame and are institutionalized within programmes of work, appear to

have greater success. The Biodiversity Finance Initiative in Belize, for instance, seeks to make critical investments in long-term institutional capacities, strengthening capacities to respond to biodiversity needs.

► Projects are coming in with more restrictions and pre-conditions, of what activities can be conducted under them. This, at times, undermines the crucial investments that are needed to support long-term biodiversity initiatives for outputs that cannot be sustained in the long-run. In the Seychelles, for example, it is noted that there are needs for infrastructure and equipment, but these are challenging to obtain financing for through projects.

► Global focus on particular ecosystems can funnel financial resources, creating new disparities. It was noted during a regional workshop, that more funds are being made available for ocean/marine resources. In countries like the Seychelles, a decline in funding for terrestrial biodiversity is observed. SIDS are by nature, examples of ridge-to-reef living, and disparities in funding can undermine other investments. Interestingly, data reported by the OECD suggests that in general, the majority of biodiversity-related development finance targets terrestrial and freshwater biodiversity and only a small fraction is allocated to the conservation and sustainable use of marine (ocean) biodiversity¹⁴³. Regardless, of whether this focus is changing, what is clear is that SIDS need the freedom to prioritize their resource where they are strategically needed. SIDS should be able to allocate funds to ecosystems that they identify as strategic for long term sustainable development.

► SIDS by dint of their biodiversity and endemic genetic resources, are often the sites of various research and foundation-based projects and studies. Governments in SIDS cannot always access this funding or the knowledge products that result, nor can they drive these initiatives to address national biodiversity priorities. Improved knowledge management and sharing of co-benefits from these initiatives would greatly benefit SIDS. It is also worth noting, that such studies often do not build the capacities of local actors, instead much of the skills gained are retained within independent research institutes.

► Challenges and lack of collaboration within SIDS often act as impediments to accessing financial resources, and in some cases, spending them. The pace of implementation in SIDS is often slow, with slow intersectoral coordination¹⁴⁴. This means that there can be huge project delays, costs associated with project extensions, and a loss of momentum and time, with a lack of country ownership of initiatives. An example of this is apparent in Jamaica, where one project approval happened over a year ago, but the project has yet to start. Human resources challenges, leadership, clear articulation of ownership can aggravate delays.

► There is also an absence of coordination between environmental funds and multilateral partners, which has negatively impacted SIDS with small government administrations. There are often numerous and varied standards and procedures for finance delivery for environmental initiatives, which adds to the

142 GCF. Independent Evaluation of the Relevance and Effectiveness of the Green Climate Fund's Investments in Small Island Developing States. (2020) Available online at: ieu.greencclimate.fund/sites/default/files/document/201123-sids-final-report-top-web.pdf

143 OECD. 2020. A Comprehensive Overview of Global Biodiversity Finance. OECD Publishing, Paris

144 Singh, A. 2014. Environmental Governance in Small Island Developing States in *Annuaire de Integration*

burden on national staff. Among other constraints, having to manage multiple donors increases costs by having to employ dedicated staff to manage each donor's compliance regime¹⁴⁵.

➤ SIDS benefit from climate-related finance, given the intense vulnerability to climate change impacts. The GCF, Paris Agreement emphasize climate-related finance for SIDS. However, this funding does not include explicit allocations for biodiversity interventions. In a sense, this

de-prioritizes biodiversity both in the political agenda and vis-à-vis financing, as far more is obtained through climate change financing windows. Although biodiversity could be integrated very effectively within climate change financing, the salience of biodiversity does not attract the same passions and attentions, despite the fact that 'Nature-Based Solutions' are part of the Climate and Biodiversity agenda. This also has a snowball effect: more climate financing is made available, more financing channels

open up as countries develop the expertise and capacities to apply for and utilize climate financing, whereas biodiversity financing mechanisms are less explored. It is worth noting that some countries have expressed biodiversity as a more pressing need than support for climate change adaptation. Bahamas, for instance, notes in its National Capacity Self-Assessment (NCSA), that biodiversity came up more frequently as a thematic area of interest¹⁴⁶.

3.1.1.2 Trends in SIDS which Limit Resource Mobilization

Summary: Aspects of SIDS Limiting Resource Mobilization

- High debt-to-GDP ratio
- Shrinking GDP
- Disaster-prone; post-crisis financing challenging especially with multiple disasters
- Lack of biodiversity data available that would justify financing
- Incoherence with other policy instruments
- Remoteness of SIDS
- Tax system that does not collect for environmental purposes
- Inter-sectoral competition for funds; more lucrative sectors such as tourism benefitting at the cost of biodiversity
- Small/limited private sector
- Lack of staff capacity to mobilize resources.

With few exceptions, industrialization strategies in small island states have failed. Amongst the few exceptions – Barbados, Fiji, Mauritius – successes have been short-term¹⁴⁷. Historically, there has been a dependence on producing a limited range of cash crops, such as banana, cocoa, coffee, copra, ginger, guano, sugar, tobacco and vanilla, which are susceptible to global prices. The

dependence on foreign aid and remittances is high¹⁴⁸.

For many small island states, opportunities for development are typically regarded as minimal because of fragile ecosystems and a shortage of land, fresh water, and local energy supplies¹⁴⁹. Many resource mobilizing streams will be further negatively impacted by the COVID-19 pandemic, particularly

related to tourism. Mobilising sufficient finance for biodiversity is one of the key challenges to achieving biodiversity conservation and sustainable development objectives. Measurement challenges make it difficult to specify a precise number on the global biodiversity finance gap, but as the OECD notes: "there could be up to an order of magnitude shortfall compared to current biodiversity-related finance flows.

145 GCF. Independent Evaluation of the Relevance and Effectiveness of the Green Climate Fund's Investments in Small Island Developing States. (2020) Available online at: [ieu.greendclimate.fund/sites/default/files/document/201123-sids-final-report-top-web.pdf](https://www.greendclimate.fund/sites/default/files/document/201123-sids-final-report-top-web.pdf)

146 Government of Bahamas. 2005. National Capacity Self Assessment: Bahamas

147 Ibid

148 Ibid

149 Macpherson 2000 quoted in Baldacchino, G. Small Island States; Vulnerable, Resilient, Doggedly Perseverant or Cleverly Opportunistic? 2014. In *Etudes Caribeenes*. Issue 27-28

Filling the finance gap for biodiversity and ecosystem services will require scaling up finance from all sources, public and private, domestic and international¹⁵⁰. Bilateral and multilateral official development assistance (ODA) is a significant source of financing for biodiversity in SIDS¹⁵¹. This is particularly true for countries that typically allocate little domestic budget resources to biodiversity¹⁵².

There are several possibilities for SIDS' national governments to generate financing for biodiversity such as private sector generation of capital targeting sustainable production/fisheries; ministerial-level budget allocations for biodiversity actions; and environmental fiscal reforms (adjustments of taxes and financing for more biodiversity-friendly behaviour). In Papua New Guinea for instance, there is a Biodiversity Trust Fund plan to support the Protected Area Network through mechanisms such as biodiversity and ecosystem services offsets, green contributions such as levies and taxes, and donations and philanthropic contributions. The Papua New Guinea government will also develop small grant programs to deliver funding directly to support local communities in the establishment and management of Protected Areas¹⁵³.

Capacity Challenges in Resource Mobilization for Biodiversity

However, countries require capacity to fully identify their environmental challenges and priorities, as well as the means to implement them.

A lack of capacity can make it difficult for SIDS to pinpoint their most salient environmental challenges, and to identify the instruments best suited to address them. Attracting financial resources requires the skills and capacities to identify financial channels and mechanisms, establish the necessary protocols and procedures to apply to/foster resource mobilization activities, target resources in strategic areas for biodiversity protection, and measure/audit results to assess what results were yielded. These activities require a slew of capacities that are not readily available in SIDS due to limited pool of technicians.

Lack of capacitated staff, particularly on data generation, monitoring and evaluation, which could help justify future biodiversity investments is a major concern. In the Bahamas for instance, the lack of financial resources has had significant impacts on staffing. Lack of financial resources have meant that: it is difficult to hire staff and provide ongoing training to improve their knowledge, abilities and skills; there is difficulty to purchase the necessary material requirements such as equipment or up to-date computers to undertake long-term planning, affecting the capacity to gather knowledge, generate data, and communicate effectively¹⁵⁴. This inevitably creates a cycle: lack of financial resources prevent the retention, training or capacity building of staff and lack of staff is unable to justify and mobilize financial resources for biodiversity.

One of the crucial constraints to

achieving these domestic goals, is that biodiversity simply is not prioritized, and takes a backseat to other agenda. Often times, the ministries of environment, receive far less national budget allocations than the ministry of tourism, such as in the case of Jamaica, or agriculture or mining, which keeps the sector un-capacitated and weakened.

Other trends in SIDS which limit resource mobilization include:

➤ *High levels of external and public debt.* As touched upon in Section 1.4.2.2., SIDS' external debt is significantly higher than other developing countries¹⁵⁵. As UNCTAD notes: "Between 2000 and 2019, the external debt of SIDS rose by 24 percentage points (of GDP), while in developing countries debt fell by 6.2 points on aggregate. By 2019, external debt accounted for 62 % of GDP on average in SIDS, compared with 29 % for all developing countries and economies in transition." With pressures for debt repayment from public revenues, it is likely that public expenditures on biodiversity-related initiatives will suffer, especially if there are challenges to mobilize finance from trade or key sectors.

➤ *Shrinking of GDP.* UNCTAD notes that while the GDP of developing countries decreased by 3.3 %, that of SIDS decreased by around 9 %¹⁵⁶. The economy of Maldives, shrank by 20.4 %, the Bahamas by 14.5 % and Belize by 15.5 % in 2020¹⁵⁷.

150 OECD. 2015. Drutschinin, A & Ockenden, S. Financing for Development in Support of Biodiversity and Ecosystem Services. Available online at: oecd-ilibrary.org/docserver/5js03h0nwxmq-en.pdf?expires=1638122323&id=id&ac_name=quest&checksum=88ACD466E11E82205B78808A347A2EDF

151 Ibid

152 Ibid

153 IISD. 2020. Papua New Guinea Works to Improve Management of Protected Areas. Available online at: sdg.iisd.org/commentary/policy-briefs/papua-new-guinea-works-to-improve-management-of-protected-areas/

154 GoB. 2005. Bahamas National Capacity-Self-Assessment

155 UNCTAD. 2021. "Small island developing states need urgent support to avoid debt defaults". Available online at: unctad.org/news/small-island-developing-states-need-urgent-support-avoid-debt-defaults

156 Ibid

157 UNGA. 2021. Follow-up to and Implementation of the SIDS Accelerated Modalities of Action (SAMOA) Pathway and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small

► *Dependence on Tourism.* Tourism cannot be underestimated in the context of SIDS. As one of the fastest growing sectors in the world pre-COVID-19, tourism became the main economic activity for many SIDS, creating job opportunities and bringing in important income and foreign exchange earnings. Tourism is often one of the few activities for which location, coupled with natural and cultural resources, is a strong competitive advantage for SIDS. Tourism accounts for over one quarter of the GDP in at least seven SIDS and represents 9 % of the overall exports¹⁵⁸. Tourism also offer avenues by which to finance local-level biodiversity interventions, particularly through tourist taxes, entrance fees to protected parks and biospheres. Given, the impact of the pandemic, these sources of funding will suffer considerably adding to the existing biodiversity finance gap, which the OECD has identified is significant¹⁵⁹.

► *Challenges over mobilizing resources for biodiversity over sectoral interests.* There can be tensions between ministries of finance and environmental interests, which can constrain mobilizing funds for biodiversity. In some countries of the Caribbean there has been a push to allocate tourist taxes towards

environmental initiatives with little success. Often those funds are managed by the public purse towards sectors that have more political and economic clout¹⁶⁰.

► *Recovery/post-crisis financing constrain resources for biodiversity.* 38 SIDS represent over 30 % of countries with the highest relative annual losses due to disasters¹⁶¹. Large financial gaps exist in financing for recovery. As was noted by the World Bank, there is a significant gap between the planned recovery needs estimated in Post-Disaster Needs Assessments (PDNAs) and the actual financial resources mobilized to support SIDS in implementing the PDNA based recovery plans. In Haiti for instance, only 3.16 % of funds required for recovery needs were mobilized¹⁶².

► *Lack of biodiversity data and analysis.* Crucial data that could justify changing budgetary and economic policies is missing¹⁶³. This can lead to lost opportunity in valuing biodiversity, placing it higher on the national development agenda, or mobilizing financial resources for biodiversity protection.

► *Incoherence with other economic policy instruments.* Subsidization of sectors that could undermine biodiversity reflects

incoherence among policy instruments, adding greater stress to the limited financial resources mobilized for biodiversity – potentially adding greater biodiversity costs in the future. Incentives and subsidization of the agricultural, tourism, extractive or fisheries sectors could have negative impacts on ecosystems. For instance, in Belize, national incentives for the agricultural sector promote the growth and expansion of the sector. There is a fuel subsidy for the sugarcane industry (duty free fuel) and reduced duties on pesticides and zero-rated materials¹⁶⁴. Incentives, such as the latter, are not linked to national agricultural policies that promote environmental sustainability and are deemed disincentives for biodiversity conservation¹⁶⁵. This could add to the cost and challenges in mobilizing resources for biodiversity in the future.

► *A tax system that does not collect and redistribute revenues for environmental purposes*¹⁶⁶. The priorities of the national system can dictate to what degree funds are channelled towards environmental resources.

If the tax system is not set up to allocate a significant portion to ministries implementing activities, this will pose challenges to mobilize resources for biodiversity.

Island Developing States: Report of the Secretary-General. 76th Session. Available online at: undocs.org/pdf?symbol=en/A/76/211

158 UNWTO. Tourism in Small Island Developing States: Building a More Sustainable Future. Available online at: [e-unwto.org/doi/pdf/10.18111/9789284416257#:~:text=Tourism%20accounts%20for%20over%20one,Developed%20Country%20\(LDC\)%20status](https://e-unwto.org/doi/pdf/10.18111/9789284416257#:~:text=Tourism%20accounts%20for%20over%20one,Developed%20Country%20(LDC)%20status)

159 OECD. 2015. Drutschinin, A & Ockenden, S. Financing for Development in Support of Biodiversity and Ecosystem Services. Available online at: oecd-ilibrary.org/docserver/5js03h0nwxmq-en.pdf?expires=1638122323&id=id&acname=quest&checksum=88ACD466E11E82205B78808A347A2EDF

160 Anonymous source during bilateral consultation

161 OECD-The World Bank. 2016. Climate and Disaster Resilience Financing in Small Island Developing States, OECD Publishing, Paris. Available online at: doi.org/10.1787/9789264266919-en

162 World Bank/ European Commission/GFDRR/UNDP. 2018. Jeggle, T & Boggero, M. Post-Disaster Needs Assessment: Lessons from a Decade of Experience. Available online at: openknowledge.worldbank.org/handle/10986/30945

163 OECD. Financing for Development in Support of Biodiversity and Ecosystem Services. Available online at: oecd-ilibrary.org/docserver/5js03h0nwxmq-en.pdf?expires=1633375648&id=id&acname=quest&checksum=A3672AC27F161359964B2D768A53E13

164 Belize. 2016. National Stocktaking for Biodiversity Planning and Conservation

165 Ibid

166 OECD. Financing for Development in Support of Biodiversity and Ecosystem Services. Available online at: oecd-ilibrary.org/docserver/5js03h0nwxmq-en.pdf?expires=1633375648&id=id&acname=quest&checksum=A3672AC27F161359964B2D768A53E13

➤ *Remoteness of many SIDS.* Isolation means that even sectors that offer potential for

growth in terms of production, processing or marketing, suffer from the country's isolation and

reaching export markets¹⁶⁷.

3.1.1.3 Innovations, Successes and Other Mechanisms for Mobilizing Financial Resources for SIDS

Summary: Innovations, Successes and Other Mechanisms for Mobilizing Financial Resources in SIDS

- Debt-for-nature swaps
- Blue bonds
- Blue economy investments
- Partnerships to leverage private capital
- Private financing investments to be repaid by a percentage of future tax revenues
- Biodiversity protection as part of corporate social responsibility (CSR) initiatives
- Microcredit partners in sectors such as fisheries or eco-tourism
- Green fee schemes and biodiversity trust funds
- Non-resource based incentives: e.g. certification, biosphere certification

Despite the constraints and gaps in leveraging funds for biodiversity conservation to meet national targets, many SIDS have piloted and undertaken innovative initiatives to access resources. These include a variety of financial instruments and mechanisms, such as:

➤ *Debt-for-nature swaps:* Seychelles, for example, has swapped some of its debt in exchange for designating nearly a third of its ocean territory as marine protected areas. It illustrates one way that countries can be compensated for preserving natural resources that are critical to their own survival¹⁶⁸.

➤ In 2018, Seychelles launched the world's first sovereign blue bond, mobilizing USD 15 million for blue economy projects that support sustainable marine and fisheries projects. Proceeds from the bond will support expansion of marine protected areas (MPAs) and improved fisheries governance¹⁶⁹. Fiji will also be launching its Sovereign Blue Bond in 2022 to attract finance to deliver blue jobs, projects and prosperity across its 1.3 million square kilometers of Blue Pacific¹⁷⁰.

