**Convention on Biological Diversity**

SUBSIDIARY BODY ON IMPLEMENTATION
Third meeting
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Item 7 of the provisional agenda[*]

# REPORT OF THE STUDY TO INFORM THE PREPARATION OF A LONG-TERM STRATEGIC FRAMEWORK FOR CAPACITY-BUILDING BEYOND 2020

*Note by the Executive Secretary*

1. The Executive Secretary is pleased to circulate herewith, for the information of participants in the third meeting of the Subsidiary Body on Implementation, a report of the study undertaken to provide an information base for the preparation of the long-term strategic framework for capacity-building beyond 2020.

2. The study was commissioned in May 2019 by the Executive Secretary pursuant to paragraph 1 (a) of decision 14/24 A of the Conference of the Parties. The United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) was hired to undertake the study.

3. A preliminary report of the study was presented at the thematic consultation on capacity-building and technical and scientific cooperation for the post-2020 global biodiversity framework, held in Rome on 1 and 2 March 2020, and was subsequently revised taking into account comments received during the thematic consultation.

4. The final report is being circulated in the form and language in which it was received from UNEP-WCMC.

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[*] CBD/SBI/3/1.

# Biodiversity-related capacity-building

## Informing the preparation of a long-term strategic framework for capacity-building beyond 2020

UN environment programme WCMC

## Acknowledgements

## Suggested citation

# Executive summary

At its thirteenth meeting, the Conference of the Parties requested that the Executive Secretary initiate a process for preparing a long-term strategic framework for capacity-building beyond 2020. In addition, it requested that the Executive Secretary commission a study to provide the necessary knowledge base for development of this framework. The resulting study analyses information related to capacity-building in support of the Convention and its Protocols, with the aim of helping to identify possible elements of the draft long-term strategic framework for capacity-building beyond 2020. The study is structured as follows:

- **Section 1 -** Introduction to the study and the methods used
- **Section 2** - Key definitions used in the study, together with a summary of the capacity-building provisions and latest developments under the Convention and its Protocols
- **Section 3** - The landscape of biodiversity-related capacity-building and technical and scientific cooperation, focusing on what has been done, advancements made and main support providers
- **Section 4** - Summary of key capacity-building needs and gaps identified by Parties and stakeholders
- **Section 5** - The main approaches and modalities that have been used to achieve capacity-building goals and to deliver capacity-building for biodiversity, identifying key strengths and limitations
- **Section 6** - Common practices relating to monitoring and evaluation for capacity-building interventions, and an overview of the use of indicators and baselines in this field
- **Section 7 -** Overview of the wide breath of limitations and challenges for capacity-building
- **Section 8** - Recommendations on the general direction for the development and subsequent implementation of the long-term framework for capacity-building beyond 2020.

The needs and gaps in capacity building for the implementation of the Convention and its Protocols are significant. The study identified numerous functional and technical capacity needs, gaps and cross-cutting capacity needs. For example:

- Some of the most frequently cited **capacity needs and gaps of a general nature** include: resource mobilisation and fundraising skills, cooperation and collaboration with other actors and sectors, institutional capacity, networking and communication skills, data collection, management and use, knowledge and information sharing, technical skills related to assessment of biodiversity and ecosystem services, including understanding values, integration of the value of biodiversity and ecosystem services in sectors and legislation and enforcement of environmental policies and legislation and spatial analysis and remote sensing.
- The most frequently cited **technical capacity needs covering various key topics on the Convention** include sustainable use of biodiversity; marine and coastal biodiversity; ecosystem restoration; taxonomy; biodiversity indicators; and many others. However, specific capacity requirements under these themes differ from country to country. Some of the most important functional and technical capacity needs of Parties related specifically with the NBSAPs, include raising awareness about biodiversity; carrying out assessments of biodiversity and ecosystems status and trends; understanding the theory and practice of mainstreaming biodiversity; practical mainstreaming of gender in planning, decision-making and management of and access to natural resources and developing and understanding biodiversity indicators.
- With respect to the Protocols, the top priority **capacity needs relating to biosafety and the Cartagena Protocol** include the development of national biosafety legislation; risk assessment; detection and identification of living modified organisms; public awareness, education and participation; biosafety mainstreaming and sharing of information; strengthening national biosafety frameworks; and liability and redress.
- Priority **capacity needs relating to access and benefit-sharing and the Nagoya Protocol** include the ability to negotiate mutually agreed terms, the capacity of indigenous peoples

and local communities and relevant stakeholders to implement the Protocol, and the capacity to develop endogenous research capabilities. Priority functional capacities needed for the implementation of the Nagoya Protocol include communication and awareness, resource mobilisation, stakeholder engagement, and networking and partnership development. Other emerging areas for capacity-building include digital sequence information on genetic resources, measuring the benefits that arise through the implementation of the Nagoya Protocol, and strengthening Parties' national environmental information systems.

# Key findings and recommendations of the study

The following key findings and recommendations were identified during the development of the study as a basis for informing the development and subsequent implementation of the long-term strategic framework for capacity-building beyond 2020. These are divided into overarching recommendations and those related to specific elements of the study.

## Overarching recommendations

Six overarching recommendations emerged from the study, as detailed below.