➤ *Blue Economy Investments in the Organization of Eastern Caribbean States (OECS)—*The Blue Economy Investment Portfolio comprises of ten re-

gional project concepts, five areas of interest for private sector investment, and a range of national interventions identified by OECS Member States (of which SIDS are members) as priorities for implementation, including: aquaculture, mariculture, fisheries, conversion of fish waste to fertilizer and other products, renewable energy exploration, waterfront development, fishing village resorts, coastal replanting, and beach nourishment. The establishment of a Biosphere Resources Research Facility, a Marine Services Training School, as well as a Blue Economy Incubator and Accelerator program, are also proposed¹⁷¹.

167 FAO. Fish 4ACP: Unlocking the Potential of Sustainable Fisheries and Aquaculture in Africa, the Caribbean and the Pacific. Available online at: [fao.org/in-action/fish-4-acp/where-we-work/africa/sao-tome-and-principe/en/](https://www.fao.org/in-action/fish-4-acp/where-we-work/africa/sao-tome-and-principe/en/)

168 Cheney, C. 2021. Build Back Bluer: Small Island Developing States Pursue New Financial Mechanisms. Available online at: devex.com/news/build-back-bluer-small-island-developing-states-pursue-new-finance-mechanisms-99043

169 World Bank. 2018. Seychelles launches world's first sovereign blue bond [worldbank.org/en/news/pressrelease/2018/10/29/seychelles-launches-worlds-first-sovereign-blue-bond](https://www.worldbank.org/en/news/pressrelease/2018/10/29/seychelles-launches-worlds-first-sovereign-blue-bond)

170 UNCDF. 2021. COP 26- United Kingdom, UN Agencies, Welcome Fiji's Plans to Issue Sovereign Blue Bonds in 2022. Available online at: [uncdf.org/article/7298/cop26-united-kingdom-un-agencies-welcome-fijis-plans-to-issue-sovereign-blue-bonds-in-2022](https://www.uncdf.org/article/7298/cop26-united-kingdom-un-agencies-welcome-fijis-plans-to-issue-sovereign-blue-bonds-in-2022)

171 OECS. 2020. Global Partners Pledge Support for Blue Economy Investments in the OECS. Available online at: [pressroom.oecs.org/global-partners-pledge-support-for-blue-economy-investments-in-the-oecs](https://www.pressroom.oecs.org/global-partners-pledge-support-for-blue-economy-investments-in-the-oecs)

► Saint Lucia is piloting the first partnership with the World Economic Forum (WEF) to develop a Country Financing Roadmap (CFR), to achieve its Sustainable Development Goals (SDGs). The CFR intends to bridge the SDG financing gap. The plan looks to broaden sources of financial support and develop an integrated approach with the backing of all parties, from government agencies to private sector bodies, to mobilize capital. The goal is that rather than attempting to meet SDGs one project at a time, the CFR will create the enabling environment to attract high-quality investment and private capital¹⁷².

► Saint Lucia is piloting FORTE, a data-driven programme that works by retraining individuals in high-demand areas at no upfront cost to the government. The costs of running the programme will be covered by private financing to be repaid by a percentage of future tax revenues resulting from an increased workforce, essentially allowing the programme to pay for itself over time. The FORTE programme is an example of a replicable solution that can be adopted by other SIDS, where unemployment continues to slow progress and recovery¹⁷³.

► Fiji demonstrates the example of private sector partnership for biodiversity protection. One such example is that of the Sago Palm Restoration. The Fiji Sago Palm is endemic, and widely used within Fiji's Hotel industry for thatch to give the buildings an aesthetic Fijian look. As a wetland species that is now listed as endangered on the

IUCN RedList because of habitat loss and overconsumption through the destructive Heart of Palm trade, the species recovery plan allowed for the plight of the species to be socialised outside of the traditional users (harvesters, landowners and regulators). Since 2012, the ANZ Bank Pacific Foundation Staff has conducted activities to contribute towards the recovery of this species through seed collection from wild populations, seed propagation and planting at previously degraded Sago palm forest sites. By engaging corporations 2015 to 2020, NatureFiji-MareqetiViti, the Serua Provincial Office, National Trust of Fiji and the Fiji Ministry of Forestry have been able to continue to address the plight of the Fiji sago palm despite the lack of traditional project donors to support the species recovery plan.

► The Micronesia Challenge was established 15 years ago and is composed of three countries: Marshall Islands, Micronesia, and Palau, through which they leveraged their GEF-4 allocation to catalyze an endowment fund and pledges from The Nature Conservancy (TNC) and Conservation International. Through a Green Fee Scheme, Palau mobilized funds USD 15 from the USD 35 departure tax for non-Palauan passport holders to pay when leaving the territory to be paid into a national account managed by the Protected Area Network Fund (PANF) board of directors¹⁷⁴.

► In May 2008, The Bahamas' government alongside leaders from Jamaica, Grenada, The Dominican Republic and Saint

Vincent and the Grenadines, launched the Caribbean Challenge. The Caribbean Challenge was an unprecedented commitment by Caribbean governments to build political support and financial sustainability for protected areas in the Caribbean. In the Bahamas for instance, the government committed \$2 million dollars for the establishment of The Bahamas National Protected Area Fund, supported by The Nature Conservancy, KfW (the German Development Bank) and other international funding agencies¹⁷⁵.

► São Tome and Príncipe established national micro-credit schemes for fishers, fish traders, and agriculturalists. In Príncipe a competition was set up with aim to reduce sea turtle poaching. Revenue from sea turtle-based tourism was to be distributed to the three communities that demonstrated the best environmental practices. This engaged local communities and supported local initiatives and mobilized communities¹⁷⁶.

► There are also other non-resource-based incentives that countries have used to improve biodiversity conservation, such as for instance obtaining Biosphere certification or World Heritage Site status.

There are also examples of new and other financial mechanisms that could be explored by SIDS. These include:

► A blended finance instrument called the Global Fund for Coral Reefs was launched in September 2020. It aims to raise USD 500 million in public and philan-

172 Morris, C. 2019. Inside St. Lucia's Country Financing Roadmap: Island is First to Trial new Financing Model in St. Lucia Star. Available online at: stluciar.com/inside-st-lucias-country-financing-roadmap-island-is-first-to-trial-new-financing-model/

173 WEF. 2021. Unlocking Financing for Growth in Saint Lucia. Available online at: weforum.org/agenda/2021/01/unlocking-financing-growth-saint-lucia-beyond/

174 SPREP. Green Fee Supporting Conservation Efforts in Palau. Available online at: sprep.org/news/green-fee-supporting-conservation-efforts-palau

175 Government of the Bahamas. Bahamas National Capacity-Self-Assessment

176 Sao Tome & Principe. VI National Biodiversity Report (2019)

thropic funding to catalyze private investments to protect and restore coral reef ecosystems. So far, the German government, Paul G. Allen Family Foundation, Prince Albert II of Monaco Foundation, several U.N. agencies, and financial institutions BNP Paribas and Mirova have made commitments totaling more than \$10 million. The campaign will culminate at the U.N. Climate Change Conference (CoP 26)¹⁷⁷.

►Regional Cooperation: At the 2018 Pacific Islands Forum Economic Ministers Meeting (FEMM), leaders from a number of SIDS considered proposals to establish a financing facility to channel funds toward resilient infrastructure and climate insurance. The Cook Islands, Fiji, New Zealand, Palau and Samoa developed the proposal for a financing facility. The goal of the Pacific Resilience Facility is to strengthen the financial resilience of Pacific SIDS, provide financing options for resilient development, strengthen strategic partnerships with donors and development partners and build the capacity of national disaster risk budgeting and financing. While the initiative appears to be geared more strongly towards climate change, there are various entry points for biodiversity through building resilience and achieving sustainable development¹⁷⁸. The Pacific Resilience Facility is working to raise USD 1.5 billion, and will use the interest the fund generates to support community-level efforts¹⁷⁹.

►The Biodiversity Finance Initiative

(BIOFIN) was established in CBD COP 11, by UNDP and the European Commission, in response to the urgent global need to divert more finance from all possible sources towards global and national biodiversity goals. BIOFIN does the following: (i) Assesses the policy, institutional, and economic context for biodiversity finance and map existing finance solutions; (ii) Measure and analyse current biodiversity expenditures from the public and private sectors, donors, and non-governmental organizations (NGOs); (iii) Biodiversity Financial Review Assessment: Make a reliable estimate of the finances needed to achieve a country's biodiversity goals, and compare this to current biodiversity expenditures and other resources available; (iv) Biodiversity Finance Plans: Develop a Biodiversity finance plan that identifies and mobilizes the resources and policies required to implement the most suitable finance solutions. However, it only operates in a few SIDS (Belize, Cuba, Fiji, Seychelles). There is the opportunity of promoting a SIDS-specific approach through this mechanism.

A range of biodiversity finance mechanisms also exist for use in the domestic context. These include but are not limited to: environmental fiscal reform, payments for ecosystem services, market creation mechanisms for green products and conservation trust funds, all of which mobilise and help to channel finance and investment in biodiversity¹⁸⁰. However,

these suggest that SIDS have the enabling conditions to facilitate the adoption of such financial mechanisms including:

- Knowledge and technical capacities for effective design, implementation and enforcement of these mechanisms
- Underlying capacities e.g. economic valuation of ecosystem services, biodiversity repertoires and repositories of data gathered, sustainable land and water management, tools for effective monitoring, evaluation and reporting, data gathering, data analysis
- Well-functioning governance, legal institutions, multi-stakeholder engagement, and programmatic approaches dedicated to strengthening conservation, with the staff and resources to dedicate to these
- Capital to kick-start domestic financial mechanisms.

3.1.2. Capacity Building and Development (Cross-Cutting)

Capacity-building is a gap that is raised in virtually every area related to biodiversity conservation. It comes up in the context of resource mobilization, data gathering, data management, enforcement, governance, knowledge sharing, etc.¹⁸¹ For the purpose of this assessment, the definitions of the United Nations Development Group of capacity building will be used. Capacity is considered as the ability of people, organisations, and society to manage their affairs successfully. Capacity development is applied as the process whereby people, organisations and society strengthen, create, adapt, and maintain capacity over

177 Cheney, C. 2021. Build Back Bluer: Small Island Developing States Pursue New Financial Mechanisms. Available online at: devex.com/news/build-back-bluer-small-island-developing-states-pursue-new-finance-mechanisms-99043

178 IISD. 2018. Pacific Ministers Propose Establishing Resilience, Climate Insurance Funds. Available online at: sdg.iisd.org/news/pacific-ministers-propose-establishing-resilience-climate-insurance-funds/

179 Cheney, C. 2021. Build Back Bluer: Small Island Developing States Pursue New Financial Mechanisms. Available online at: devex.com/news/build-back-bluer-small-island-developing-states-pursue-new-finance-mechanisms-99043

180 OECD. Financing for Development in Support of Biodiversity and Ecosystem Services. Available online at: oecd-ilibrary.org/docserver/5js03h0nwxmq-en.pdf?expires=1633375648&id=id&accname=guest&checksum=A3672AC27F161359964B2DD768A53E13

181 UNEP-WMC. Biodiversity Related Capacity Building: Informing the Preparation of a Long-Term Strategic Framework for Capacity-Building Beyond 2020

time, in order to achieve development results¹⁸².

When discussing capacity-building, this assessment reflects findings from the “Biodiversity Related Capacity Building: Informing the Preparation of a Long-Term Strategic Framework for Capacity-Building Beyond 2020” for alignment and to build on the findings for the post-2020 context. This assessment similarly notes that capacity building needs to be treated as an ongoing, iterative process. It can be disadvantageous to view capacity building through a time-bound lens, or as a project output to be maintained. Capacity building is in a sense never over and will continue to evolve. Evaluation of GEF projects has also found that the achievement of project outputs is sometimes prioritised over capacity-building aspects, and often there is no sustainability plan in place for maintaining capacity once the projects are closed¹⁸³. One of the tensions of operating within the global context is that as requirements of Conventions increase, either through

reporting, or target-setting, or through participation in protocols or fora, the distance between SIDS capacities and where they ought to be, is exacerbated.

With respect to the CBD, capacity-building, technical and scientific cooperation and technology transfer are all enablers of the implementation of the Convention and its Protocols. They enable Parties to fulfil their obligations and realise their rights, and support achievement of the objectives of the Convention and its Protocols¹⁸⁴. Capacity-building efforts are central to meeting biodiversity targets. As noted by the government of Tuvalu in their NBSAP, capacity gaps have been the main reason that obligations under the CBD have remained unfulfilled¹⁸⁵, which suggests just how crucial they are for long term target achievement.

In the global context of biodiversity conservation, there is a broad range of organizations that support capacity-building in SIDS.

These include¹⁸⁶:

- UN bodies
- Multilateral and bilateral development assistance organisations
- Intergovernmental programmes
- Regional environmental organisations and programmes
- Scientific networks and programmes
- Consortium of CGIAR centres
- Networks of like-minded organisations working on specific issues
- International non-governmental organisations and IUCN
- National organizations and programmes.

In order to understand the impact of capacity gaps on SIDS, specifically, it is useful to break capacity issues by area and highlight examples in various countries. The capacity needs and constraints identified in this assessment are those that have been explicitly stated, either through NBSAPs, Biodiversity reports, NCSAs or workshops and interviews.

3.1.2.1 Capacity Gaps in Enforcement

Summary: Capacity Gaps in Enforcement

- Regardless of how well-developed governance regime may be, without capacity for enforcement, countries will encounter constraints to protect their biodiversity. Enforcement capacity gaps can be the result of:
 - Resource challenges
 - Shortage of staff
 - Lack of awareness, understanding and value biodiversity-relevant rules and regulations
 - Political/social considerations and conflicting interests
 - Lack of training/skills
 - Lack of equipment
 - Lack of knowledge/data on what needs to be monitored, how and why.

182 UNDP. 2017. UNDAF Companion guidance: Capacity development. Available online: undg.org/wp-content/uploads/2017/06/UNDG-UNDAF-Companion-Pieces-8-CapacityDevelopment.pdf

183 UNEP-WMC. Biodiversity Related Capacity Building: Informing the Preparation of a Long-Term Strategic Framework for Capacity-Building Beyond 2020

184 UNEP. Biodiversity Related Capacity Building: Informing the Preparation of a Long-Term Strategic Framework for Capacity-Building Beyond 2020

185 Tuvalu National Biodiversity Strategy and Action Plan 2012-2016

186 UNEP. Biodiversity Related Capacity Building: Informing the Preparation of a Long-Term Strategic Framework for Capacity-Building Beyond 2020

SIDS have identified capacity gaps in enforcement as a major issue, without which national policies and plans go unfulfilled. In the Maldives, for instance, issues relating to coral reef biodiversity conservation stems from culturally and traditionally driven practices that need to be regulated using modern law enforcement tools¹⁸⁷. Despite the Maldives having habitat and species protection integrated into key natural resources management laws from the 1970s, there is a lack of understanding and enforcement of said laws. Coral mining has been banned by law for more than 20 years yet coral mining and sale of by-products to tourists goes on at a significant scale. Wildlife law enforcement officers institutionalised with responsibilities for overseeing fisheries and protected areas and species should combat illegal activities, however without that training or knowledge, laws are not enforced properly. Creating awareness on biodiversity related laws and regulations, policies and strategies is necessary to understand the value of biodiversity conservation¹⁸⁸.

In St. Kitts and Nevis, the problem of enforcement in a small SIDS is well illustrated. The Department of Marine Resources only has one Fisheries Enforcement Officer. In addition to the lack of HR capacity in managing this big task, there is a political constraint as well. This Officer needs to go out with other Fisheries Officers who depend on obtaining data from fisherfolk. Thus, good relations must be maintained with fisherfolk. This may present a challenge when enforcement of regulations is involved. This is an emblematic problem in a small island, where enforcement is conducted by officers that need to work with the people they are policing on other matters, and where the budget capacity does not exist to hire additional staff. The Department of Marine Resources has requested the creation of a separate enforcement Unit, but the budget capacity is not available¹⁸⁹.

In São Tomé and Príncipe, there are high levels of unregulated fishing activities due to weak moni-

toring and enforcement. Accurate long-term data on fisheries in São Tomé and Príncipe is lacking, but local entities and fishermen report that fish stocks have decreased considerably, reducing the incomes of fishermen and increasing poverty of coastal zone populations¹⁹⁰. This is in large part due to unregulated and unsustainable fishery techniques, like fishing in the bays, use of dynamite, and fine meshed nets. A Fisheries Plan was produced for 2010-2025 to regulate un-sustainable fishing techniques, but there has been a lack capacity for inspection and other control practices to implement the existent laws¹⁹¹.

In Papua New Guinea, changes in the rainforest are not captured adequately. Part of the reason is the lack of capacity to monitor these changes effectively, and independently. Further, huge challenges remain with compliance from logging operations, which are poorly monitored and enforced¹⁹².

3.1.2.2 Capacity Gaps in Governance

Summary: Capacity Challenges in Environmental Governance

- Lack of science-policy interface
- Lack of political awareness/interest in biodiversity issues
- Out-migration of skilled staff
- A lack of paid staff to enforce/monitor
- Lack of governance infrastructure, equipment, patrolling capabilities
- Lack of community awareness and education on existing regulations
- Too many global regimes to report on.

Capacity remains weak in SIDS for environmental governance, which is generally shaped by multilateral environmental agreements, political agreements, non-binding agreements, programmes, pro-

187 Government of the Maldives. 2019. 6th National Report on Biological Diversity

188 Ibid

189 St. Kitts & Nevis. 6th National Report to the Convention on Biological Diversity (2019)

190 Sao Tome & Principe. 2019. VI National Biodiversity Report

191 Ibid

192 Papua New Guinea. 2019. 6th National Report to the Convention on Biological Diversity

jects and national laws, which exists at various levels¹⁹³.

Lack of political will, capacity, and making compromises on the environment to achieve economic returns has been identified as some of the root causes of ineffective governance in SIDS¹⁹⁴. One of the underlying causes is the failure of policy makers to link development, economic growth and overall human well-being to general and intrinsic values of the environment¹⁹⁵. This problem is likely to worsen in the post-COVID-19 context, as countries strive for economic growth, which may result in de-prioritizing environmental policies.

The lack of integration of sector policies, inadequate institutional capacities, ill-defined priorities and unclear operational objectives feed governance challenges and are common issues in SIDS¹⁹⁶. Some of the capacity challenges include:

➤ *Lack of science policy interface.* Very often, scientific advice and information are not incorporated sufficiently into environmental policies, to bring about policy shifts. Effective long-term governance must include complex analyses on dynamic interactions of ecosystems, their services, functions and resilience, however the capacity to obtain this information is often lacking. One of the ways of understanding this linkage is through scientific as-

sessments. In SIDS, generally policy-making and policies are done with little scientific bases partly because of the unavailability of data. There are also instances where scientific information may exist but political factors, vested interests and/or long-established practices trump data-based recommendations¹⁹⁷.

➤ *Greater knowledge, awareness and cooperation.* Along with greater scientific knowledge and data, there also needs to be platforms to debate/consider long-term effects of different approaches to resource management, which should be included in policy dialogue¹⁹⁸. Peer learning platforms and exchanges are often the least funded, or not used to their full potential due to a lack of staff-time availability.

➤ *Out-migration of skills.* Over the last few decades, many large economies, including Canada, USA, Australia and the United Kingdom, have established programmes to attract skilled migrants to the detriment of many SIDS. These programmes have triggered a movement of skills away from SIDS, as the latter cannot compete with the economic and other incentives offered¹⁹⁹.

Country level examples illustrate some of the capacity challenges in governance. In the Maldives, there has been an attempt to

regulate the trade of endangered species. However, the regulatory framework and the necessary capacity are still lacking. It was expected that by end of 2018, Maldives would have enforced most of the regulatory frameworks and other obligations under the convention that ensures sustainable use of biodiversity. However, laws related to limiting trade of endangered species have still not been adopted²⁰⁰.

The same can be observed in the Maldives on access and benefits-sharing (ABS). The Maldives has a rich history of traditional medicines and practitioners with a great deal of knowledge on local marine and terrestrial plants and animal species of medicinal value. However, this cannot be capitalized upon or protected under the convention as no legislation exists to address matters of ABS in the country²⁰¹.

Similarly in the Marshall Islands, it is noted that the current legislation on biosafety is outdated. Existing legislation does not address issues of biosafety such as the importation of GMOs or food products derived from GMOs²⁰². The legislation does not provide for either environmental or social impact assessments, nor does it clearly define roles and responsibilities of different government agencies²⁰³.

In Papua New Guinea, 59 Protected Areas (PAs) were established in 2020. While this is a major ac-

193 Singh, A. 2014. Environmental Governance in Small Island Developing States in *Annuarie de Integracion*. Available online at: cries.org/wp-content/uploads/2014/11/23-Asha.pdf

194 Ibid

195 Ibid

196 Singh, A. 2014. Environmental Governance in Small Island Developing States in *Annuarie de Integracion*. Available online at: cries.org/wp-content/uploads/2014/11/23-Asha.pdf

197 Ibid

198 Ibid

199 Ibid

200 Government of the Maldives. 2019. 6th National Report on Biological Diversity

201 Government of the Maldives. 2019. 6th National Report on Biological Diversity

202 Republic of the Marshall Islands. 2020. Sixth National Report Convention on Biological Diversity

203 Ibid

accomplishment, a study conducted in 2017 noted²⁰⁴: “the management effectiveness has not benefitted from systemic improvement of on-the-ground delivery since 2006 when a similar study was conducted. It found little to no progress in the management effectiveness for 65% of protected areas²⁰⁵.” The key weakness identified was the lack of a protected area management agency/organization, that resulted in an almost breakdown of the rule of law²⁰⁶. A lack of paid protected area staff, equipment, support, infrastructure, planning, law enforcement, patrolling, community awareness, education, resource management activities, and visitor management led to poor PA management²⁰⁷. It was also noted that without a clear legal definition of PAs, disputes resulted in what areas constituted a PA, and how much of the land or seascape could be protected²⁰⁸.

Part of effective governance, is also for institutions to have the ability to apply tools and practices for effective biodiversity conservation, into other sectoral planning. In Papua New Guinea, cumulative environmental costs of development, such as resulting from major roads or the impacts of urban growth centres, are rarely factored into to determine the long-term environmental costs²⁰⁹. This suggests a lack of synergy, governance, and lack of integration of biodiversity issues more broadly.

In São Tomé and Príncipe there is a lack of regulation, legal frameworks on how to regulate the use of

biological resources²¹⁰. There has however been greater integration of biodiversity into other national strategies such as the National Tourism Strategy (2018-2025), National Forest Development Plan (2018-2030), Príncipe Sustainable Development Plan (2018-2030). However, São Tomé and Príncipe 6th Biodiversity Report notes that there has been a lack of valuation studies, and biodiversity considerations are yet to be integrated into national reporting and accounting systems²¹¹. The report also note that if community members and local government jointly design MPAs and sustainable use zones; if fishers are enabled to co-manage and patrol these areas; if the existing livelihoods of local households are more sustainable and sources of income more diverse, and if there is increased government capacity for informed decision-making, policy development and law enforcement; then the key drivers of marine biodiversity loss and protect species and habitat around São Tomé and Príncipe, and governance issues, will be better addressed²¹².

Governance is also a key obstacle to progress towards biodiversity objectives in Dominica. One of the reasons noted is that several of the policies that seek to enshrine sustainable use of biodiversity as the basis for Dominica’s development, have not been formally adopted by Government. Some policies have existed as draft documents for years. Without formally approved policies, it is difficult to establish the appropriate frame-

works (including legislation and institutional arrangements) and mobilise the necessary resources (including personnel) for achievement of this objective²¹³.

A second obstacle in Dominica, is the absence of clear frameworks for cross-sectoral implementation, monitoring, and evaluation of approved policies. Government policies, strategies, and plans should ideally be accompanied with implementation action plans that identify the roles and responsibilities of relevant agencies, including those in civil society and the private sector, and strategies to increase public awareness. Currently there are no such plans to support stakeholders in incorporating national objectives and targets into their annual work programming, monitoring and reporting. Without such frameworks, the integration of biodiversity into national policy and strategy documents is unlikely to have desired results²¹⁴.

Another key issue related to capacity gaps in governance is delay that SIDS experience in implementing a project. This can be linked to a lack of government staff managing the process, lack of clarity on what is required by funds, delays in submitting terms of references to hire consultants, a lack of qualified consultants, as well as challenges in procurement in a small country. UN procedures recommend several tenders for project procurement plans; often there just are not enough suppliers to bid.

204 IISD. 2020. Papua New Guinea Works to Improve Management of Protected Areas. Available online at: sdg.iisd.org/commentary/policy-briefs/papua-new-guinea-works-to-improve-management-of-protected-areas/

205 Ibid

206 Ibid

207 Ibid

208 Ibid

209 Papua New Guinea. 2019. 6th National Report to the Convention on Biological Diversity

210 Sao Tome & Principe. 2019.VI National Biodiversity Report

211 Ibid

212 Ibid

213 Commonwealth of the Dominicas. 2019. Sixth National Report to the Convention on Biological Diversity

214 Ibid

There is also the challenge of numerous multilateral environmental agreements (MEAs) to report on, with associated protocols, and few people to actually follow up on im-

plementing activities. The focus becomes on reporting rather than implementing. The difference in capacity in responding to the CBD as opposed to the UNFCCC is

also dramatic. In the case of Seychelles for instance, there are 26 people that attend the UNFCCC COP, and 3 that attend the CBD COP²¹⁵.

3.1.2.3 Capacity Gaps in Public Awareness, Education and Engagement

Summary: Capacity Gaps in Conducting Public Awareness Activities

- Lack of centralized vision for activities
- Lack of measurement of results of awareness activities
- Disparate activities carried out by different actors, without coordination
- Lack of data to back up value of biodiversity
- Lack of central data collection and analysis capacities of what activities are carried out
- Lack of capacity of stakeholder organizations (financial, technical, administrative) to engage
- Digital divide, disparities in accessing information

Sensitizing communities on the value of biodiversity has been challenging in most SIDS. While some of this is improving, in particular through schooling programmes with youth, the challenge remains, especially when biodiversity degradation occurs due to livelihoods activities. As is noted in the Maldives 6th National Biodiversity Report: "Education and awareness is key to valuing biodiversity at all levels especially at schools and youth population. Lack of awareness at atolls and island community levels is considered a major hurdle for effectively managing biodiversity²¹⁶."

This is also exacerbated when awareness activities occur ad hoc without coordination or a central vision. As is noted by Papua New Guinea there is a lack of collation of awareness activities across sectors within a centralized database, which prevents analysis to study what is working, or what needs to be followed up on or remedied.

Such information would also be useful to inform follow-up action²¹⁷. This is more problematic in SIDS with numerous projects ongoing at once, as in Haiti for instance where in addition to UN agencies (UNDP, UNEP, FAO), there is the presence of banks (Inter-American Development Bank, World Bank), and a whole host of bilateral partners (France, Canada, Switzerland, United States, among others), as well as non-governmental organizations and international non-governmental organizations. With public awareness activities folded into many of these initiatives, it can be difficult to streamline activities and gauge effectiveness. Without a strong central body that can centralise this information and then apply it, much of the impact can be lost.

This is reinforced by the experience in São Tome and Príncipe, there has been often been a lack of coordination between organizations and/or projects delivering

awareness activities, and a general lack of monitoring of who has been reached by the activities and how effective they have been at increasing awareness²¹⁸.

In St. Kitts & Nevis, there is still much awareness to be spread on PAs. Although projects have enhanced the capacity of rangers and others working in the protected areas, there are no professionals specifically educated in PA planning, management or biodiversity conservation. Lack of adequate scientific and technical capacity related to PA management, pose an obstacle to protecting these vulnerable areas²¹⁹.

In St. Vincent and the Grenadines, it is noted that there is a need for more consistent biodiversity messaging via television, radio, and internet²²⁰. Although several organizations have made an effort to deliver biodiversity messaging via social media, audiences are small (most of the government agencies

215 AIS SIDS Regional Workshop. November 22, 2021

216 Government of the Maldives. 2019. 6th National Report on Biological Diversity

217 Papua New Guinea. 2019. 6th National Report to the Convention on Biological Diversity

218 São Tome & Príncipe. 2019. VI National Biodiversity Report

219 St. Kitts & Nevis. 2019. 6th National Report to the Convention on Biological Diversity

220 St. Vincent and the Grenadines. 2019. 6th National Report on Biological Diversity

with Facebook pages have fewer than 1,000 followers) and the levels of engagement are low. Reliable and sustainable funding is an ongoing constraint for awareness-raising²²¹.

One of the opportunities in the SIDS is that small land mass and population size, means that for there is the possibility of reaching most of their population. This is the case in the Maldives where

the Farukoe programme, organized by the Ministry of Education creates awareness on reefs to students of the country²²². At the time of writing, Farukoe has reached 93 % of school-age children, and has given hands on training through diving programmes to 71,442 children²²³. It is anticipated that in the Maldives the entire population will be reached on biodiversity awareness programming²²⁴.

However, engagement at large still remains a challenge in the Maldives. Stakeholder involvement and engagement in oceanic and coral reef biodiversity planning and management is limited in as many NGOs operate under the umbrella of environmental protection agents but with little opportunity for constructive engagement. Part of the reason is the lack of capacity and resources within the organisations²²⁵.

3.1.2.4 Capacity Gaps in Science, Technology & Data

Summary: Capacity Gaps in Scientific Cooperation, Technology Transfer and Knowledge Management

- Low technical and institutional capacity to integrate, apply technology and knowledge, and identify what is needed for improved biodiversity conservation
- Lack of expenditure on research and development
- Weak science-policy interface
- Need for more specialized data banks
- Lack of knowledge on what technologies are most needed to combat specific biodiversity problems
- Data collection needs to be seen as an ongoing process not as a time-bound output
- During COVID-19, larger number of participants should be allowed to enter training sessions and platforms to capacitate a greater number of staff
- Sometimes data portals and information platforms require too high a level of expertise to engage

Summary: Key Gaps in Data and Information Gathering

- Lack of valuation of biodiversity and ecosystem services
- No national environmental accounting
- Lack of information on biodiversity and ecosystem services
- Lack of data on technology, tools, practices to build resilience
- Lack of data on how to monitor for changes in biodiversity values
- Difficulty in aligning data, particularly as technology changes
- Lack of data on how biodiversity can benefit on socioeconomic conditions
- Poor usability/accessibility of existing data banks

Gaps in science, technology and data appear to underpin much of the other constraints that SIDS experience. While many national bi-

odiversity reports do not expressly mention data or science gaps, upon highlighting other capacity gaps, one notes that the lack of

data underpins other constraints. These are being exacerbated by the COVID-19 pandemic, which is increasing global data inequal-

221 Ibid

222 Government of the Maldives. 2019. 6th National Report on Biological Diversity

223 Government of Maldives. 2021. Farukoe. Available online at: farukoe.com

224 Government of the Maldives. 2019. 6th National Report on Biological Diversity

225 Government of the Maldives. 2019. 6th National Report on Biological Diversity

ities²²⁶. Field level reporting, analyses by various statistical offices are being disrupted.

Some examples of data constraints are the following:

In the Marshall Islands, biotechnology has been identified as offering potential for the use of products for pharmaceutical scientific research, cosmetics, and sources of resistance to pests and diseases²²⁷. However, the lack of data makes it challenging to advance in this area. There is little information, knowledge and data on issues related to genetic diversity and the impact of biotechnology. There may be potential in many of the native species for scientific research for a variety of purposes²²⁸, however this requires substantial research to generate baseline data.

In Dominica, an overarching obstacle related to achievement of biodiversity objectives is the shortage of reliable baseline and time-series data for ongoing assessment of and reporting on the state of Dominica's biological resources and their management and use²²⁹. It has been over 20 years since the last national farm census and over 30 years since the last national forest inventory. A cause of the information deficiency is due to the lack of the requisite human and technical capacity to consistently gather/generate the relevant data. To address these shortcomings, Dominica has identified scientific,

technical, capacity-building, and financial support to²³⁰ :

- Increase the staff complement and technical capacity for biodiversity research and monitoring in the public sector;
- Provide agencies with equipment and tools (e.g. vehicles, geographic information systems equipment and software, telecommunications equipment) for effective and efficient fieldwork, monitoring, and research;
- Carry out biodiversity inventories for key ecosystems and habitats in forests, national parks, wetlands, and coastal zones;
- Develop a key suite of biodiversity status indicators, establish relevant baselines, and plan and implement a sustainable national biodiversity monitoring programme.

In Papua New Guinea there is a need for economic evaluation of its ecosystems that factor in environmental, socio-cultural and economic costs in the immediate to long term, both local and cumulative. However, the data is not available and generating such information would require a high level of expertise to be developed within tertiary institutions with subjects across different faculties, where there are significant gaps²³¹.

Data on habitat loss/change in São Tome and Príncipe is currently lacking, and sources such as Global Forest Watch should

be interpreted with caution as the frequent high levels of cloud cover over the islands can impede the analyses of remote sensing data²³². Major losses have largely been avoided, but degradation of forests and other habitats such as mangroves, through illegal extraction of timber and unsustainable use of other resources, remain a serious concern, as they are not monitored properly. Mechanisms to help address these issues have recently been introduced, including a National Forest Development Plan for 2018-2030, but ensuring effective implementation represents a major challenge²³³ particularly due to data gaps. Beyond degradation of ecosystems, there is also very little data of the characteristics of national fisheries resources²³⁴. Given, how heavily the country depends on fisheries — the sector represents the most important revenue source for low-income families after cocoa, and consumption of fish is the highest among coastal countries of Central Africa²³⁵, it is essential to know more about risks to the resource.

In St. Kitts and Nevis, one of the issues is on alignment of data, especially as technology evolves. For instance, maps monitoring ecosystems today use sophisticated technologies that were not available in earlier years. It makes it challenging to compare maps from different years making it difficult if not impossible in some cases to accurately monitor changes in ecosystems²³⁶.

226 UN DESA. 2021. Supporting Informed Decision-Making, SDGs Implementation and Monitoring in SIDS Through Data Governance, Production, Dissemination and SIDS-SIDS Collaboration

227 Republic of the Marshall Islands. 2020. Sixth National Report Convention on Biological Diversity

228 Ibid

229 Commonwealth of the Dominicas. 2019. Sixth National Report to the Convention on Biological Diversity

230 Ibid

231 Papua New Guinea. 2019. 6th National Report to the Convention on Biological Diversity

232 Sao Tome & Principe. 2019. VI National Biodiversity Report

233 Sao Tome & Principe. 2019. VI National Biodiversity Report

234 Ibid

235 FAO. Fish 4ACP: Unlocking the Potential of Sustainable Fisheries and Aquaculture in Africa, the Caribbean and the Pacific. Available online at: fao.org/in-action/fish-4-acp/where-we-work/africa/sao-tome-and-principe/en/

236 St. Kitts & Nevis. 2019. 6th National Report to the Convention on Biological Diversity

In Mauritius, there are major gaps in the understanding of the conservation status and levels of threat for many taxonomic groups, including plants, ferns, bryophytes, fungi, invertebrates, as well as science-based recovery plans and time-bound targets for all priority species. An IUCN Red List of Ecosystems for Mauritius and Rodrigues is further lacking²³⁷.