- Encompass not only the implementation of capacity-building efforts for biodiversity through interventions facilitated by the CBD Secretariat, but also biodiversity-related capacity-building promoted and delivered by its partners, including by other Conventions.
- Include a clear and well-defined overarching goal or a limited number of overarching objectives, and be outcome-oriented so that it is clear what it aims to achieve. This will facilitate not only resourcing and delivery, but also monitoring and evaluation.
- Propose a series of key overarching principles to guide the design and implementation of capacity-building interventions at global and national levels, such as the following:
  - o support implementation of the three objectives of the Convention, the Protocols, and the post-2020 global biodiversity framework;
  - o seek to promote capacity-building that is demand-driven, in order to ensure strong ownership and commitment to capacity-building interventions and outcomes;
  - o seek to promote tailor-made design of capacity-building interventions, recognising that capacity-building does not allow for a 'one size fits all' approach; and
  - o seek to promote cooperation, collaboration and coherence of capacity-building efforts for biodiversity.
- Include a clear definition of the term 'capacity-building', with the aim of clarifying its scope and facilitating the definition of its objectives (while noting that it might be preferable to use the term 'capacity development' to better capture the approaches used).
- Include the basis to develop a robust monitoring and evaluation framework to assess progress towards achieving its outcomes, and/or specify the process for its development, with indicators identified as soon as practicable.
- Provide an overarching strategic document to guide the implementation of biodiversity-related capacity-building, with more detailed action plans developed at a later stage (for example for prioritised thematic areas).

In addition, the following general recommendations might also be considered:

- using challenges identified in delivering capacity-building as a basis for developing further guiding principles for capacity-building interventions, that can be encouraged and applied through a future strategic framework,
- increasing focus on capacity-building at the institutional and systemic levels rather than at the individual level, in order to achieve more sustained impacts,
- developing a theory of change to facilitate identification of outcomes and clear objectives.
- proposing a mid-term review of the outcomes and mechanisms included in the strategic framework to provide the opportunity to make adjustments as needed,
- recognising that current baselines and indicators may be inadequate for assessing the long-term impact of capacity-building, it may be valuable to work with Parties and others to find better ways to assess impact over time.

**Recommendations relating to working within the capacity-building landscape**

A broad range of organisations, initiatives and networks need to be involved in biodiversity-related capacity-building at all levels. It is important to focus not on the organisations themselves, but on the mechanisms that the Convention might use in order to best draw on their expertise. The below suggestions are made.

- **Consider where and how to place effort in using the existing capacity-building landscape**, and in particular identify which activities:
    - o the Secretariat should carry out itself, whether from the regular budget or through voluntary funding,
    - o the Conference of the Parties or Secretariat would explicitly task or invite others to do on its behalf (or recognise activities that are already being planned or undertaken),
    - o the Conference of the Parties or Secretariat would otherwise promote, facilitate and/or catalyse, whether directly or indirectly, for example by identifying priorities.
- **Enhance coordination and collaboration with other multilateral environmental agreements and intergovernmental processes relating to biodiversity and ecosystem services**, for example by:
    - o leveraging existing arrangements, such as the Biodiversity Liaison Group, to address and coordinate issues related to capacity-building with a view to exchanging experiences and coordinating actions,
    - o establishing shared priorities at the programmatic level that would build a stronger case when fundraising for development and implementation of capacity-building interventions and would create higher impact.
- **Consider how to improve access to information relating to the extent of the investment for capacity-building** as opposed to other project purposes. This would contribute to a better understanding of the capacity-building landscape.
- **Consider how best to extend and increase access to online resources** that the Secretariat is making available, working closely with partner organisations with experience in different issues, and developing working relationships with other portals and virtual colleges/libraries.
- **Consider the establishment of a working group on biodiversity-related capacity-building** (global coordination mechanism), led by the Secretariat, to increase the awareness of capacity-building needs and opportunities, and to facilitate, monitor and evaluate capacity-building activities for biodiversity.
- **Consider the establishment of an ongoing relationship amongst donors on biodiversity-related capacity-building**, linking back to regional, national and community partnerships.
- Encourage the establishment of some form of **process at the national level to coordinate capacity-building efforts** and thus increase coordination and focus on sustainable outcomes.

**Recommendations relating to capacity-building approaches**[1]

The Secretariat should consider building upon existing partnerships to facilitate and promote the development and implementation of a strategic approach to capacity-building, which addresses the following:

- develop a well-connected group of technical assistance providers to address the Parties' technical and scientific needs on a wide range of issues,
- promote a regional approach towards delivery of capacity-building, drawing on existing partnerships and creating new ones as appropriate,

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[1] Capacity-building approaches refer to the way in which capacity-building interventions are planned in order to achieve a desired outcome. Each of the different approaches entails a series of assumptions and provides the direction for the capacity-building intervention.

- build on existing regional support networks or hubs where possible to avoid duplication of efforts and identify regional organisations to coordinate relevant capacity-building initiatives,
- actively promote peer-to-peer learning through a range of approaches and modalities, including facilitating South-South and triangular cooperation,
- keep under consideration that different target audiences may benefit from different combinations of the capacity-building interventions,
- consider the use of combined approaches and a variety of modalities in order to increase the effectiveness of capacity-building,
- promote the train-the-trainers approach as a means to a more strategic development of capacities that would enable reaching an increasingly more targeted audience,
- foster bottom-up approaches for capacity-building, such as through participatory assessments, to empower communities and ensure greater motivation for engagement,
- build on existing communities of practice where this is possible in order to benefit from existing communities and resources, and to avoid the risk of duplicating effort.

In addition, the following recommendations relate to specific capacity-building approaches:
- identify regional organisations to coordinate relevant capacity-building initiatives,
- build on the wide range of partnerships addressing specific themes or cross-cutting issues related to supporting the implementation of the Convention and its Protocols,
- enhance technical and scientific cooperation, including through South-South and triangular cooperation, as a means to foster peer-to-peer learning,
- expand the membership of the Consortium of Scientific Partners as a means to promote South-South cooperation and support, in particular when promoting technical and scientific cooperation within regions,
- improve the capacity of developing countries to absorb and adapt technology and skills to meet their specific needs,
- seek to develop capacity-building interventions that actively foster peer-to-peer learning so as to build relationships amongst practitioners and further foster peer-to-peer learning,
- when planning capacity-building interventions, consider how different capacity-building modalities can be combined in order to increase effectiveness,
- when using blended learning, take into consideration the target audience of the capacity-building interventions to make sure the right combinations of modalities are chosen,
- explore ways to assist and stimulate community-based initiatives.

## Recommendations relating to capacity-building modalities[2]

A myriad of capacity-building modalities exists. Evidence suggests that the key to success is in applying the right modalities and approaches in the context of the goals to be achieved. Based on the analysis, consideration of the following is recommended:
- recognise that selecting appropriate modalities requires an understanding of the interdependencies between individual, institutional and systemic levels in the specific context where the capacity-building interventions are being implemented,
- recognise and acknowledge the value of cross-linkages between different modalities, with a view to multiplying and reinforcing the effects of the planned interventions,
- focus efforts on working with national and regional experts rather than international consultants with limited understanding of the context where capacities are to be built,
- ensure concrete follow-up actions are agreed prior to the finalisation of the specific interventions,

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[2] Capacity-building modalities are the delivery methods used to achieve certain capacity-building goals. Selection of modalities are informed by the specific approach in which they are embedded, as well as by issues such as the type of need(s) being addressed and target audience.

- use of workshops in combination with other modalities such as e-learning, designing the blend in the most cost-efficient way to achieve the desired objectives,
- identify ways to provide better access to online tools, so that they are more widely available and better integrated,
- invest effort in improving the Biodiversity e-Learning Platform as a means of enabling access to different tools and knowledge materials to partners and countries working on capacity-building for biodiversity,
- explore opportunities to work with communities of practice and centres of expertise, including at national and regional levels, to increase focused training opportunities that can be built upon with peer-to-peer learning,
- consider tools, experiences and lessons learned in other multilateral environmental agreements or organisations such as CITES or IPBES (e.g. CITES Virtual College or IPBES fellowship programme),
- make sure individuals and institutions in target countries/institutions demonstrate commitment for long-term partnerships, or consider alternative options for targeting the interventions when this is not the case,
- consider opportunities for the Secretariat to engage with educational institutions such as UNESCO and UNU and their networks in strengthening the opportunities for education for sustainable development,
- put in place approaches for assessing the impact of different capacity-building approaches and modalities, as a basis for adjusting future implementation.

In addition, the following recommendations are proposed for specific capacity-building modalities:
- ensure that concrete follow-up actions and work plans are agreed at the end of workshops and create networks for participants to continue sharing experiences,
- encourage participants to pass on what they have learnt, and build this into strategies, programmes and plans to benefit organisations where they perform their duties and beyond,
- make all training and support materials widely available online after a workshop takes place,
- incorporate more practical 'hands on' sessions in workshops and training sessions,
- when planning workshops, consider diverse approaches such as Open Space Technology or world café to create a strong sense of ownership of the outputs and outcomes,
- identify ways to better link the multiple portals and other information resources that exist at international and national levels, so that they are widely available and better integrated,
- increase access to online tools through other global and regional portals, including through targeted collaboration through the Clearing-house Mechanism,
- encourage use of online forums as part of the activities of communities of practice, and in association with other online tools such as e-learning, web portals, etc.,
- encourage effective networking in the margins of the Convention meetings, for example by holding side events that are more targeted to sharing needs and solutions around specific topics of interest to developing countries,
- explore which vehicles could be useful to enhance peer-to-peer exchange once a network is established, bearing in mind different mechanisms may apply to different regions,
- further promote study visits, linked to regional and national centres of expertise to enhance peer-to-peer learning,
- consider updating existing guidance documents or resource materials developed under the Convention and its Protocols or by partners, or provide new ones as needed,
- increase access to existing resources, including in different languages, for example by enhancing the collaboration with thematic partners and communities of practice,
- focus on technical assistance to strengthen the capacities of institutions, so as to make them less reliant on specific individuals,
- consider planning celebrations and events for international days with associated capacity-building opportunities in mind,

- explore opportunities to work with communities of practice, thematic partners and centres of expertise at national or regional levels.

## Recommendations relating to monitoring and evaluation

Monitoring and evaluation of capacity-building is not only relevant to measuring success after the fact, but also provides important input for improvement of capacity-building strategy and its components and activities, as it is being implemented. Results should be measured regularly and systematically to provide a clear picture of the progress towards achieving (especially long-term) goals, and as a basis for identifying potential failures of the approach implemented. Addressing this might include the below.

- Build monitoring and evaluation into capacity-building interventions from the design stage, recognising the need to assess the effectiveness of capacity-building interventions and better understand their impact.
- Consider the development of a theory of change in which the capacity-building interventions and programmes are embedded, recognising that the use of logical frameworks can help in this regard.
- Try to ensure that development and use of indicators is informed by the following:
  o identify the purpose of the capacity-building intervention, clearly responding to the question "whose capacities", and "capacities to do what?",
  o develop clear understanding of the assumptions about the nature and source of the problem to be solved, the means to be employed, the timeliness of the intervention, the available support, and the nature of the desired outcomes to be achieved,
  o monitoring needs to happen at the national level, but also at the regional and global levels, using a quantitative approach combined with a qualitative evaluation,
  o monitoring and evaluation should allow for accurate information on the actual impact of capacity building at individual and institutional levels,
  o identify indicators through a participatory process, involving national/local actors to promote their learning and enhance the ownership of the processes being implemented,
  o combine quantitative and qualitative indicators and, to the extent possible, indicators should be disaggregated to acknowledge and address needs of specific groups (e.g. women, indigenous peoples and local communities, etc.).
  o identify indicators that can be sustainably delivered, and which clearly demonstrate progress (or lack of it) towards desired outputs and/or outcomes.
- Use baselines to help inform the development of objectives and indicators of capacity-building interventions, established through an assessment of existing capacities and gaps.
- Include a sustainability plan in capacity-building interventions, as capacity-building is a long-term process and consideration of the sustainability/continuity of the planned interventions is fundamental to achieving long-lasting outcomes.  Exit strategies should be developed collaboratively between the donor and the recipient, including post-project obligations.
- Consider ongoing review over time to try to assess whether a capacity-building intervention has longer term impact in addition to the immediate results and impacts which are more easily recognised.