In St. Vincent and the Grenadines, the absence of reliable quantitative and spatial information about natural habitats is seen as the main obstacle to preventing habitat loss²³⁸. There is a lack of data on basics, such as what are the major habitats, their condition and areas, and what are the rates of habitat loss. The absence of relevant data makes it difficult to develop effective strategies to reduce habitat loss and fragmentation, and makes it impossible to measure progress.

While data gathering and capacity building pose challenges, especially in COVID-19 times when peer exchanges can be limited, Tonga illustrates that capacity building and training can also happen from afar. The Sixth Biodiversity Report of Tonga notes, the use of online and webinar training allowed greater participation from relevant sectors in Tonga, even when financial resources are limited to allow physical participation in biodiversity training²³⁹. Other countries such as the Maldives also indicated that

connectivity during the pandemic has allowed more engagement with remote domestic islands. However, some SIDS have also raised questions as to why international trainings or talks on biodiversity restrict the number of participants; when this is an opportunity to train a much larger swath of people.

There is also greater information being made available through shared resources. As noted in Papua New Guinea, data on rainforest cover and change is available from spatial portals both within the country and internationally (UNEP, University of Maryland). Other habitat change is not so well researched, yet changes within mangroves and other ecosystems can be broadly determined through interpretation of increasingly available high-resolution satellite imagery²⁴⁰. This also highlights the importance of partnerships and knowledge exchange mechanisms to make data and resources available to be shared and leveraged.

Often, projects reflect the need to establish databases. However, as is seen in the case of Samoa, having a database is not sufficient, as it has been inactive. Samoa has a Data Knowledge Information Facility but it is fairly complex to use, and accessibility is challenging. The usability, interface, shareability, accessibility are all significant elements to consider when centralizing data.

One of the key points that has to be considered when discussing capacity building in terms of data, is that data collection is an ongoing process. As Maldives has noted, data needs to be collected continuously, it cannot happen periodically for it to be useful. Many projects initiate data collection, but there is the critical challenge of maintaining databases — with staff turnover, lack of human resources appointed to manage it or populate it, there are risks that it will lose its usefulness.

Maldives has also noted that databases and portals have to be useful to SIDS' needs. Given the onerous demands of various types of reporting, the technology used needs to serve various sectors if it is to be useful and mainstream biodiversity. Seychelles further reinforces that in order for SIDS to be able to manage data the following has to be articulated on the outset: who runs the data portal? Who uses it? Who will maintain it? And are there dedicated personnel that can manage it?

CBD-related data platforms and knowledge sharing mechanisms exist. However, it is noted by some SIDS that to engage these, there needs to be a high-level of expertise²⁴¹. This poses impediments for participation and knowledge sharing.

3.1.3 Technical and Scientific Cooperation, Technology Transfer and Knowledge Management

Summary: Education/Skills Development, Data and Knowledge Management

➤ General lack of expenditure on research and development in SIDS and low capacity to conduct research in Natural Sciences

237 Mauritius. 2021. 6th National Report on the Convention for Biological Diversity

238 St. Vincent and the Grenadines. 2019. 6th National Report on the Convention for Biological Diversity

239 Kingdom of Tonga. 2020. Sixth National Report on the Convention on Biological Diversity

240 Papua New Guinea. 6th National Report to the Convention on Biological Diversity (2019)

241 AIS Workshop. Nov 22, 2021

- Tertiary education institutions can play a bigger role in supplementing skills gaps and retaining knowledge within the SIDS
- The lack of investments in education, and skills development, also contribute to a culture of employing international consultants to fulfill biodiversity related tasks. This can potentially hinder retention of skills, institutionalizing knowledge, and limit opportunities for local researchers and technicians
- Knowledge management hubs and data portals may be duplicative and may create new silos of knowledge
- SIDS need data sets to be responsive to specific biodiversity needs e.g. IAS, Nagoya Protocol.

As a follow up to the SAMAO Pathway, a variety of partnerships and cooperative mechanisms emerged, to enhance SIDS' technical and scientific cooperation, technology transfer and knowledge management. Despite the existence of data platforms and knowledge tools, most SIDS still have a low capacity to access or apply this information due to limited infrastructure; low technical and institutional capacity; little financial, human, and material resources; and lack of expertise and networks, to conduct research and generate knowledge and thus lack science-based data on which to base policy²⁴². In this section, main challenges related to education/expertise, skills development, and knowledge management, will be explored.

Education & Skills Development

Overall, there is a lack of expenditure on research and development in SIDS and low capacity to conduct research in the Natural Sciences, which leads to less domestically trained experts. There are very few scientific and techni-

cal articles produced by the SIDS — only 0.6 % of the global total in 2016²⁴³. As per regions, 0.07 % of scientific and technical studies were produced by Caribbean SIDS, 0.01 % by Pacific SIDS, and 0.51% AIS, but when removing Singapore, that accounts for 0.02 %²⁴⁴.

There is variation among SIDS on the number of researchers working on research and development (R&D). In Bahrain where there were 367 researchers and technicians engaged in research and development per million people in 2014; 47 in Papua New Guinea in 2016; and 7,187 in Singapore²⁴⁵. Although these figures do not mean that all these researchers are focused on biodiversity issues, they are emblematic of the culture of research.

SIDS have a need for more tertiary education in environmentally relevant fields, technical expertise, training, access to tools, new technology, ocean information, ocean literacy, monitoring networks, data products, and infrastructure and

logistics, training, and human resource development, as well as the improvement of national research capacities, and the transfer of technology perspectives²⁴⁶. Technical cooperation and exchanges must take into account tertiary educational institutions to have a sustainable impact within SIDS, as universities in SIDS can be central players in national capacity building activities, as they are the generators of knowledge, sources of trained personnel, and hubs of innovation.

The Caribbean SIDS possess the highest tertiary institutional capacities and capabilities in SIDS regions, followed by the AIS and Pacific SIDS. Caribbean SIDS have the lowest percentage of total government expenditure on tertiary education, but they have the largest GDP per capita and the highest population of the three SIDS regions and thus a higher demand for institutional capacities²⁴⁷. Though the AIS SIDS have the lowest total population, are ranked between Caribbean and Pacific SIDS, in part because of

242 Valdés, L. Global Ocean Science Report: The Current Status of Ocean Science around the World; UNESCO Publishing: Paris, France, 2017

243 Zitoun, R.; Sander, S.G.; Masque, P.; Perez Pijuan, S.; Swarzenski, P.W. Review of the Scientific and Institutional Capacity of Small Island Developing States in Support of a Bottom-up Approach to Achieve Sustainable Development Goal 14 Targets. *Oceans* 2020, 1, 109-132. doi.org/10.3390/oceans1030009

244 Ibid

245 Ibid

246 Zitoun, R.; Sander, S.G.; Masque, P.; Perez Pijuan, S.; Swarzenski, P.W. 2020. Review of the Scientific and Institutional Capacity of Small Island Developing States in Support of a Bottom-up Approach to Achieve Sustainable Development Goal 14 Targets. *Oceans*, 1, 109-132. doi.org/10.3390/oceans1030009

247 Ibid

Singapore's investments, where education has been a key driver in economic development over the last decades²⁴⁸.

While creating opportunities for universities and learning centres to engage in biodiversity-related scientific cooperation, it is also necessary to support capacity development to promote retention of skills. One of the ongoing issues expressed by SIDS is the loss of skilled staff to other countries/institutions²⁴⁹, leaving the country in a continual state of knowledge deficit.

The lack of investments in education, and skills development, also contribute to a culture of employing international consultants to fulfill biodiversity related tasks. This can potentially hinder retention of skills, institutionalizing knowledge, and limit opportunities for local researchers and technicians to engage. In fact, some SIDS have required international consultants to draft NBSAPs or Biodiversity Reports themselves, though these documents set out to capture national nuances, and the exercise of drafting them themselves provides opportunity for knowledge building within the country. This also limits

the pool of national experts that can engage in implementation activities.

Data Generation & Knowledge Management

One of the challenges in SIDS which may sound counter-intuitive, is that the proliferation of knowledge management hubs and data portals, may in fact be duplicative, and may create new silos of knowledge²⁵⁰. This adds strains for already limited staff, as to where to obtain the most relevant data/information. The Maldives notes for instance, that often funds are directed towards the same type of data platforms²⁵¹.

Another need expressed by SIDS, is that more specific data is required. As was noted by Samoa, for instance, there is an interest to receive technical and financial capacity in the identification of IAS, their impact in economic, social and environmental terms, and their spatial spread²⁵². Antigua and Barbuda noted that capacity-building is needed throughout IAS eradication programmes, from the initial research stage to the identification and creation of inventories and databases, and subsequently in the monitoring and evaluation of their status

and trends²⁵³. Cuba further notes that more knowledge needs to be shared on how to fulfill the Nagoya Protocol²⁵⁴, without which countries will not be able to fully implement the CBD. Antigua also noted the shortcomings of shared data; for instance, that of regional satellite imagery, whose resolution is too poor to be used by small countries²⁵⁵.

3.2 Enabling Conditions

Enabling conditions influence the likelihood that supporting conservation initiatives will result in the desired outcomes for biodiversity results²⁵⁶. Enabling conditions are context-specific, but given similarities that many SIDS experience, it is possible to draw out similar constraints faced.

In this section, the assessment will highlight the existing constraints in employing the Whole-of-Government, Whole-of-Society, and Gender Equality approaches. This Section will also cover constraints relative to integration with other MEAs and addressing the full range of indirect drivers causing biodiversity loss.

3.2.1 Whole-of-Government Approach

Summary: Constraints in Promoting the Whole-of-Government Approach

► Policy instruments that undercut biodiversity objectives

- 248 Olds, K. 2007. Global assemblage: Singapore, foreign universities, and the construction of a "global education hub". *World Dev.* 35, 959–975
- 249 Zitoun, R.; Sander, S.G.; Masque, P.; Perez Pijuan, S.; Swarzenski, P.W. 2020. Review of the Scientific and Institutional Capacity of Small Island Developing States in Support of a Bottom-up Approach to Achieve Sustainable Development Goal 14 Targets. *Oceans*, 1, 109-132. doi.org/10.3390/oceans1030009
- 250 Rao, L. & McNaughton, M. 2019. A Knowledge Broker for Collaboration and Sharing for SIDS: The Case of Comprehensive Disaster Management in the Caribbean in *Information Technology for Development*
- 251 AIS Workshop. Nov 22, 2021
- 252 UNEP-WMC. Biodiversity Related Capacity Building: Informing the Preparation of a Long-Term Strategic Framework for Capacity-Building Beyond 2020
- 253 Ibid
- 254 Caribbean Regional Workshop. October 2021
- 255 Ibid
- 256 USAID. Conservation Enterprises. Available online at: biodiversitylinks.org/learning-evidence/conservation-enterprises/knowledge-base/page/learning-question-1.-does-building-the-enabling-conditions-lead-to-establishment-of-a-successful-and-sustainable-enterprise-1#ec-enterprise-establishment

- Lack of information, data and numbers that could be mainstreamed into other sectors
- Piecemeal and uncoordinated approach of implementing biodiversity conservation activities
- Political agenda and vested interests may not be conducive to conservation activities

One point that is apparent through exploring challenges linked to implementation support mechanisms, is that biodiversity cannot be siloed or addressed through one government agency. Given the highly integrated nature of biodiversity, especially in a SIDS context, a whole-of-government approach is needed to address conservation needs. Despite the value of nature to tourism, agriculture, fisheries, planning or health, SIDS face constraints in employing a whole-of-government approach to address their biodiversity objectives.

The whole-of-government approach is also aligned with SIDS' ridge-to-reef (R2R) approaches, which by nature require whole-of-government and society approaches. R2R requires integrated approaches to coastal, terrestrial and marine eco-systems, while emphasizing the interconnections between the natural and social systems from the mountains, through coastal watershed to the sea. In the context of means of implementation, this means that if an initiative is looking to carry out say restoration of coastal mangroves, it requires the informed engagement and partnership of upstream and downstream actors explore direct and direct links on and from restoration exercises. Given how small SIDS are, nowhere else is the connection between upstream and downstream felt so quickly and acutely.

In Belize, the importance of the

whole-of-government approach has been recognized. The NBSAP seeks harmonization of policies that positively impact biodiversity across all government departments. National targets call for the creation and strengthening of synergies between government departments to harmonize sectoral policies and legislation designed to protect biodiversity, and for setting legislative frameworks and standards in the public and private sector that improve the balance between national development and the need to protect ecosystem services and the environment²⁵⁷. However, the limitation/barrier for this target has been the lack of prioritization for the endorsement of environmental policies at the Cabinet level. Slow-moving political processes can thus impede effective actions despite having buy in from key actors.

Incoherent Policy Instruments

Another constraint to mobilizing a whole-of-government approach, occurs when policy instruments undermine one another. In Belize for instance, there are policies that disincentivize conservation. One prominent disincentive relates to land tenure and land tax, which favors development over conservation. Under the current tax system, landowners pay a higher tax rate for land that is 'undeveloped', this results in many landowners clearing forested land to reduce payable taxes, decreasing landowner's will to maintain forest cover on private lands²⁵⁸. The R2R implications are

the following: recent research is demonstrating that deforestation and land use changes/conversion to agriculture, is now changing the colour/composition of materials discharged into rivers and the sea, and that these materials are not being broken down in the process. There is concern of what kind of organic non-organic materials are flowing into the oceans, how they will affect nutrient cycles, ecosystems, sea grasses and coral reefs²⁵⁹.

St. Vincent and the Grenadines notes that there is a need to develop biodiversity-positive incentives in countries to reinforce biodiversity protection actions²⁶⁰. In order to do so, the following is required²⁶¹:

- Guidance materials, including examples of best practices in small island developing states, on the development and implementation of biodiversity-positive incentives;
- Technical support to identify incentives and subsidies that have perverse impacts, including assessment of the full economic, social, and environmental costs of such incentives and subsidies;
- Technical support to identify and assess the opportunities and constraints to removing, reforming or phasing out harmful incentives;
- Support to formulate biodiversity-positive incentive programmes in key economic sectors such as agriculture, tourism and fisheries;

257 Belize. 2016. National Biodiversity Strategy and Action Plan

258 Belize. 2019. 6th National Report on the Convention for Biological Diversity

259 University of Southampton. 2021. Deforestation Darkening the Seas Above the World's Second Biggest Reef. Available online at: southampton.ac.uk/news/2021/06/belize-reef-deforestation.page

260 St. Vincent and the Grenadines. 2019. 6th National Report on Biological Diversity

261 Ibid

- Technical guidance to incorporate the value of biodiversity as an asset, as well as risks to biodiversity, in country risk profiles for insurance and disaster risk reduction purposes;
- Guidance on how to build environmental safeguards into the design and implementation of fiscal policy;
- Guidance and examples of best practice on incentivizing and promoting corporate social responsibility;
- Capacity-development to enable effective implementation of Strategic Environmental Assessment, to help ensure that biodiversity and other environmental considerations are adequately taken into account in national planning and policymaking.

Appropriate policy decisions could also positively reinforce biodiversity conservation. In Belize, the choice to pursue international certification in production, has incentivized agriculture and aquaculture sectors to reduce their environmental footprint²⁶².

Competition with other Sectors

A challenge to the whole-of-government approach is that biodiversity is simply not prioritized before more lucrative industries such as tourism, mining or agriculture. In some cases, some of the agents of said industries may be foreign owned, and have favourable contracts in place with the national government. The ability to influence or include these stakeholders into conservation activities may be challenging. In some cases, conservation activities may be perceived as another cost or red tape — this may cause them to challenge requirements. Without data or hard numbers as to how biodiversity serves economies, other sectors may have political clout at the cost of conservation activities.

Piecemeal and coordinated approaches to biodiversity approaches, can also act as a constraint for effective conservation and a whole-of-government approach. In Mauritius for instance, it was noted that the National IAS Plan

(2010-2019) was not fully implemented, and activities were carried out in a piecemeal manner driven by perceived needs of concerned ministries and/or institutions²⁶³.

One can also imagine that many of these constraints will be exacerbated by COVID-19. When looking at the devastation of economies, the levels of debt, one can assume that countries will be doing all they can to attract both investors and tourists²⁶⁴. Tourism is a source of both formal and informal employment in the SIDS. In the Caribbean, tourism accounts for nearly 27 % of employment; in the AIS 24% of employment, and in the Pacific 20 %²⁶⁵. While it is a driver of economic development, the sector also contributes to ecosystems degradation, biodiversity loss and more than 5% of greenhouse gases²⁶⁶. As a result, there is a great risk that in attempts to promote the revival of the sector, biodiversity could be undermined, unless a whole-of-government and whole-of-society approach is adhered to.