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# Abbreviations and Acronyms

| | |
|---|---|
| ABS | Access and benefit-sharing |
| CBD | Convention on Biological Diversity |
| CEE | Central and Eastern Europe |
| CEPA | Communication, education and public awareness |
| CHM | Clearing-house Mechanism |
| COP | Conference of the Parties to the Convention |
| COP MOP | Conferences of the Parties serving as the Meeting of the Parties (to the Protocols) |
| GBO | Global Biodiversity Outlook |
| GEF | Global Environment Facility |
| GEF IEO | Global Environment Facility Independent Evaluation Office |
| GIS | Geographic Information System |
| IAS | Invasive alien species |
| IUCN | International Union for Conservation of Nature |
| IPBES | Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services |
| IPLCs | Indigenous peoples and local communities |
| LDCs | Least developed countries |
| LMOs | Living modified organisms |
| NBSAP | National Biodiversity Strategy and Action Plan |
| NCSA | National Capacity Self-Assessment |
| NGO | Non-governmental organisation |
| REDD+ | Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries |
| SBI | Subsidiary Body on Implementation |
| SBSTTA | Subsidiary Body on Scientific, Technical and Technological Advice |
| SIDS | Small Island Developing States |
| UNDP | United Nations Development Programme |
| UNEP | United Nations Environment Programme |
| UNEP-WCMC | UN Environment Programme World Conservation Monitoring Centre |

# Glossary of terms

The following glossary of terms is intended to provide the scope and interpretation of the main terms used in this report so as to build a common understanding of key terms used.

**Capacity development**: is understood as the process whereby people, organisations and society as a whole unleash, strengthen, create, adapt, and maintain capacity over time, in order to achieve development results.[3]

**Capacity**: is considered as the ability of people, organisations and society as a whole to manage their affairs successfully.[4]

**Capacity-building approaches:** refers to the way in which capacity-building interventions are planned in order to achieve a desired outcome. Each of the different approaches entails a series of assumptions and provides the direction for the capacity-building intervention.

**Capacity-building intervention**: is interpreted as "a deliberate involvement in a process or system intended to influence events and/or consequences. The term may refer to single activities but often refers to sets of activities organised within a project, programme, or instrument".[5] Different capacity-building interventions use various approaches and modalities.

**Capacity-building modalities**: are the delivery methods used to achieve certain capacity-building goals. Selection of modalities is informed by the specific approach in which these are embedded, as well as by issues such as the type of need(s) being addressed and the target audience.

**Evaluation**: is an assessment at a point in time, often after the fact, that determines the worth, value, or quality of an activity, project, programme, or policy. Monitoring and evaluation depends upon good planning to elaborate capacity-building goals and the means to achieve them.

**Functional capacities**: management capacities needed to formulate, implement and review policies, strategies, programmes and projects.[6]

**Hard capacities**: tangible and visible, including organisational structures, systems, policies and procedures.

**Indicator**: a measure or metric based on verifiable data that conveys information about more than itself. A measure is a value that is quantified against a standard point in time. A metric is a set of measurements or data collected and used to underpin each indicator.

**Individual capacity:** refers to the skills, experience and knowledge that are vested in people (UNDP, 2009).

**Monitoring**: involves continuous, systematic observation and checking on activities and their results while work is still in progress.

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[3] UNDG. 2017. *UNDAF Companion guidance: Capacity development*. [Online]. [Accessed 11 December 2019]. Available from: https://undg.org/wp-content/uploads/2017/06/UNDG-UNDAF-Companion-Pieces-8-Capacity-Development.pdf
[4] UNDG. 2017. *UNDAF Companion guidance: Capacity development*. [Online]. [Accessed 11 December 2019]. Available from: https://undg.org/wp-content/uploads/2017/06/UNDG-UNDAF-Companion-Pieces-8-Capacity-Development.pdf
[5] Belcher, B., & Palenberg, M. 2018. Outcomes and Impacts of Development Interventions: Toward Conceptual Clarity. *American Journal of Evaluation*. 39(4), pp.478–495
[6] UNDP. 2009. *Capacity Development: A UNDP Primer*. Nations Development Programme, New York. Available from: https://www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/capacity-development-a-undp-primer/CDG_PrimerReport_final_web.pdf

**Organisational capacity**: comprises the internal policies, arrangements, procedures and frameworks that allow an organisation to operate and deliver on its mandate, and that enable the coming together of individual capacities to work together and achieve goals (UNDP, 2009).

**Soft capacities**: intangible and invisible, social and relational, including leadership, values, behaviours, commitment and accountability.

**South-South cooperation**: process whereby two or more developing countries pursue their individual and/or shared national capacity development objectives through exchanges of knowledge, skills, resources and technical know-how, and through regional and interregional collective actions, including partnerships involving governments, regional organisations, civil society, academia and the private sector, for their mutual benefit within and across regions.[7]

**Systemic capacity:** describes the broader system within which individuals and organisations function and that facilitates or hampers their existence and performance (UNDP, 2009).

**Technical capacities**: capacities associated with particular areas of expertise and practice in specific sectors or themes, such as biodiversity, biodiversity mainstreaming, ecosystem services, climate change, access and benefit sharing, biosafety, taxonomy, spatial analysis, remote sensing (adapted from UNDP, 2009).

**Technical and scientific cooperation**: process whereby two or more countries pursue their individual or collective goals through cooperative exchanges of scientific knowledge, skills, resources and technical know-how.[8]

**Triangular cooperation**: it involves Southern-driven partnerships between two or more developing countries supported by a developed country(ies)/or multilateral organisation(s) to implement development cooperation programmes and projects.[9]

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[7] United Nations Secretary General. 2012. Document SSC/17/3, Framework of operational guidelines on United Nations support to South-South and triangular cooperation https://undocs.org/en/SSC/17/3

[8] CBD Secretariat. 2016. C*apacity-building, technical and scientific cooperation, technology transfer and the clearing-house mechanism.* UNEP/CBD/SBI/1/6 paragraph 3. Available from: https://www.cbd.int/doc/meetings/sbi/sbi-01/official/sbi-01-06-en.pdf

[9] United Nations Secretary General. 2012. Document SSC/17/3, Framework of operational guidelines on United Nations support to South-South and triangular cooperation https://undocs.org/en/SSC/17/3

# 1. Introduction

At its thirteenth meeting, the Conference of the Parties requested the Executive Secretary to initiate a process for preparing a long-term strategic framework for capacity-building beyond 2020, ensuring its alignment with the follow-up to the Strategic Plan for Biodiversity 2011-2020 and the work of the Protocols.[10] The Executive Secretary was also requested to commission a study to provide the necessary knowledge base for the development of this framework.[11]

The present study analyses information related to the implementation of capacity-building for the Convention and its Protocols. Specifically, the study reviews the current status, needs and gaps, challenges, opportunities, good practices and lessons learned regarding capacity-building and technical and scientific cooperation for the implementation of the Convention and its Protocols, and identifies possible elements of the draft long-term strategic framework for capacity-building beyond 2020. See terms of reference for the study in Annex 1.

The document is organised as follows: section 2 presents key definitions used in the study, together with a succinct summary of the capacity-building provisions and latest developments under the Convention and its Protocols. Section 3 describes the landscape of biodiversity-related capacity-building and technical and scientific cooperation, focusing on what has been done, advancements made and the main providers of capacity-building support for implementation of the Convention and its Protocols. Section 4 presents a summary of key capacity-building needs and gaps identified by Parties and stakeholders. Key messages and priority capacity needs are also identified to inform the development of the long-term strategic framework. Section 5 identifies the main approaches and modalities that have been used to achieve capacity-building goals and to deliver capacity-building for biodiversity, identifying key strengths and limitations. Section 6 presents some common practices relating to monitoring and evaluation for capacity-building interventions, and an overview of the use of indicators and baselines in this field. In section 7, an overview of the wide breath of limitations and challenges for capacity-building that have been identified during the development of the study is presented. Finally, the last section of the report proposes a number of recommendations on the general direction for the long-term framework for capacity-building beyond 2020.

## Methodology

The methodology for the study consisted of an extensive literature review and internet-based search focusing on, but not limited to, sources listed in CBD COP decision 14/24. Additional sources were identified with the CBD Secretariat at the start of the study.

In addition, 41 semi-structured interviews with key informants were undertaken between July and September 2019. These were conducted with a range of interviewees including: representatives of Parties, including capacity-building recipients and providers/donors; officials from the CBD Secretariat and other intergovernmental organisations; and representatives from international non-governmental organisations; youth; and indigenous peoples and local communities. The selection of

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[10] CBD COP decision XIII/23. *Capacity-building, technical and scientific cooperation, technology transfer and the clearing-house mechanism.* Available from: https://www.cbd.int/doc/decisions/cop-13/cop-13-dec-23-en.pdf
[11] CBD COP decision 14/24. *Capacity-building and technical and scientific cooperation.* Available from: https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-24-en.pdf

interviewees was made using 'snowball sampling'.[12] The use of this sampling method provided flexibility for people that were initially selected to suggest other colleagues involved in some of the dimensions of this research. The table below (table 1) shows the number and proportion of interviewees classified according to their affiliation.

Table 1. Number and proportion of interviewees classified according to their affiliation

| Category | Subcategory | Total |
|---|---|---|
| Parties | | 14 (34%) |
| Intergovernmental organisations | Staff from CBD Secretariat | 10 (25%) |
| | Staff from other organisations | 13 (32%) |
| International organisations | | 1 (2%) |
| Representatives from youth and indigenous peoples and local communities | | 3 (7%) |
| Total | | 41 (100%) |

Guiding questions that were used for the interviews are presented in Annex 2. Interviews were subject to the UNEP-WCMC Code of Practice on Ethical Standards in Research. Participants were explicitly informed that the data gathered would be kept confidential, and their anonymity assured. Interviews were the primary information source for sections 5, 6 and 7, although the questions they were asked were informed by the literature review.

Interview transcripts were imported into NVivo software, and coded in the language in which the interviews were carried out (English and Spanish). A concept-driven coding approach was taken to extract the key findings relating to the interview questions. A matrix was produced to query individual responses and patterns, allowing for a systematic analysis of the information included in the interviews.

## Limitations

The study has a number of limitations, which are identified below.

Given the very broad scope of capacity-building for biodiversity, the data collection for the development of the study should not be considered exhaustive. Instead, the information should be seen as illustrative, particularly with respect to the current status of landscape of initiatives, as well as design and implementation of capacity-building interventions.

Two sources of information, specified in the terms of reference, were unavailable at the time the study was carried out: (i) the fourth national reports to the Cartagena Protocol were not available at the time of data collection, so the third national reports were used instead, and (ii) the Secretariat had been unable to secure funds for an independent evaluation of the impacts, outcomes and effectiveness of the short-term action plan (2017-2020) to enhance and support capacity-building for the implementation.