3.2.2 Whole-of-Society Approach

Summary: Constraints with Implementing Whole-of-Society Approach

Civil Society

- Many organizations in the civil society are of a small size, have a lack of resources and staff for carrying out complex activities
- Smaller, localized civil society actors are unable to access donor or national level-funding (Small Grants Programme being an exception but not widespread to all SIDS)
- Political differences and incoherence with national priorities of the day
- Project-dependent engagement: CSOs get invited to participate during the project life, and once the project is over, the engagement platforms cease; CSOs asked to participate in workshops without meaningful ownership of project activities. Most projects are managed by govt ministries
- CSO workload and costs go up when engaging in biodiversity projects
- Private sector interests have more clout than civil society interests

262 Belize. 6th National Report on the Convention for Biological Diversity

263 Mauritius. 6th National Report on the Convention for Biological Diversity. 2021

264 OECD. 2020. Meddeb, R. How Can Island States Reimagine Tourism for Green Economy? OECD Matters. Available online at: oecd-development-matters.org/2020/10/21/how-can-islands-reimagine-tourism-for-green-recovery/

265 Ibid

266 Ibid

Private Sector

- Small private sector
- Private sector dominated by international companies (tourism, extractives, agriculture), may not have shared vision/commitment to long-term conservation
- Lack of knowledge of national laws and regulations
- Ability to influence the national agenda with promises of growth, tourism, and economic development
- Pushback on regulations which add costs or delays

Women

- Lack of decision-making roles in community processes
- Burdens of household family responsibility infringing on time and capacity to engage on biodiversity conservation
- Lack of mediums through which to mobilize
- Lack of meaningful engagement in existing interventions; “head count” approach to participation
- Women’s knowledge is not collated in meaningful ways
- Biodiversity conservation is not integrated into livelihood activities such as working in the tourism or fisheries sector

Indigenous Communities

- Traditional systems are changing; often regarded as irrelevant by broader society which ignores indigenous contribution to conservation
- Difficult to document, extricate what is and is not traditional knowledge as it is pervasive
- Lack of integration of traditional knowledge into science-policy development processes
- Lack of collection/dissemination of data on use of traditional knowledge
- Lack of knowledge on the nexus/potentials between traditional knowledge and modern technology
- Without biodiversity valuations, traditional knowledge in protecting said biodiversity is often undervalued

During the Samoa conference which resulted in the Samoa Pathway, it was suggested that SIDS could model-whole-of-society approaches to sustainable development, while acting as stewards of oceans on behalf of all humanity²⁶⁷.

In the United Nations Summit on Biodiversity held at the level of Heads of State and Government on 30 September 2020, it was noted that fragmentation of measures was a key reason for lack of global efficiency in tackling the biodiversity crisis. As such, it was noted

that mainstreaming environmental policy could only be successful through a “whole-of-society” approach that includes government, private sector, civil society, indigenous people, youth, women and local communities, as well as recognizing the role of education to provide the next generation with tools for biodiversity protection²⁶⁸.

One of the reasons a whole-of-society approach is necessary for conservation, is that there is generally a challenge in SIDS of managing natural resources in the public domain. Open access to

common resources has contributed to their exploitation²⁶⁹ — this is especially seen in fisheries, hunting, poaching, and sand mining. It is also necessary to ensure that decision-making in various sectors is mutually reinforcing and do not undermine one another.

Another SIDS-specific constraint to the whole-of-society approach is the issue of fragmented national territory. The Maldives for instance, is made up of approximately 1,200 coral islands in 22 geographical atolls²⁷⁰; this poses challenges for engagement across whole-of-so-

267 IISD. 2014. Small Island Developing States: Shaping the Sustainable Development Agenda in a Terrestrially Focused World. Available online at: sdg.iisd.org/commentary/policy-briefs/small-island-developing-states-shaping-the-sustainable-development-agenda-in-a-terrestrially-focused-world/

268 President of the General Assembly

269 Teelucksingh, S., Nunes, P., Perrings, C. 2013. Biodiversity-Based Development in Small Island Developing States. Environment and Development Economics 18: 381–391, Cambridge University Press

270 Government of Maldives. Atolls of Maldives. Available online at: atollsofmaldives.gov.mv

ciety and requires novel approaches to engaging societal partners.

Engagement of Civil Society

As in many countries, relationships among different societal sectors (government, business, and civil society) in SIDS is complex one²⁷¹. At times, these relationships can suffer from distrust, misconceptions, and misunderstanding, and spaces for such dialogue are often absent or inadequate²⁷². Much of the partnering activity in SIDS, typically appears to take place through informal networks, relationships, and arrangements²⁷³.

Some of the constraints that have prevented civil society from engaging meaningfully in conservation activities, include the following:

- Many organizations in the civil society are of a small size, have a lack of resources and staff for carrying out complex activities. In Antigua and Barbuda, it was noted that the Civil Society Sector also requires resources and support so that it may provide its expertise in biodiversity conservation²⁷⁴.
- Smaller, localized civil society actors are unable to access donor or national level-funding (Small Grants Programme being an exception but not widespread to all SIDS).
- Political differences and inco-

herence with national priorities of the day. It was noted by Suriname, that challenges can arise if the vision of the government and CSOs is not aligned²⁷⁵.

- Project-dependent engagement: CSOs get invited to participate during the project life, and once the project is over, engagement platforms cease. It is crucial to consider supporting or scaling that up, rather than establishing new and often competing initiatives with different projects²⁷⁶.
- Superficial engagement. CSOs asked to participate in workshops without meaningful ownership of project activities.
- International projects are mostly managed by government ministries — they work with CSOs that they have favourable experiences with.
- CSO workload. In Trinidad and Tobago, that CSOs were asked to engage on protected area committees; this took them away from their day jobs, added costs for travel and had impediments on their levels of participation²⁷⁷. It also added to their labour and there was a sentiment that government officials were being paid for the same work while civil society was not.
- Private sector interests have more clout than civil society interests.

While COVID-19 may add to these constraints by limiting interactions among various civil society institutions, adding food stress, and reducing resources, it has also demonstrated the potentials for collaboration. Communities in Fiji, Samoa, Solomon Islands and Palau, saw a traditional return of local food sharing, and bartering²⁷⁸. It was noted that a “Barter for Better Fiji” Facebook page, attracted a membership of 20 % of the population²⁷⁹. This demonstrates that even with constraints there are vehicles present to mobilize various kinds of engagement toward a consolidated vision. In the Maldives, it was noted that representatives from remote islands who were unable to previously attend meetings and workshops, have been able to engage more regularly through digital means.

While online collaborations may have given greater access to some civil society partners, there is the issue of the digital divide and whether new inequalities may emerge as a result.

Engagement of Private Sector

There are significant challenges to engage the private sector in SIDS. Section 3.1. highlighted the challenges in mobilizing resources. A key feature of this is that SIDS have trouble attracting and deploying private capital²⁸⁰, which reflects the limited financial participation of the private sector

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- 271 UN DESA. 2021. Yezza, H., Prescott D., Stibbe, D. The Partnering Initiative, Goransson, O. Small Islands, Genuine Partnerships. Available online at: sdgs.un.org/sites/default/files/2021-07/SIDS%20Partnership%20Guide.pdf
- 272 Ibid
- 273 Ibid
- 274 Caribbean SIDS Workshop, October 24th, 2021
- 275 Ibid
- 276 UN DESA. Yezza, H., Prescott D., Stibbe, D. The Partnering Initiative, Goransson, O. 2021. Small Islands, Genuine Partnerships. Available online at: sdgs.un.org/sites/default/files/2021-07/SIDS%20Partnership%20Guide.pdf
- 277 FAO. Hofstede, R. & Hasan, E. 2020. Terminal Evaluation of the Project “Improving Forest and Protected Area Management in Trinidad and Tobago”. Available online at: fao.org/3/cb0707en/cb0707en.pdf
- 278 Wabnitz CCC, Blasiak R, Harper S, Jouffray J-B, Tokunaga K, Norström AV. 2021. Gender Dynamics of Ocean risk and resilience in SIDS and coastal LDCs. Ocean Risk and Resilience Action Alliance (ORRAA) Report. Available online at: [re searchgate.net/publication/355439536_Gender_Dimensions_of_Ocean_Risk_and_Resilience_in_SIDS_and_Coastal_LDCs](https://searchgate.net/publication/355439536_Gender_Dimensions_of_Ocean_Risk_and_Resilience_in_SIDS_and_Coastal_LDCs)
- 279 Daniel, H. 2020. For Better Fiji: Community Response to Covid-19. borgenproject.org/barter-for-better-fiji
- 280 OECD. 2015. Small Island Developing States (SIDS): Financing the 2030 Agenda for Sustainable Development. Available online at: oecd.org/dac/environment-development/SIDS_flyer_COP.pdf

in biodiversity protection. Beyond just the financing aspect, the key challenges to the engagement of the private sector include:

- Small private sector—this is especially a concern when sustainable development projects such as the GEF or GCF require three quotes for tender before approving contracts with the private sector. In SIDS, the inability to get three quotes is a barrier slowing processes and discouraging private sector partnerships.
- Private sector dominated by international companies in tourism, extractive, development, industries
- Lack of knowledge of national laws and regulations
- Ability to influence the national agenda with promises of growth, tourism and economic development which may be at the cost of biodiversity
- Pushback to regulations which add costs or delays to private development.

There are cases where there is positive engagement from the private sector. In the case of Fiji, for instance, the private sector participates in conservation activities. Various private sector actors through their corporate social responsibility programs have partnered with NGOs and government agencies in protecting Fiji's biodiversity. For example, the ANZ Bank Staff Foundation in Fiji champions the restoration of Fiji Sago Palm habitats; a group of businesses clean up shore areas, plant mangroves and trees²⁸¹. Similarly in Suriname, there are initiatives underway to foster public-private partnerships in small-scale mining industries to promote

environmentally-friendly practices. The private sector is also engaged in establishing waste-collection sites for plastics²⁸².

In Jamaica, the government has established a Green Business Jamaica Certification Programme (GBJ), which is a voluntary programme aimed at the private sector to promote pollution prevention and resources conservation. The programme is a key element to mainstream conservation principles in the private sector and support the country's compliance with national and international environmental standards²⁸³.

Engagement of Indigenous Communities

Indigenous and traditional communities are often well positioned to observe local ecosystems. Indigenous, traditional and local knowledge systems constitute one of the largest bodies of human knowledge about biodiversity and ecosystems, but are rarely recognized as resources for monitoring, managing²⁸⁴ or informing policy development.

The engagement of indigenous communities differs across SIDS. In some countries such as Fiji, the government has initiated programmes to document traditional ecological knowledge such as on reef fish spawning, totem fish, plants and birds and has designed a model legislative framework that specifically looks at the protection of indigenous knowledge and expression of culture. The exercise involves collection, recording and documentation of indigenous tangible and intangible cultural heritage. The Fiji Ministry of Education has also developed educational curriculum on indigenous languages, traditional methods of

agriculture, fire management²⁸⁵. In others, there is sometimes a lack of clarity or agreement on who is considered as part of an indigenous community, such as in Trinidad and Tobago. Despite this, the common challenges that arise when examining the participation of indigenous communities in SIDS, are:

- Traditional systems are changing; often regarded as irrelevant by broader society which ignores indigenous contribution to conservation
- Difficult to document, extricate what is and is not traditional knowledge as it is pervasive
- Lack of integration of traditional knowledge into science-policy development processes
- Lack of collection/dissemination of data on use of traditional knowledge
- Lack of knowledge on the nexus/potentials between traditional knowledge and modern technology
- Without biodiversity valuations, traditional knowledge in protecting said biodiversity is often undervalued.

The engagement of traditional communities is also tied to how effectively SIDS can implement the Nagoya Protocol; an area which requires significant resources as noted by Cuba²⁸⁶.

In order to integrate indigenous communities effectively, it is useful to make reference to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services Global Assessment on Indigenous Peoples and Local Communities, which recognizes that nature is declining less rapidly on lands managed by indigenous communities, but is declining

281 Government of Fiji. 2020. Fiji Sixth National Report to CBD

282 Republic of Suriname. 2019. Sixth National Report to the United Nations Convention on Biological Diversity

283 Jamaica. 6th National Report for the Convention on Biological Diversity

284 UNESCO. UNESCO's Commitment to Biodiversity. Available online at: en.unesco.org/themes/biodiversity/knowledge

285 Government of Fiji. 2020. Fiji Sixth National Report to CBD.

286 Caribbean SIDS Workshop, October 24th, 2021

nonetheless²⁸⁷. This assessment also notes that many of the management practices by indigenous and local communities are compatible with biodiversity conservation practices²⁸⁸, which offers opportunities for collaborations, partnership and learning of lessons by the broader society.

As some traditional systems are changing, the necessary capacity is not there to glean important lessons and knowledge. As is noted in the Marshall Islands, traditional systems have enabled people to have a sustainable lifestyle. However, due to changes in lifestyles, expectations, and population growth, these traditional practices are breaking down and neglected, and no longer considered relevant²⁸⁹. It is noted that traditional skills for building of houses, boats and fishing gear are not used any more as new materials are being used instead. Imported tin roofing, plywood, and lumber have taken the place of traditional thatch roof houses. Outboard motorboats have replaced traditional outrigger canoes in much of the urban centers as well as outer island communities. Traditional fishing traps and other methods have been set aside for modern fishing methods²⁹⁰.

One of the additional challenges is that the degree to which traditional knowledge is being incorporated in biodiversity conservation, is not quite known. The 6th National Report of the Marshall Islands notes that although traditional

knowledge and skills are incorporated in developing community-based managed conservation areas, there is no assessment of how and to which degree²⁹¹. In a sense, traditional skills and knowledge can be intrinsically bound in practices such as in traditional medicine, handicrafts²⁹² and challenging to differentiate.

Engagement of Women and Gender Equality

Challenges are experienced differently by women and men, and the constraints experienced by women in conserving biodiversity in SIDS must be highlighted to support inclusive transformations. In some countries, the differences in how women and men impact the environment can be linked to socioeconomic roles in society. In the Solomon Islands for instance, men tend to own and have access to more productive fishing gears²⁹³. In Haiti, there are gendered roles in fisheries, men fish, while women buy and sell the fish as commercial agents. The impact of COVID-19 will also have a disproportionate impact on women and their livelihoods, as in many cases women have filled caregiving roles for families, putting their health at risk.

One of the constraints in engaging women has been the broader socio-economic barriers that have limited women's power and agency in decision-making. In societies that are traditionally patriarchal, it has been found that this factor impacts how women will recover

from natural disasters²⁹⁴. Across several Caribbean islands, impacts from tropical storm Erika, Hurricane Maria, and cyclone Winston, were found to put a disproportionate burden on women.

In order for whole-of-society approaches, the constraints facing women must be recognized. Fiji, for instance, has recognized the importance of meaningful engagement of women in biodiversity-related activities. A parliamentary decision instituted that women must make up 50% of representatives in all community development and education boards²⁹⁵. Women have also been able to lead many rehabilitation and restoration projects throughout Fiji, and taken in a key role in monitoring oysters. One of the successes has been through village-led programmes, which has allowed women to prioritize protecting sites such as freshwater reed ponds from livestock, which are also beneficial to them²⁹⁶.

There is also the need to recognize the influence of women's voices, and how they can be used to raise awareness and reach people. In the World Bank project Coastal and Biodiversity Management in Guinea-Bissau, which supported local investments through the Fund for Local Environment Initiatives, the terminal evaluation confirmed that the outcome of drinking water and improved local health had been achieved in nearly all the communities where the women's groups were in charge of the water pumps

287 IPBES. 2020. Key messages from the IPBES Global Assessment of particular relevance to Indigenous Peoples and Local Communities. IPBES secretariat, Bonn, Germany

288 Ibid

289 Government of Maldives. 2021. Farukoe. Available online at: farukoe.com

290 Republic of the Marshall Islands Sixth National Report Convention on Biological Diversity (2020)

291 Ibid

292 Ibid

293 Kruijssen, F. et al. 2013. Livelihoods, Markets, and Gender Roles in Solomon Islands: Case Studies from Western and Isabel Provinces

294 Kopf, A., Fink, M. & Weber, E. 2020. Gender vulnerability to climate change and natural hazards: The case of Tropical Cyclone Winston, Fiji. in Mapping Security in the Pacific, Routledge

295 Government of Fiji. 2020. Fiji Sixth National Report to CBD

296 Ibid

and their maintenance²⁹⁷.

There are however several constraints facing women in SIDS. It is worth noting that the cultural contexts and extent of patriarchal norms differ in SIDS. These constraints are those that can be applied to most:

- Lack of decision-making roles in community processes
- Burdens of household family responsibility infringing on time and capacity to engage on biodiversity conservation
- Lack of mediums through which to mobilize
- Lack of meaningful engagement in existing interventions; “head count” approach to participation in projects
- Women’s knowledge is not collated in meaningful ways
- Biodiversity conservation is not integrated into livelihood activities such as working in the tourism or fisheries sector.

Some ways to manage constraints in including women include the following:

- The differentiated relationship of women and men to biodiversity must be acknowledged if the means to implement targets are to be realized. This differentiation must be incorporated within projects, policies, engagement strategies, and alternative livelihood development to avoid gender blind initiatives.
- There needs to be greater documentation of women and marginalized communities as custodians of vulnerable biodiversity. With growing pressures of development, economic growth, particularly in the post-COVID context, traditional knowledge and specialized techniques and roles need to be better under-

stood and integrated into policy making.

➤The vulnerability of women and marginalized communities linked to eroding biodiversity must be recognized. This would help map out priority sites for intervention, promote coordination with other projects and initiatives to mutually benefit various development schemes e.g. livelihoods, health, blue economy approaches.

➤The unanticipated effects of biodiversity policies and projects must be explored: What social implications come with investing in certain ecosystems and not others? How do women benefit? Does it create any other stressors or unanticipated consequences? Does it create additional labour burdens or worsen equality? Are conservation activities harming women — if so, what mitigating activities can take place to balance for that? Women are key actors in industries related to biodiversity (tourism, agriculture and fisheries), and any social impacts in those areas must be considered for sustainable conservation activities.