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[12] Bryman, A. 2012. *Social research methods*. [Online]. 4th edition. Oxford: Oxford University Press. [Accessed 11 December 2019]. Available from:
https://www.academia.edu/30520568/Social_Research_Methods_4th_Edition_by_Alan_Bryman.pdf

The analysis of capacity-building needs was done through a geographically representative but relatively small sample of countries. As a result, while the analysis provides an indication of the main needs, gaps and priorities identified and is thought to be fairly representative, it is not a sufficiently comprehensive overview if the information were to be used for purposes such as the establishment of a baseline for measuring impacts of capacity-building.

One of the sources identified are national reports. Unfortunately, the format of the national reports does not allow for a straightforward identification of capacity-building needs, gaps and priorities. The same applies to the national biodiversity strategies and actions plans. In some cases, the binary nature of the answers provided in national reports (yes or no), made it difficult to understand details of the specific capacity-building needs of countries.

While written evidence on the success of implementing different capacity-building methods and approaches does exist, it is limited and does not necessarily relate directly to biodiversity, and/or to supporting the achievement of the objectives of the Convention and its Protocols. While part of this was addressed through the interviews, the information gathered only represents the observations shared by a limited sample of individuals and organisations.

Regarding the relationship between capacity-building and biodiversity funding, particularly in terms of GEF funding, the information available does not adequately disaggregate the capacity-building component of biodiversity funding. Different ways to address this limitation, which go beyond the present study, should be explored in the context of the processes under the Convention and the GEF in particular.

Finally, it is important to note that capacity-building initiatives and interventions at the local level are not captured. To a large extent, the same applies to national capacity-building initiatives. Despite the contribution of local level capacity-building to the implementation of the Convention and its Protocols, such activities are rarely included in national reports and other sources unless they are part of major projects.

# 2. Capacity-building and development in the context of the Convention and its Protocols

## 2.1 The meaning and scope of capacity-building

There is no single agreed definition of capacity-building or of capacity development. However, for the purpose of this study, the definitions of the former United Nations Development Group (currently United Nations Sustainable Development Group) will be used. Capacity is considered as the ability of people, organisations and society as a whole to manage their affairs successfully. In turn, capacity development is understood as the process whereby people, organisations and society as a whole unleash, strengthen, create, adapt, and maintain capacity over time, in order to achieve development results.[13]

In recent years, the term capacity development has been used more frequently, rather than capacity-building. The main difference between the two terms is that capacity-building implies starting to build something new from scratch while "capacity development" means building on existing skills and knowledge and other capacities.[14] However, since capacity-building is the term mentioned in the Convention and the Protocols it is used in this study report.

According to the literature, there are three levels on which capacity-building objectives needs to be pursued: (i) individual, focusing on the skills, knowledge and experience for individuals to perform their roles; (ii) organisational, which relates to internal policies and structures of the institutions or organisations where those individuals perform their roles, and (iii) systemic, which refers to the enabling environment and broader context in which those individuals and organisations exist, including legal and policy frameworks, power relations and social norms.[15] Capacity-building requires that the capacities of individuals are enhanced. However, this depends on the quality of the organisations in which they work, which are influenced by the enabling environment in which they are embedded.[16] The three levels are therefore interlinked and for capacity-building to be effective, it needs to address them all.[17] In turn, technical and scientific cooperation is a process whereby two or more countries pursue their individual or collective goals through cooperative exchanges of scientific knowledge, skills, resources and technical know-how.[18] The close links between capacity-building and technical and scientific cooperation are evident, with technical and scientific cooperation being a key element of the process for strengthening capacities at the individual, organisational and systemic levels.

[13] UNDG. 2017. *UNDAF Companion guidance: Capacity development*. [Online]. [Accessed 11 December 2019]. Available from: https://undg.org/wp-content/uploads/2017/06/UNDG-UNDAF-Companion-Pieces-8-Capacity-Development.pdf

[14] European Parliament. 2017. *Briefing note: Understanding capacity-building/ capacity development: A core concept of development policy*. [Online]. [Accessed 11 December 2019]. Available from: http://www.europarl.europa.eu/RegData/etudes/BRIE/2017/599411/EPRS_BRI(2017)599411_EN.pdf

[15] Bester, A. 2015. *Capacity development: a report prepared for the United Nations Department of Economic and Social Affairs for the 2016 Quadrennial Comprehensive Policy Review*. [Online]. [Accessed 11 December 2019]. Available from: https://www.un.org/en/ecosoc/qcpr/pdf/sgr2016-deskreview-capdev.pdf

[16] OECD. 2008. The Challenge of Capacity Development: Working Towards Good Practice. *OECD Journal on Development*. vol. 8/3. [Online]. [Accessed 11 December 2019]. Available from: https://doi.org/10.1787/journal_dev-v8-art40-en.

[17] Bester, A. 2015. *Capacity development: a report prepared for the United Nations Department of Economic and Social Affairs for the 2016 Quadrennial Comprehensive Policy Review*. [Online]. [Accessed 11 December 2019]. Available from: https://www.un.org/en/ecosoc/qcpr/pdf/sgr2016-deskreview-capdev.pdf

[18] CBD Secretariat. 2016. C*apacity-building, technical and scientific cooperation, technology transfer and the clearing-house mechanism.* UNEP/CBD/SBI/1/6 paragraph 3. Available from: https://www.cbd.int/doc/meetings/sbi/sbi-01/official/sbi-01-06-en.pdf

In the context of the Convention and its Protocols it is important to note that capacity-building and development are essential means to facilitate implementation. Capacity-building efforts usually focus on the strengthening of human resources and institutional capacities in developing countries and countries with economies in transition.