➤Project design and evaluations cannot merely include quantifiable gender indicators (e.g. how many women participated or benefitted) but must also focus on qualitative gender indicators. Qualitative indicators are expected given that they are easier to assess. However, quantitative indicators miss some of the qualitative effects and impacts of initiatives. i.e. did initiatives create new opportunities for women? Did they create any conflicts within communities? Were some women targeted and others not—how did this affect the

dynamic in a given community? Were there any reputational risks or rewards in engaging with the project/initiatives etc. Conservation initiatives and projects, in line with the UN-System Wide Action Plan (UN-SWAP) approach, should provide some intersectional analyses of how social groups are affected by problems or biodiversity projects being designed²⁹⁸.

Projects targeting access to genetic resources and benefits sharing (ABS), offers opportunities to measure qualitative ways in which indigenous communities and women can benefit. If we look at the Terminal Evaluation for the UNEP Project Advancing the Nagoya Protocol in the Caribbean Region for instance, there is a good example of selecting sites of consultation based on presence of indigenous communities, and the naming of several indigenous communities, to understand the full impact of the project.

297 GEF. Independent Evaluation Office. Strategic Country Cluster Evaluation. Available online at: gefio.org/sites/default/files/documents/reports/scce-sids.pdf

298 UN-SWAP. A Plan to Improve Gender Equality and the Empowerment of Women Across the UN System. Available online at: [learning.un.org/CONT/GEN/CS/I_Know_Gender_\(English\)/story_content/external_files/M03_S16_16_17_UN_SWAP_brochure.pdf](https://learning.un.org/CONT/GEN/CS/I_Know_Gender_(English)/story_content/external_files/M03_S16_16_17_UN_SWAP_brochure.pdf)

3.2.3 Integration with Relevant Multilateral Environmental Agreements and Other Relevant Processes

Summary: Constraints in Managing, Integrating with other MEAs

- Too many international processes, onerous requirements for various inputs and participation that small country staff have trouble keeping up with
- Planning and reporting takes away from implementing activities
- Transportation and travel from SIDS to international meetings are challenging both in terms of time and cost. SIDS can often just send one delegate
- While there has been a push for a One UN approach, this is not always manifested. Duplicating, overlapping or uncoordinated interventions within SIDS
- Biodiversity is not mainstreamed within other international fora. While the SDG goals have created more space for integrating various environmental issues, biodiversity is still not as salient as climate change.
- In international fora, representatives from various SIDS usually come from the foreign affairs divisions. This may limit the kind of engagement on biodiversity issues that is needed

SIDS play an important role in various international processes (see Section 2.2). However, by dint of their characteristics, there are challenges in engaging some of these processes, which could otherwise support sustainable development. The following are some of the issues highlighted by SIDS:

➤ *Burden of Reporting.* There are too many international processes, with onerous requirements for various inputs and participation that small country staff have trouble keeping up with. If substantial time is spent merely responding and participating in global processes, it takes away from actually implementing some of the recommendations from various conventions and agreements. Antigua and Barbuda, for instance, have developed a National Environmental Information System to centralize reporting so that it can respond to various MEA demands²⁹⁹. The system still requires improvement, but highlights the point that ongoing reporting is taxing, and that it would be beneficial

for some of these fora to centralize requirements, so that one mainstreamed report could respond to several requirements.

➤ *Subsidized participation.* SIDS noted that participation in the climate change forum is far more active, because the UN-FCCC finances a variety of ongoing activities, through which SIDS can allocate staff³⁰⁰. CBD financing for enabling activities is sporadic. This means that people can be hired to conduct the enabling activity but when the deliverable is completed, the momentum is lost.

➤ *Cost.* Transportation and travel from SIDS to some of these international gatherings are challenging both in terms of time and cost. SIDS can often just send one delegate, while other countries can send larger delegations and participate more actively as a result. At times, SIDS can agree to send just one regional delegate among various countries to represent their interests.

➤ *Lack of Coordination.* While there has been a push for a One UN approach, this is not manifested. There is competition among UN agencies to obtain funding for projects in SIDS, and there can be duplicating, overlapping or uncoordinated interventions within SIDS. In Haiti for example, there are currently projects being implemented by UNDP, UNEP, FAO, IADB, World Bank — and that is just by GEF implementing agencies. There are also a variety of bilateral and international NGO initiatives underway which foster a complex environment of project-based development managed by a rotation of international actors. The Seychelles note that parallel meetings are particularly challenging; SIDS with small staff need to choose what meeting they can attend³⁰¹.

➤ *Need for Biodiversity Mainstreaming.* Biodiversity is not sufficiently mainstreamed within other international fora. While the SDG goals have created more space for inte-

299 Caribbean Regional Workshop, October 24, 2021

300 AIS Regional Workshop. November 22, 2021

301 AIS SIDS Regional Workshop. November 22, 2021

grating various development issues, biodiversity is still not as salient as climate change or health related issues. It would be beneficial for SIDS, if issues were addressed in an integrated manner to respond to the realities in SIDS themselves. The profile of biodiversity still has to be raised, despite nature being central to UNFCCC or being subjects in previous G8 meet-

ings. There is growing potential of this happening, with the recognition of the blue economy, and SIDS being large ocean states. This needs to be leveraged further, and enhanced data on biodiversity could potentially help achieve this. There is also the need to support funding of biodiversity activities from other mechanisms such as disaster and risk reduction, climate

change, food and agriculture, health and security etc.

► **Governance.** In international fora, representatives from various SIDS usually come from the foreign affairs divisions. This may limit the kind of engagement on biodiversity issues that is needed, to advance against conservation goals.

3.2.4 Addressing full range of indirect drivers of biodiversity loss

Summary: Indirect Drivers of Biodiversity Loss

- Ridge-to-reef approach useful to consider upstream/downstream impacts in SIDS
- Some environmental activities, green solutions may inadvertently degrade biodiversity
- Demographic changes
- Changing patterns of consumption
- Invasive Alien Species
- Political Instability/Changing Priorities
- COVID-19 Pandemic
- Fiscal instruments, incentives subsidies for agricultural production fisheries

Many of the indirect drivers of biodiversity loss are influenced by societal values and behaviours, which include production and consumption patterns, increasing populations, trade and technological innovations and global governance³⁰². As noted by the IPBES, goals for conserving and sustainably using nature cannot be met by current trajectories, and may only be achieved through transformative changes across economic, social, political and technological factors. For SIDS this is all the more urgent due to fragile ecosystems and high reliance on nature-based assets.

Addressing the full range of indirect drivers of biodiversity loss would also benefit from a R2R approach,

analyzing downstream and upstream impacts of activities on ecosystems.

There are several lessons learned from the Strategic Plan for Biodiversity 2011-2020 that are useful and applicable for SIDS, in fostering improved understanding on the indirect drivers of biodiversity loss:

- The need for greater efforts to address the direct and indirect drivers of biodiversity loss, including through integrated and holistic approaches to planning and implementation, and greater interaction among government ministries, economic sectors and society generally³⁰³.

► The need to strengthen further the integration of gender, the role of indigenous peoples and local communities and the level of stakeholder engagement.

► The need to strengthen national biodiversity strategies and action plans, and associated planning processes, including their adoption as whole-of-government policy instruments.

One of the constraints at the heart of identifying indirect drivers is that there is not enough knowledge or data on ecosystem contribution to GDP, to food, to health, and to the economy at large. Without that knowledge it is challenging to value resources

302 IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J. Settele, E. S. Brondizio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Armeth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany

303 CBD. 2020. Global Biodiversity Outlook 5. Montreal. Available online at: cbd.int/gbo5

and measure impacts on them.

However, much of this cannot be achieved due to the following constraints that have been highlighted in earlier sections:

► *Environmental activities which inadvertently negatively impact biodiversity.* The focus on green technologies or green solutions could lead to negative impacts on biodiversity. For instance, the interest in sea-bed mining for minerals that could power electric car batteries, could have devastating effects on marine ecosystems. Sometimes well-intentioned projects such as tree planting with invasive species, or non-native timber, could undermine soil biodiversity. In Trinidad and Tobago, the planting of bamboo has toppled riverbanks, affecting riverine environments. Nature-based solutions require careful accompaniment and monitoring to ensure that there are not indirect effects in biodiversity.

► *Population changes.* In Papua New Guinea, a high natural birth rate is leading to a rapidly increasing population and increased consumption. It is noted that an open market, demand-driven growth-based paradigm has led to an increase of population and a high appetite of resources to sustain it. Stabilisation of the population is seen as a requirement to achieve biodiversity targets³⁰⁴. São Tome further notes that rapid popula-

tion growth is putting increasing pressure on natural resources including timber, fish stocks, and sand (for construction), with expected consequences for biodiversity, but in the absence of a firm knowledge base it is not possible to assess impacts or the sustainability of various production sectors. It is also worth noting that population growth and its impacts on biodiversity were identified in an IUCN survey as an area that was not sufficiently addressed by the draft post-2020 biodiversity framework, but is of great relevance³⁰⁵.

► *Changing Patterns of Consumption.* Human consumption leads to considerable losses in biodiversity. Food consumption is perceived as the greatest driver to biodiversity loss in most countries³⁰⁶. According to existing data, SIDS have more the double the proportion of overfished stocks compared to the rest of the world and more than double the catch loss³⁰⁷. Another issue is that it appears that overfishing, in addition to impacting biodiversity can adversely affect other sectors using the same ecosystems such as tourism and recreation. According to Hawkins and Roberts, there is considerable evidence that fishing pressure in in-shore fisheries negatively affects coral reefs that support tourism in the Caribbean³⁰⁸. In the Maldives it is noted that the country is totally dependent on fisheries and coral reef resources for income, food

security and poverty alleviation, with over 40% of the country's GDP accounting for marine and coral reef resources. However, the over-exploitation of fisheries and coral reef resources is a real threat to biodiversity³⁰⁹. In Tuvalu, one of the challenges is the increased consumption of processed, imported food, which also reduces the interest in native foods and very little has been done to maintain genetic diversity of agriculture³¹⁰.

The Global Biodiversity Outlook 5 notes that unsustainable patterns of production and consumption, population growth and technological developments will lead to a decline in biodiversity and have a particularly detrimental effect on indigenous peoples and local communities, and the world's poor and vulnerable, given their reliance on biodiversity for their wellbeing³¹¹.

In Saint Lucia it is noted that there is little data/information available on sustainable consumption. The country notes that the development of a national sustainable consumption and production policy, and the determination of safe ecological limits for key productive sectors and ecosystems, would be particularly relevant to advance on this.

Beyond fisheries, there is also demand for land and construction. In Tonga, there is high demand for urbanization and residential space, due to Tonga's growing population³¹².

There are also positive examples

304 Papua New Guinea. 2019. 6th National Report to the Convention on Biological Diversity

305 IUCN. Invasive Alien Species. Available online at: iucn.org/commissions/ssc-groups/cross-cutting/invasive-species

306 Harry C. Wiling, Aafke M. Schipper, Michel Bakkenes, Johan R. Meijer, and Mark A. J. Huijbregts. 2017. Quantifying Biodiversity Losses Due to Human Consumption: A Global-Scale Footprint Analysis in Environmental Science & Technology. Available online at: pubs.acs.org/action/showCitFormats?doi=10.1021%2Facs.est.6b05296&href=/doi/10.1021%2Facs.est.6b05296

307 Teelucksingh, Sonja & Nunes, Paulo & Perrings, Charles. 2013. Biodiversity-based development in Small Island Developing States. Environment and Development Economics. 18. Available online at: researchgate.net/publication/259434103_Biodiversity-based_development_in_Small_Island_Developing_States

308 Hawkins, J.P. and C.M. Roberts. 2004. 'Effects of artisanal fishing on Caribbean coral reefs', Conservation Biology 18: 215–226

309 Maldives. 6th National Report on the Convention on Biological Diversity

310 Tuvalu. 2020. Sixth National Report to the Convention on Biological Diversity

311 CBD. 2020. Global Biodiversity Outlook 5. Montreal

312 Kingdom of Tonga. 2020. Sixth National Report on the Convention on Biological Diversity

that exist in Micronesia on promoting sustainable consumption to support biodiversity protection. In Micronesia, for example, regulations exist across all four states in relation to the harvesting of specific species, to prevent over consumption. Examples include a ban on sea cucumber harvesting for commercial purposes, a seasonal ban on turtle harvesting, and size regulations related to various fish species. There are also commercial fishing bans across all four states for particular species and in 2016, the Chuuk Coastal Fisheries Management Act was legislated to protect numerous threatened fish species³¹³.

➤ *Political Instability/Changing Priorities.* Transitions in government can often impact the environmental file negatively, especially since in some countries, such as Haiti for instance, the Ministry of Environment already receives comparatively less of the overall country budget. Given the at times low profile that biodiversity occupies in some SIDS, changes in government require re-socialization of biodiversity issues, which takes time, and resources, and may not have the organic buy in that exists for other issues.

When there are frequent transitions and new governments, there is also the risk that new political actors may not want to impose stringent environmental regulations or eliminate harmful

subsidies to maintain support. As noted by the OECD, societal conditions may influence the behaviour of elected officials who feel the need to provide positive economic news, which may result in status quo policies³¹⁴.

➤ *Invasive Alien Species.* As mentioned in Section 2.3.6, invasive alien species pose serious threats to biodiversity, agriculture, food security, and livelihoods. As noted in Antigua and Barbuda's NBSAP, in a sixteen-year period, about twenty invasive alien species have been identified in the country³¹⁵. These have had a variety of impacts including: destruction of agriculture and fisheries, the spread of highly flammable grasses, health risks such as meningitis, destruction of wildlife, inhabitation of the growth of native fauna and flora³¹⁶.

➤ *COVID-19 Pandemic.* The pandemic is creating economic hardships for SIDS that is likely to reduce financing available for biodiversity. Furthermore, while the COVID-19 pandemic crisis has impacted all countries, the virus has particularly amplified the unique vulnerabilities of SIDS'. As a 2020 OECD study demonstrates, SIDS with higher GNI per capita levels are not more resilient to confront the present crisis³¹⁷. The lessons from the 2008 financial and economic crisis point to a slower socioeconomic recovery in SIDS, compared to

the global level. Whatever the level of growth achieved, whatever the development gains obtained, SIDS' sustainable development pathways will always be relatively more volatile and fragile than average because of their unique exogenous factors. This may have long-term effects not just for the financing of biodiversity, but in the manner by which actors exploit natural resources; COVID-19 may act as an indirect driver for biodiversity loss in that many countries have weakened environmental regulations or introduced stimulus measures³¹⁸. Analyses suggest that the volume of potentially harmful spending committed as part of the economic recovery from the COVID-19 crisis outweighs the volume of spending beneficial to biodiversity³¹⁹.

The linkages between disease and biodiversity must be highlighted to obtain buy-in from society and decision-makers, and to view the environment as a determinant of health. And there is a close relationship: close to three-quarters of emerging infectious diseases in humans come from other animals³²⁰. Land-use change and wildlife exploitation create potentials of increased infectious disease risk by increasing interaction between people, domestic animals and pathogen-carrying wildlife, by disrupting the ecological processes that keep diseases in check³²¹.

313 Consultation with representative from Micronesia

314 OECD. 2006, The Political Economy of Environmentally Related Taxes, OECD Publishing, Paris. Available online at: dx.doi.org/10.1787/9789264025530-en

315 Antigua and Barbuda National Biodiversity Strategy and Action Plan (2014-2025). Available online at: cbd.int/doc/world/ag/ag-nbsap-01-en.pdf

316 Ibid

317 OECD. 2020. Mapping the Economic Consequences of Covid-19 on Small Island Developing States. Available online at: [oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD/DAC\(2020\)35/FINAL&docLanguage=En](https://oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD/DAC(2020)35/FINAL&docLanguage=En)

318 OECD. 2020. Biodiversity and the Economic Response to COVID-19: Ensuring a Green and Resilient Recovering. OECD Publishing, Paris. Available online at: read.oecd-ilibrary.org/view/?ref=136_136726-x5msnju6xg&title=Biodiversity-and-the-economic-response-to-COVID-19-Ensuring-a-green-and-resilient-recovery&_ga=2.138512689.322393091.1635828722-1679024229.1631719009

319 Ibid

320 FAO. 2020. Preventing the Next Global Pandemic: Sustainability and the One Health Approach. Available online at: fao.org/sustainability/success-stories/detail/en/c/1300674/

321 Ibid

3.3 Responsibility and Transparency

This section explores the constraints in engaging with CBD-related processes and procedures. It will examine constraints related to planning, monitoring, reporting with respect to CBD targets, and the challenges that exist in creating

opportunities for actors to engage in these processes.

3.3.1 Planning, Monitoring, Reporting and Review Process

(a) Establishing national targets as part of national strategies and

action plans;

(b) Reporting national targets to enable the collation of national targets; and

(c) Enabling the evaluation of national and collective actions against targets.

Many of the challenges in the planning, monitoring and review processes for target-setting and implementation of the CBD have been covered in aforementioned sections, particularly in relation to gaps in data collection, sharing of information, lack of monitoring and enforcement, and the challenges of reporting to various international processes. In addition, there are other specific SIDS-related constraints that have to be addressed to strengthen their means of implementation:

- Content of convention does not always fall into traditional competencies due to cross-sectoral nature — lack of skills at national

level to report, review, process data and evaluate.

- Monitoring of indicators is not mainstreamed within all sectors. This results in incomplete information of how biodiversity is being impacted at national level.
- Lack of cross-sectoral ownership
- Political challenges on who reports, who houses reporting capacities (for some Ministry of Planning, others Ministry of Environment). Difficulties in defining the responsibilities of departments other than environment, agriculture, forestry, hunting and fisheries. Sometimes responsibility for the design and development of the NBSAP resides in

lead agency but its implementation does not.

- Lack of quantitative and qualitative scientific information on the existing genetic resources, species, and habitats at the national level leads to incomplete reporting.
- Lack of standards and methodologies in evaluating changes; broadly-used perceptions are either too general to allow wide interpretations or too localized.
- Participatory biodiversity planning processes: often insufficient process documentation to allow a genuine reflection on effectiveness and/or on the limitations of these processes.

3.3.2 Opportunities for Other Actors to Contribute

Summary: Constraints Limiting Other Actors' Contributions

- Participatory planning processes require significant investments; especially challenging for countries whose territories are spread out

- Tendency of including the same groups/stakeholders for input
- Sectors are unclear on how targets will impact them
- Targets can cause tensions with interest groups
- Different means of communications to attract stakeholders are used; some more effective than others in creating the necessary interest and buy-in by diverse societal groups
- Growing digital divide and issues of access during the pandemic.

3.4 Outreach, Awareness and Uptake

Summary: Constraints in Outreach, Awareness and Uptake

- Lack of knowledge on value of biodiversity
- Lack of prioritization in domestic agenda
- Data and information from disparate projects is not centralized or collated in meaningful ways
- Academic institutions are not used to integrate knowledge generated from projects and initiatives
- Effectiveness of public awareness activities is not monitored; hard to know what was successful
- Too many different platforms, not utilized to their full potential
- Culture of consultants, short-term projects, does not support long-term institutional knowledge
- Traditional knowledge is not sufficiently leveraged
- Post-disaster post-crisis context does not allow space for thoughtful conservation activities discussion
- Relevance of biodiversity not effectively demonstrated to interest groups and private sector
- Lack of community ownership of broader national objectives—objectives have to be down-scaled
- Lack of incentives to participate in biodiversity protection activities
- Lack of investment in conservation science, research and development
- Poor communication
- Difficult to finance knowledge partnerships
- Lack of staff to be able to monitor and maintain international partnerships
- Overflow of information and a difficulty to extract what is needed and useful
- Digital divide affects access and engagement
- Caribbean and Pacific SIDS have strong regional partnerships and coalesce around shared concerns, the ➤AIS function more disparately and require opportunities/support for collaboration.

Outreach, awareness and uptake are a key means of implementing the biodiversity convention and meeting national biodiversity targets. This Section will explore the constraints in creating effective partnerships, reaching out to key communities and stakeholders, and maintaining public awareness activities of biodiversity in SIDS.

As reflected in Section 3.1.4.2, a whole-of-society approach is necessary in SIDS to achieve sustainability. Section 3.1.2, notes that a great deal of support is needed in terms of capacity building to support awareness and outreach, to measure its impact and promote cohesive messaging. In SIDS, given the population size, and geo-

graphic limitations, there is a real possibility of being able to streamline biodiversity protection awareness sectorally, through schooling, cultural activities, policies and projects being implemented, provided strategic supports exist.

SIDS have been leaders in championing and raising global aware-

ness on climate change issues, and there are many lessons to be drawn from that experience within the biodiversity realm. The SAMOA Pathway explicitly recognizes the challenges SIDS face in improving awareness, and “call for support for the efforts of small island developing States to raise awareness and communicate climate change risks, including through public dialogue with local communities, to increase human and environmental resilience to the longer-term impacts of climate change”³²² under article 44. While biodiversity fits within the ‘environmental resilience’ paradigm, it is necessary to similarly advocate for biodiversity goals if achievements are to be made.

3.4.1 Partnerships

Partnerships are a critical element for the achievement of the Rio Conventions, SAMOA Pathway and the 2030 Agenda. SIDS are facing multiple crises at the same time: climate, nature, health, and economic crises. The parallel crises expose their collective vulnerability. Structural drivers of vulnerability will be exacerbated without systemic interventions. The scale and complexity of the challenges faced by SIDS are far too vast for any country or organization to address on their own.

Strategic partnerships for integrated approaches and innovative solutions are more than ever necessary to support SIDS in achieving the Sustainable Development Goals. COVID-19 has amplified the need for an unprecedented collaboration for building back better, greener and bluer. Necessity being the mother of innovation, COVID-19 recovery represents a unique opportunity to catalyze transformative sustainable development through partnerships.

Effective partnering is about lev-

eraging and optimizing the combination of available resources. This is particularly challenging in SIDS, where a severely limited resource base and formidable pressures are the norm³²³. However, as noted by GLISPA, there are good examples of partnerships both within and among nations, which support biodiversity protection.

A key request from the outcome of the SAMOA Pathway was the establishment of the SIDS Partnership Framework, designed to monitor progress of existing, and stimulate the launch of new, genuine and durable partnerships for the sustainable development of SIDS.

The SIDS Partnerships Framework, formally established in December 2015 by General Assembly resolution 70/202, consist of 1) a member States driven Steering Committee on SIDS Partnerships (as of 2021, chaired by Antigua & Barbuda and Malta, appointed by PGA), 2) the organization of an annual action-oriented and results-focused Global Multi stakeholder SIDS Partnership Dialogue, 3) a standardized partnership reporting process of all stakeholders, 3) the organization of regional and, 4) national SIDS partnership dialogues with support from the United Nations system and the international community.

Complimentary to the SIDS Partnerships Framework, the SIDS Global Business Network provides the platform and resource hub to share best practices and lessons learned in support of private sector partnerships for SIDS. GBN convenes forums for the private sector, governments, the UN system and other stakeholders to exchange best practices and lessons learned in forging private sector partnerships. The network forges collaboration among SIDS regional private sector organisa-

tions and works towards strengthening inter-regional business alliances, encouraging international businesses to focus on SIDS as potential market opportunities and vice versa.

The Partnership Framework provides the structure to facilitate regional approaches, the rethinking of donor-recipient relationships, south-south and triangular cooperation, and to monitor the implementation of partnership pledges and commitments. It provides the SIDS specific structure for the evaluation of effective partnerships through the development of the S.M.A.R.T partnerships evaluation framework and provides a SIDS Partnerships reporting template, a database of which is maintained by the United Nations. The Secretariat of the Pacific Regional Environmental Programme (SPREP), has been identified by Pacific SIDS as playing a key role in managing and implementing regional projects.

The Caribbean Biodiversity Fund, is a good example of leveraging effective partnerships. The Caribbean Biodiversity Fund (CBF) is a regional endowment of multiple national level conservation Trust Funds to protect at least 20 % of the Caribbean’s marine and coastal environment³²⁴. The CBF, legally established in 2012, has already reached its initial endowment capitalization target of USD \$40 million through contributions from the Government of Germany, The Nature Conservancy, and the GEF, while also generating funds from countries participating in the Caribbean Challenge. It provides funding directly from the national level protected area trust funds to marine and coastal conservation projects; stimulates creation of country-led conservation finance mechanisms, such as protected area fees, to run through the national Trust Funds and generate

322 SIDS Accelerated Modalities of Action (S.A.M.O.A) Pathway. Available online at: sustainabledevelopment.un.org/samoapathway.html

323 “Small islands, genuine partnerships” Hicham Yezza, Dave Prescott, Darian Stibbe, The Partnering Initiative, Ola Goransson

324 GLISPA. Caribbean Biodiversity Fund. Available online at: glispa.org/glispa-bright-spots/128-caribbean-biodiversity-fund

match funding, and provides the financing mechanism to achieve the conservation and livelihoods goals.

The CBD Secretariat also facilitates a variety of partnerships to support capacity building on the implementation of the convention. Some of these include³²⁵ :

➤ Consortium of Scientific Partners on Biodiversity was established to leverage the expertise and experience of a range of national institutions in order to implement education and training activities to support developing countries to build scientific, technical and policy skills in the area of biodiversity. The members of the Consortium are primarily national-level technical and scientific agencies.

➤ PoWPA Friends Consortium was established to support implementation of the Convention's programme of work on protected areas (PoWPA). It is an informal collaboration of individuals, NGOs, governments and UN organisations.

➤ Bio-Bridge Initiative was established to enhance technical and scientific cooperation and technology transfer under the Convention, and in delivering this to encourage and facilitate a network of partner organisations to engage with the delivery of activities of the Bio-Bridge Initiative.

➤ Sustainable Ocean Initiative was established as a global platform to address capacity building needs to enhance cross-sectoral approaches to conservation and sustainable use of marine and coastal biodiversity.

➤ Sustainable Ocean Initiative 'partners' comprise a wide range of global, regional and national institutions, programmes and initiatives.

➤ Biodiversity E-Learning Platform: This platform houses materials on protected areas, ABS, biosafety, and economics, trade and biodiversity, developed in collaboration with a number of partner organisations.

The OECD and the World Economic Forum are also establishing the Blue Recovery Hub, specifically for SIDS, which can be used to share lessons with SIDS on innovative finance to support blue economy transitions³²⁶.

In Palau, which GLIPSA has identified as a 'bright spot', Palau's Protected Areas Network Act establishes the framework for a network of marine and terrestrial protected areas ensuring a long-term sustainable use of natural resources³²⁷. The Act involves local communities by enabling them to undertake a scientific and social assessment of their local environment and supports traditional systems of natural resource management. Partnerships with the local communities is seen as a key feature of why this is considered a 'bright spot'.

Some of the constraints related to establishing effective partnerships are the following:

➤ *Difficult to finance partnerships.* Donors prefer to finance interventions on the ground, so it is challenging to find support for mechanisms that involve knowledge sharing, sharing lessons learned and best practices

➤ *Countries are at different phases.* With huge geographic distances it is at times unclear for countries to know where others are at, and what lessons they can derive from each other's experiences

➤ *Lack of staff* to be able to monitor and maintain international partnerships

➤ *Overflow of information* and a difficulty to extract what is needed and useful

➤ *Costly* to have delegations visiting one another for demonstrations and pilots

➤ *Digital divide.* Countries have different levels of accessibility to technologies, databases, of mechanisms used to share information and data in partnership platforms.

➤ *Lack of downscaled information.* Regional hubs can provide a great deal of data, but might be challenging for countries seeking downscaled information.

➤ *Lack of reporting from partnerships.* The Partnerships for Small Island Developing States Paper highlights that SIDS benefit from the following³²⁸ due to partnerships, however these results are not necessarily attributed or highlighted as achievements of partnerships:

» Direct impacts on beneficiaries (e.g. increased resilience of communities, customers enrolled in financial services, improved access to safe water and sanitation for communities)

325 CBD Secretariat

326 WEF. 2021. Unlocking Financing for Growth in Saint Lucia. Available online at: weforum.org/agenda/2021/01/unlocking-financing-growth-saint-lucia-beyond/

327 GLISPA. Palau's Protected Area Network Act. Available online at: glispa.org/glispa-bright-spots/163-palau-s-protected-areas-network-act

328 UNSDG-UN DESA. 2019. Partnerships for Small Island Developing States. Available online at: sustainabledevelopment.un.org/content/documents/24591SIDS_Partnerships_May_2019_web.pdf

»Direct impacts on the environment (e.g. protection of marine and terrestrial environments)

»Knowledge, information, data and indicators (e.g. platforms for disaster management, nutrient management and water and sanitation; knowledge sharing between drought-affected SIDS)

»Improved coordination between agencies and organizations, leading to a more effective and comprehensive delivery of programs and outcomes

»Improved capacity (e.g. training programs on topics ranging from disaster resilience to wastewater management, cultural heritage and comprehensive sexual education; delivery of university programs and virtual education)

» Positive policy environment (e.g. training parliamentarians on gender issues and empowerment of women, strengthening youth engagement in policy, and developing an agreed-upon comprehensive sustainability vision).

Another issue that was raised over the course of this assessment, is while the Caribbean and the Pacific have strong regional partnerships and coalesce around shared concerns, the AIS function more disparately and require opportunities for collaboration.

3.4.2 Constraints on Outreach, Awareness and Uptake

The key constraints identified by SIDS with regard to Increasing understanding, awareness and appreciation of the values of biodiversity, including the associated knowledge, values and approaches used Indigenous Peoples and

Local Communities, raising awareness of all actors and promoting or developing platforms and partnerships are the following:

»Lack of knowledge on value of biodiversity

»Lack of prioritization in domestic agenda

»Data and information from disparate projects are not centralized or collated in meaningful ways

»Academic institutions are not used to integrate knowledge generated from projects and initiatives

»Effectiveness of public awareness activities is not monitored; hard to know what was successful

»Too many different platforms, not utilized to their full potential

»Culture of consultants, short-term projects, does not support long-term institutional knowledge

»Traditional knowledge is not sufficiently leveraged

»Immediate livelihood priorities take precedence

»Post-disaster post-crisis context does not allow space for thoughtful conservation activities

»Relevance of biodiversity not effectively demonstrated to interest groups and private sector

»Lack of community ownership of broader national objectives — objectives have to be down-scaled

»Lack of incentives to participate in biodiversity protection activities

»Lack of investment in conservation science, research and development

»Poor communication.

These aforementioned constraints are reflected in various national contexts. In Samoa for example, there have been a variety of efforts and investments to increase biodiversity awareness. However fragmented efforts make it difficult to assess changes in values. Moreo-

ver, without national assessments it is difficult to measure the state of knowledge and value of biodiversity to the Samoan people. Samoa's NBSAP notes, that while people may be aware of biodiversity, it is unclear whether they really know its value either culturally, economically and socially³²⁹.

A decorative graphic consisting of numerous thin, white, wavy lines that flow from the top left towards the bottom right, set against a solid blue background.

4. Conclusions

While all countries face challenges in meeting their biodiversity targets, SIDS' vulnerabilities are drastically limiting the resources and means by which they can protect their ecosystems and natural environment. Given the limited land mass, proneness to disaster, economic circumstances, and a high dependency on natural resources, this could be disastrous.

Despite their individual differences, SIDS share many of the same constraints, which if unaddressed, continue to widen the gap between where countries are in terms of sustainability and where they would like to be. There is the risk that countries will go through unfulfilled cycles of target setting and a lack of achievement against these. As custodians of globally relevant biodiversity, as the most exposed to risks, disasters, economic shocks, a SIDS-based approach to biodiversity protection is necessary, not just for global environmental benefits, but for protection against mass extinctions, degradation of key natural resources and loss of livelihoods. There is the opportunity to render the means of implementation more strategic, so that they target and respond to SIDS' gaps in ways that assist them in protecting their natural environment while sharing benefits.

There is the opportunity to leverage a SIDS-based approach, given the recognition of SIDS in various international processes such as, but not limited to, the UNFCCC processes, Sendai Framework for Disaster Risk and Reduction, the Addis Ababa Action Agenda, United Nations Conference on Trade and Development, SAMOA Pathway, UNESCO's vision for SIDS and OECD's work on the blue economy, and of course, the Sustainable Development Goals. In order for there to be cohesion with these parallel processes, and to leverage more specific supports, it is necessary to raise SIDS-related concerns within the global biodiversity conversation. These supports, or means of implementation, will be all the more

relevant in the COVID-19 and post-COVID-19 context, which have had devastating economic impacts. There is a case for **urgency** for responsive interventions in SIDS, and given biodiversity's integration in key economic sectors (tourism, agriculture, fisheries, extractive industries), there is a case to raise profile of SIDS concerns in the global arena.

SIDS face growing climate, economic and COVID-related threats, which exacerbate their ability to protect their natural environment; this creates a negative feedback loop — eroding biodiversity then leads to poorer ability to adapt to climate change, weakened economies, and instability in national food supply, while the aforementioned threats further degrade natural resources. To break this negative cycle, a strategic suite of actions has to be taken by the global community to (i) recognize SIDS' specific needs and concerns; (ii) strengthen the means of implementation so that SIDS have opportunities to meet their biodiversity objectives resulting in global environmental benefits; (iii) and recognize that nature-based solutions are integrally linked to climate, economy and food security. Given how integrated biodiversity is to all other sectors in SIDS (see Section 2), this will lead to multiplier benefits on the economic and social fronts.

SIDS have identified in the regional workshops that were held during the course of this assessment that a formal SIDS grouping would be beneficial for collaborations and cooperation. Strengthening the means of implementation for **SIDS as a formal cluster** of countries potentially achieves the following:

- It emphasizes the needs of SIDS so that means of implementation can be adapted to be more conducive, suitable and take into account the multiple vulnerabilities associated with biodiversity conservation in small island contexts.

- It creates opportunities for knowledge-sharing, pooling of resources, peer-exchanges, and partnerships that do not currently exist in the biodiversity conservation arena. By having some sort of shared formal status greater international cooperation among SIDS on biodiversity-related issues can be achieved.

- It gives political leverage to SIDS to voice their needs and interests and highlight their role in safeguarding globally significant biodiversity.

- It makes biodiversity conservation politically relevant within countries. With some type of formal recognition or status on the global scale, this may push the biodiversity agenda forward at the national level. Biodiversity can often be sidelined by tourism, extractives or other interests—global recognition may make biodiversity more politically salient domestically.

- It supports alignment and synergies with other global processes (see Section 2), which identify SIDS as formal grouping (UNFCCC, UNCTAD), with the potential of greater visibility of biodiversity as integrated into other sectors of society (trade, economy, health, disaster-risk management, climate adaptation etc...).

- It adds value to investments and projects; a SIDS-based approach to means of implementation offers the potential that multiple countries may benefit from investments and approaches that take into account SIDS particularities.