While not usually considered as capacity-building in the strict sense, it is important to recognise that the capacities of individuals can also be increased through their regular participation in meetings associated with the Convention and its Protocols. In part, this is a result of the meeting content and discussions on it, but it is also a by-product of the networking opportunities that meetings bring. This is not discussed further below but should certainly be a consideration for those planning meeting delegations.

## 2.2 Capacity-building under the Convention[19]

The Convention addresses capacity-building and technical and scientific cooperation through several articles including, in particular, articles 12 and 18 (see box 1). The Convention also requires Parties to promote and encourage understanding of the importance of the conservation and sustainable use of biodiversity, cooperating with other States and international organisations in developing educational and public awareness programmes (Article 13).

### Box 1. Relevant provisions under the Convention

Article 12, *inter alia*, calls for Parties to establish and maintain programmes for scientific and technical education and training for the identification, conservation and sustainable use of biological diversity and its components and provide support for such education and training for the specific needs of developing countries.

Article 18 requires Parties to promote international technical and scientific cooperation and to cooperate with other Parties through the development and implementation of national policies and institutions, giving special attention to the development and strengthening of national capabilities, through human resource development and institutional building. It also requires Parties to encourage and develop methods of cooperation for the development and use of technologies, including indigenous and traditional technologies, and promote cooperation in the training of personnel and exchange of experts. Some of the methods mentioned are the establishment of joint research programmes and joint ventures for the development of relevant technologies.

Over the years, the Conference of the Parties has adopted a number of decisions inviting Parties, relevant organisations and the Executive Secretary to implement measures to enhance capacity-building, technical and scientific cooperation, and technology transfer, and to use available mechanisms, including the clearing-house mechanism, to support and facilitate the implementation of the Convention.[20]

The Conference of the Parties has also underlined the importance of a coherent and mutually supportive approach to capacity-building, exchange of information, technical and scientific cooperation and technology transfer under the Convention and its Protocols.[21]

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[19] See CBD website: https://www.cbd.int/cb/
[20] Relevant decisions include: XI/2; XII/2 B; X/33, para. 8; XII/15, para. 3; XI/16, para. 5; XII/19, para. 5; XI/1 D, para. 1; XII/16, para. 9 (a-b); XI/18; IX/30; X/15; X/31, para. 7; XI/24, para. 10; and XII/3, paras. 30, 31 and 32.
[21] CBD COP decision XII/2 B. *Review of progress in providing support in implementing the objectives of the Convention and the Strategic Plan for Biodiversity 2011-2020, and enhancement of capacity-building, technical and scientific cooperation*

At its thirteenth meeting, the Conference of the Parties adopted a short-term action plan (2017-2020) to enhance and support capacity-building for the implementation of the Convention and its Protocols.[22] The short-term action plan builds on the efforts by various national, regional and international organisations and initiatives to support Parties in the effective implementation of the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets. Then at its fourteenth meeting, the Conference of the Parties adopted a comprehensive and participatory process for the preparation of the post-2020 global biodiversity framework that will consider ways to strengthen means of implementation and implementation mechanisms, including capacity-building, technology transfer and resource mobilisation.[23] This will be complemented by specific processes under the Protocols.

The development of the long-term strategic framework for capacity-building beyond 2020 will take place in parallel with development of the post-2020 global biodiversity framework.

## 2.3 Capacity-building under Cartagena Protocol[24]

The Cartagena Protocol on Biosafety requires Parties to cooperate in the development and/or strengthening of human resources and institutional capacities in biosafety (Article 22). The Protocol also calls for Parties to promote and facilitate public awareness, education and participation concerning the safe transfer, handling and use of living modified organisms in relation to the conservation and sustainable use of biological diversity, taking also into account risks to human health (Article 23).

In 2018, the COP-MOP took note of the progress report on the implementation of the Short-Term Action Plan[25] as well as of the status of implementation for the Framework and Action Plan for capacity-building.[26] The COP MOP also urged Parties for the remaining period of the framework and action plan to prioritise and focus efforts relating to the development of national biosafety legislation, risk assessment, detection and identification of living modified organisms, public awareness, education and participation, and liability and redress.[27] The COP MOP acknowledged the need for a specific action plan for capacity-building for the implementation of the Cartagena Protocol and its Supplementary Protocol. This action plan should be aligned with the post-2020 Implementation Plan for the Cartagena Protocol and complement the long-term strategic framework for capacity-building beyond 2020. The Liaison Group on the Cartagena Protocol on Biosafety was requested to contribute to the development of the draft action plan for capacity-building for

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*and other initiatives to assist implementation.* Available from: https://www.cbd.int/doc/decisions/cop-12/cop-12-dec-02-en.pdf

[22] CBD COP decision XIII/23. *Capacity-building, technical and scientific cooperation, technology transfer and the clearing-house mechanism.* Available from: https://www.cbd.int/doc/decisions/cop-13/cop-13-dec-23-en.pdf

[23] CBD COP decision 14/34. *Comprehensive and participatory process for the preparation of the post-2020 global biodiversity framework. Available from:* https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-34-en.pdf

[24] See CBD website: http://bch.cbd.int/protocol/cpb_art22_dec.shtml

[25] CBD Secretariat. 2018. *Progress report on the implementation of the short-term action plan (2017-2020) to enhance and support capacity-building for the implementation of the convention and its protocols.* CBD/COP/14/INF/10. Available from: https://www.cbd.int/doc/c/67d8/fbcc/5959eee804e9911314c058d0/cop-14-inf-10-en.pdf

[26] CBD Secretariat. 2018. *Capacity-building.* CBD/CP/MOP/9/3. Available from: https://www.cbd.int/doc/c/d5c0/8eb4/7401418904faa1bdf2ab83b5/cp-mop-09-03-en.pdf

[27] Cartagena Protocol. 2018. COP MOP decision 9/3. *Capacity-building (Article 22).* Available from: https://www.cbd.int/doc/decisions/cp-mop-09/cp-mop-09-dec-03-en.pdf

implementation of the Cartagena Protocol and its Supplementary Protocol, and the draft long-term strategic framework for capacity-building beyond 2020, as appropriate.[28]

## 2.4 Capacity-building under Nagoya Protocol[29]

The Nagoya Protocol requires Parties to cooperate in the capacity-building, capacity development and strengthening of human resources and institutional countries with economies in transition, including through existing global, regional, sub regional and national institutions and organisations (Article 22).