In tandem to increasing the profile of SIDS at the global scale and within the context of the CBD, it is also necessary to recognize the unique SIDS-based challenges which have prevented the achievement of biodiversity goals, and of making biodiversity salient as an issue within SIDS. Overall, the following challenges have been

identified under each heading of the means of implementation identified in the Draft Post-2020 Biodiversity Framework.

4.1 Recap of Key Constraints Identified Relative to Means of Implementation

Financial Mechanisms and Resource Mobilization

Concessional Financing/Project-Based Financing

SIDS are resourceful when it comes to mobilizing resources for their development, given how limited their economic base has historically been. Concessional financing remains an issue for SIDS.

- SIDS have difficulty meeting eligibility criteria for grants due to middle- or high-income country status
- SIDS face challenges in mobilizing the high levels of co-financing required by granting mechanisms
- SIDS Global Environment Facility (GEF) System of Transparent Allocation of Resources (STAR) allocations may not take into account the fact that SIDS have difficulty accessing other funds; while STAR appears proportional, LDCs may be able to attract other sources of funding which SIDS cannot
- GEF Biodiversity Focal Area approach may not fund activities that are pertinent to SIDS biodiversity goals e.g. managing invasive alien species impact of non-native or agricultural related flora fauna; managing plastic waste pollution
- Application/proposal for grants is challenging for countries with low human resources and data capacities; Lack of capacities exist in developing funding proposals
- Growing complexities with funds' approval systems which are not well understood
- Project management cost limitations in GEF projects do not take into account the high costs

for consultants, transportation, rent in SIDS

- Low levels of private sector investment
- There is limited staff to apply for concessional financing and manage project funds
- Project-based approaches are not creating the structural changes and capacities needed for biodiversity protection.
- Regional projects may strengthen regional institutions but do not necessarily serve local-level needs
- Growing restrictions in donor funding challenges SIDS to use funds where most needed relative to biodiversity
- Biodiversity research/study expeditions to SIDS do not sufficiently share co-benefits with countries themselves
- Lack of coordination within government, and among multi-lateral partners does not allow SIDS to optimize on concessional funding.

Resource Mobilization

Impacts of the COVID-19 pandemic has strained already small and indebted economies. The following factors impact SIDS' abilities to mobilize resources for biodiversity protection. These include:

- High debt-to-GDP ratio
- Shrinking GDP
- Disaster-prone; SIDS do not recover from one disaster when another strikes. Mobilizing post-crisis financing is challenging especially with multiple disasters
- Lack of biodiversity data available that would justify financing biodiversity protection activities
- Incoherence with other fiscal policy instruments (e.g. incentives in agriculture, tourism development)
- Remoteness of SIDS
- Tax system that does not collect for environmental purposes
- Inter-sectoral competition for funds; more lucrative sectors such as tourism benefitting at the cost of biodiversity
- Small/limited private sector

➤ Lack of staff capacity to mobilize resources.

Innovations, Successes and Other Mechanisms for Mobilizing Resources in SIDS

Despite the constraints and gaps in leveraging funds for biodiversity protection to meet national targets, many SIDS have piloted and undertaken innovative initiatives to access resources. These include a variety of financial instruments and mechanisms:

- Debt-for-nature swaps
- Blue bonds
- Blue economy investments
- Partnerships to leverage private capital
- Private financing investments to be repaid by a percentage of future tax revenues
- Biodiversity protection as part of corporate social responsibility (CSR) initiatives
- Microcredit partners in sectors such as fisheries or eco-tourism
- Green fee schemes and biodiversity trust funds
- Non-resource-based incentives: e.g. biosphere certification.

Capacity-Building and Development

Capacity-building is a gap that is raised in virtually every area related to biodiversity conservation.

Capacity Gaps in Enforcement

These examples highlight that regardless of how well-developed governance regime may be, without capacity for enforcement, countries will encounter constraints to protect their biodiversity. Enforcement capacity gaps can be the result of:

- Resource challenges
- Shortage of staff
- Lack of awareness, understanding and value biodiversity-relevant rules and regulations
- Political/social considerations' and interests conflict with biodiversity interests
- Lack of training/skills

- Lack of equipment
- Lack of knowledge/data on what needs to be monitored, how and why.

Capacity Gaps in Environmental Governance

They are several constraints which limit effective environmental Governance in SIDS. These include:

- Lack of science-policy interface
- Lack of political awareness/interest in biodiversity issues compared to other key sectors (tourism, fisheries, mining)
- Out-migration of skilled staff
- A lack of paid staff to enforce/monitor
- Lack of governance infrastructure, equipment, patrolling capabilities
- Lack of community awareness and education on existing regulations
- Too many global regimes to report on.

Capacity Gaps in Conducting Public Awareness Activities

Numerous public awareness activities have been carried out within SIDS, but without assessment of what these have achieved, and what is needed to reinforce them. Some of the key capacity constraints that limit the effectiveness of public awareness activities include:

- Lack of centralized vision for activities
- Lack of measurement of results of awareness activities
- Disparate activities carried out by different actors, without coordination; Lack of central data collection and analysis capacities of what activities are carried out
- Lack of data to back up value of biodiversity to make it a salient issue for public
- Lack of capacity of stakeholder organizations (financial, technical, administrative) to engage
- Digital divide, disparities in accessing information.

Capacity Gaps in Data Gathering

The lack of biodiversity data underpins many challenges facing SIDS such as mobilizing resources, building public awareness, monitoring for results, reporting on achievements. The following capacity gaps generally exist in SIDS with regard to data collection:

- Lack of valuation of biodiversity and ecosystem services/No national environmental accounting
- Lack of information on biodiversity and ecosystem services
- Lack of data on technology, tools, practices to build resilience
- Lack of data on how to monitor for changes in biodiversity values
- Difficulty in aligning data, particularly as technology changes
- Lack of data on how biodiversity can benefit on socioeconomic conditions
- Poor usability/accessibility of existing data banks; data may not be downscaled enough to be usable.

Capacity Gaps in Scientific Cooperation, Technology Transfer and Knowledge Management

- Low technical and institutional capacity to integrate, apply technology and knowledge, and identify what is needed for improved biodiversity conservation
- Lack of expenditure on research and development
- Weak science-policy interface
- Need for more specialized data banks
- Lack of knowledge on what technologies are most needed to combat specific biodiversity problems
- Data collection needs to be seen as an ongoing process not as a time-bound output
- During COVID-19, larger number of participants should be allowed to enter training sessions and platforms to capacitate a greater number of staff
- Sometimes data portals and information platforms require

too high a level of expertise to engage

- General lack of expenditure on research and development in SIDS and low capacity to conduct research in Natural Sciences
- Tertiary education institutions should play a bigger role in supplementing skills gaps and retaining knowledge within the SIDS
- The lack of investments in education, and skills development, also contribute to a culture of employing international consultants to fulfill biodiversity related tasks. This can potentially hinder retention of skills, institutionalizing knowledge, and limit opportunities for local researchers and technicians to engage
- Knowledge management hubs and data portals may be duplicative and may create new silos of knowledge
- SIDS need data sets to be responsive to specific biodiversity needs e.g. IAS, Nagoya Protocol.

Enabling Conditions

Whole-of-Government Approach

Given the highly integrated nature of biodiversity, especially in a SIDS context, a whole-of-government approach is needed to address conservation needs. Despite the value of nature to tourism, agriculture, fisheries, planning or health, SIDS face constraints in employing a whole-of-government approach to address their biodiversity objectives. The whole-of-government approach is also aligned with SIDS' ridge-to-reef (R2R) approaches, which by nature require whole-of-government and society approaches. The main challenges of engaging whole-of-government for biodiversity include:

- Policy instruments that undercut biodiversity objectives
- Lack of information, data and numbers that could be mainstreamed into other sectors
- Piecemeal and uncoordinated approach of implementing bio-

diversity conservation activities

- Political agenda and vested interests may not be conducive to conservation activities.

Whole-of-Society Approaches

In the discussions that resulted in the Samoa Pathway it was suggested that SIDS could model-whole-of-society approaches to sustainable development, while acting as stewards of oceans on behalf of all humanity. To do so, SIDS need to engage civil society, private sector, women and indigenous and local communities in biodiversity protection. The following challenges have been identified in doing so:

Civil Society

- Many organizations in the civil society are of a small size, have a lack of resources and staff for carrying out complex activities; smaller, localized civil society actors are unable to access donor or national level-funding
- There may be political differences and incoherence among CSOs and government priorities
- Project-dependent engagement: CSOs get invited to participate during the project life, and once the project is over, the engagement platforms cease; CSOs asked to participate in workshops without meaningful ownership of project activities. Most projects are managed by government ministries
- CSO workload and costs increase when engaging in national biodiversity projects
- Private sector interests may have more clout than civil society interests e.g. tourism operators.

Private Sector

- Small private sector
- Private sector dominated by international companies (tourism, extractives, agriculture), may not have shared vision/commitment to long-term conservation
- Lack of knowledge of national laws and regulations
- Ability to influence the national

agenda with promises of growth, tourism, and economic development

- Pushback on regulations which add costs or delays.

Women

- Lack of decision-making roles in community processes
- Burdens of household family responsibility infringing on time and capacity to engage on biodiversity conservation
- Lack of mediums through which to mobilize
- Lack of meaningful engagement in existing interventions; “head count” approach to participation
- Women’s knowledge is not collated in meaningful ways
- Biodiversity conservation is not integrated into livelihood activities such as working in the tourism or fisheries sector
- COVID-19 pandemic has impacted women care-givers and hospitality services in disproportionate ways.

Indigenous Communities

- Traditional systems are changing; often regarded as irrelevant by broader society which ignores indigenous contribution to conservation
- Difficult to document, extricate what is and is not traditional knowledge as it is pervasive
- Lack of integration of traditional knowledge into science-policy development processes
- Lack of collection/dissemination of data on use of traditional knowledge
- Lack of knowledge on the nexus/potentials between traditional knowledge and modern technology
- Without biodiversity valuations, traditional knowledge in protecting said biodiversity is often undervalued.

Integration with Relevant Multilat-

eral Environmental Agreements and Other Relevant Processes

SIDS play an important role in various international processes. However, by dint of their characteristics, there are challenges in engaging some of these processes, which could otherwise support sustainable development. These include the following:

- Too many international processes, onerous requirements for various inputs and participation that small country staff have trouble keeping up with
- Planning and reporting takes away from implementing
- Transportation and travel from SIDS to international meetings are challenging both in terms of time and cost. SIDS can often small delegations.
- While there has been a push for a One UN approach, this is not always manifested. Duplicating, overlapping or uncoordinated interventions within SIDS
- Biodiversity is not mainstreamed within other international fora. While the SDG goals have created more space for integrating various environmental issues, biodiversity is still not as salient as climate change.
- In international fora, representatives from various SIDS usually come from the foreign affairs divisions. This may limit the kind of engagement on biodiversity issues that is needed.

Addressing full range of indirect drivers of biodiversity loss

Many of the indirect drivers of biodiversity loss are influenced by societal values and behaviours, which include production and consumption patterns, increasing populations, trade and technological innovations and global governance³³⁰. The Ridge-to-Reef approach offers a useful lens by which to assess downstream and upstream biodiversity impacts. The main challenges that remain, include:

- Some environmental activities,

green solutions may inadvertently degrade biodiversity (e.g. sea bed mining for energy sources to fight climate change, planting of non-native vegetation which affects soil nutrients)

- Invasive Alien Species
- Political Instability/Changing Priorities
- COVID-19 pandemic
- Fiscal instruments, incentives subsidies for agricultural production fisheries.

Responsibility and Transparency

Planning, Monitoring, Reporting and Review Process

- (a) Establishing national targets as part of national strategies and action plans;
- (b) Reporting national targets to enable the collation of national targets; and
- (c) Enabling the evaluation of national and collective actions against targets.

Many of the challenges in the planning, monitoring and review processes for target-setting and implementation of the CBD have been covered in aforementioned points, particularly in relation to gaps in data collection, sharing of information, lack of monitoring and enforcement, and the challenges of reporting to various international processes. In addition, there are other specific SIDS-related constraints that have to be addressed to strengthen their means of implementation:

- Lack of skills at national level to report, review, process data and evaluate
- Monitoring of indicators is not mainstreamed within all sectors. This results in incomplete information of how biodiversity is being impacted at national level.
- Lack of cross-sectoral ownership
- Political challenges on who reports, houses responsibilities and conducts CBD activities

- Lack of quantitative and qualitative scientific information on the existing genetic resources, species, and habitats at the national level leads to incomplete reporting
- Lack of standards and methodologies in evaluating changes
- Participatory biodiversity planning processes often insufficient process documentation to allow a genuine reflection on effectiveness and/or on the limitations of these processes
- CBD enabling activities are funded sporadically, whereas UNFCCC provides ongoing funding which allows allocation of staff to climate change agenda.

Opportunities for Other Actors to Contribute

The processes in SIDS for actors to contribute to target-setting differs, and some are more inclusive than others. Overall, the constraints identified include:

- Participatory planning processes require significant investments; especially challenging for countries whose territories are spread out
- Tendency of including the same groups/stakeholders for input
- Sectors are unclear on how targets will impact them
- Targets can cause tensions with interest groups
- Different means of communications to attract stakeholders are used; some more effective than others in creating the necessary interest and buy-in by diverse societal groups.
- Growing digital divide and issues of access during the pandemic.

Outreach, Awareness and Uptake

Outreach, awareness and uptake are a key means of implementing the biodiversity convention and meeting national biodiversity tar-

gets.

- Lack of knowledge on value of biodiversity
- Lack of prioritization in domestic agenda
- Data and information from disparate projects are not centralized or collated in meaningful ways
- Academic institutions are not used to integrate knowledge generated from projects and initiatives
- Effectiveness of public awareness activities is not monitored; hard to know what was successful
- Too many different platforms, not utilized to their full potential
- Culture of consultants, short-term projects, does not support long-term institutional knowledge
- Traditional knowledge is not sufficiently leveraged
- Post-disaster post-crisis context does not allow space for thoughtful conservation activities discussion
- Relevance of biodiversity not effectively demonstrated to interest groups and private sector
- Lack of community ownership of broader national objectives—objectives have to be down-scaled
- Lack of incentives to participate in biodiversity protection activities
- Lack of investment in conservation science, research and development
- Poor communication
- Difficult to finance knowledge partnerships
- Lack of staff to be able to monitor and maintain international partnerships
- Overflow of information and a difficulty to extract what is needed and useful
- Digital divide affects access and engagement.

4.2 Lessons Drawn from Gap Assessment

Lesson 1 - SIDS face unique vulnerabilities and opportunities that must be capitalized upon if progress is to be made on biodiversity protection. SIDS need to be addressed as a distinct category particularly by financial mechanisms, so that challenges that are masked by medium-to-high income status, are addressed through strategic initiatives. The high cost of delivering development action and transportation; the limited human resources and skills, the onerous reporting needs on MEAs and projects need to be aligned, and considered in financial allocations SIDS receive.

Lesson 2 - While concessional funding is greatly needed, the traditional project-based funding model does not appear to be making the systemic changes necessary to enhance skills and capacities, retain knowledge, and generate data. Longer-term accompaniment must be considered, and skills retention strategies should be folded into initiatives to enhance institutional knowledge and prevent brain drain. Output-based projects may mask more foundational work that is required to foster sustainable capacities.

Lesson 3 - SIDS need freedom to manage their biodiversity financing. They are dealing with disasters, with economic limitations, and low human resources. What may not appear to be biodiversity-related in one country, is in fact very much so in SIDS due to enclosed land mass, ridge-to-reef reality, and highly interdependent economies. Flexibility is required in concessional financing arrangements to account for this.

Lesson 4 - Data on biodiversity is a gap that underpins virtually every constraint. Investments in biodiversity valuations are needed to inform policy decisions, justify

requests for resource mobilization, enhance public awareness and knowledge, support monitoring and enforcement. Intersectoral biodiversity mainstreaming can only happen if sectors have a better idea of what ecosystems are contributing and risking. However, data collection and management is an ongoing exercise. Over time, sectors require the ability to inform and manage such data. Data collection and management cannot be an output-based item and needs ongoing growth and accompaniment. Data for SIDS and by SIDS needs to be prioritized.

Lesson 5 - In the wake of the economic crises SIDS are undergoing, SIDS must be supported to build back better, with biodiversity principles in mind. With the focus on green technologies and green solutions with a potential of leveraging natural resources, and an urgency to re-ignite tourism, it is necessary to ensure these activities are not undermining ecosystems. ODA and debt-refinancing strategies would benefit from including biodiversity considerations to strengthen the sustainability of SIDS' natural environment and the benefits this affords them.

Lesson 6 - Given the small size of SIDS, there are opportunities for innovative and holistic development. Novel partnerships, strategies and innovative practices are underway in many SIDS, which need to be learned from. Emphasis on SIDS as 'large ocean states' recognizes the large influence SIDS have and the key role they play in managing marine/ocean resources. However, the focus on the blue economy should not undermine terrestrial ecosystems.

Lesson 7 - SIDS exercise leadership and influence in the UNFCCC arena. Lessons can be drawn from this engagement, and replicated within the CBD context. In particular, SIDS require support beyond enabling activities, to commit staff from a limited pool

of human resources. A formal grouping in the UNFCCC has also given SIDS a greater voice to reflect SIDS-specific needs. SIDS have identified in the regional workshops that were held during the course of this assessment that a formal SIDS grouping would be beneficial for collaborations and cooperation. Strengthening the means of implementation for SIDS as a formal cluster of countries would allow the pooling of resources, sharing of knowledge and expertise, opportunities for synergies and likely result in higher aggregate results against biodiversity targets.

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