At its first meeting held in 2014, the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol adopted a strategic framework for capacity-building and development to support the effective implementation of the Nagoya Protocol, which serves as a reference document to guide capacity-building efforts of Parties, relevant organisations and donors in support of the implementation of the Protocol.[30]

The COP MOP at its third meeting requested the Executive Secretary to prepare an evaluation of the strategic framework for capacity-building and development.[31] The evaluation report will include options and recommendations for further improvement of capacity-building to support the implementation of the Nagoya Protocol that could be taken into consideration in the preparation of the long-term strategic framework for capacity-building beyond 2020.

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[28] Cartagena Protocol, 2018. COP MOP decision 9/3. *Capacity-building (Article 22)*. Available from: https://www.cbd.int/doc/decisions/cp-mop-09/cp-mop-09-dec-03-en.pdf

[29] See CBD website: https://www.cbd.int/abs/keycapacity-whatdone.shtml

[30] Nagoya Protocol, 2014. COP MOP decision NP-1/8. *Measures to assist in capacity-building and capacity development (Article 22).* Available from: https://www.cbd.int/doc/decisions/np-mop-01/np-mop-01-dec-08-en.pdf

[31] Nagoya Protocol. 2018. COP MOP decision 3/5. *Measures to assist in capacity-building and capacity development (Article 22)*. Available from: https://www.cbd.int/doc/decisions/np-mop-03/np-mop-03-dec-05-en.pdf

# 3. Overview of the current capacity-building landscape

## 3.1 Introduction

A broad range of organisations are working to strengthen and develop capacities for the conservation and sustainable use of biodiversity, and the fair and equitable sharing of benefits. Between them they are acting at all levels - global, regional, national and local – and cover all issues relevant to the implementation of the Convention and its Protocols. This section aims to describe the current capacity-building landscape, including capacity-building initiatives and actions specific to the Convention and its Protocols, as well as those developed by others which support implementation. It also aims to provide an overview of the key actors involved in supporting and facilitating such capacity-building.

This is not the first effort to provide an overview of the capacity-building landscape relating to biodiversity and ecosystem services. For example, when the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) was under development, there were workshops and reviews carried out as a basis for developing the capacity-building function. As a result, the IPBES documents[32] detail numerous organisations involved in biodiversity and ecosystem-related capacity-building. The IPBES reviews were specifically concerned with capacity-building relating to the science-policy interface, but even so a significant number of organisations working in this area was identified, and the work of the organisations was inherently overlapping, with each organisation involved in a range of activities, partnerships, collaborations, networks and programmes.

While the IPBES reviews were primarily focused on international (both global and regional) bodies working on capacity-building, they also acknowledged the fact that a number of national organisations have experience and impact both within their own countries and outside. It is no accident that many such organisations are part of the Consortium of Scientific Partners on Biodiversity and engaged with the Bio-Bridge Initiative.[33]

## 3.2 Capacity-building under the Convention and its Protocols

Capacity-building activities to support the implementation of the Convention can broadly fall into two groups: 1) those that aim to enhance and maintain effective engagement and participation of countries in the context of the Convention and its Protocols and its processes at the global level; and 2) those that aim to improve and maintain effective implementation of the Convention and its Protocols.

### Capacity-building actions under the Convention

The fourth edition of the *Global Biodiversity Outlook* (GBO-4) highlighted that greater efforts were required to meet most targets, which would necessitate further capacity-building support, especially for developing countries, as well as countries with economies in transition. GBO-4 further noted that partnerships would be required at all levels to leverage broad-scale actions, to garner the necessary ownership and foster synergies in the national implementation of multilateral environmental agreements.[34]

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[32] See UNEP/IPBES.MI/1/INF/10, UNEP/IPBES/3/INF/3, IPBES/2/INF/13
[33] See https://www.cbd.int/cooperation/csp/
[34] CBD Secretariat. 2014. *Global Biodiversity Outlook 4*. Montréal, 155 pages.

The CBD Secretariat collaborates with a number of national, regional and international organisations programmes and initiatives in assisting Parties and indigenous peoples and local communities to implement the Convention and its Protocols. One of the mechanisms used to foster these partnerships has been through more than 200 partnership agreements[35], from which at least half include elements on collaboration to provide capacity-building support to Parties and stakeholders. In addition, the CBD Secretariat collaborates on an ad hoc basis with a number of intergovernmental, non-governmental, academic and research and business sector organisations, in organising or facilitating specific capacity-building activities.[36]

In 2016, recognizing the need for an integrated and coherent approach to capacity-building, the Conference of the Parties adopted the Short-Term Action Plan 2017-2020 to Enhance and Support Capacity-Building for the Implementation of the Convention and its Protocols.[37] It details the cross-cutting capacity-building support activities, tools and services to be coordinated by the Secretariat as well as the substantive capacity-building activities necessary for the effective implementation of the Convention and its Protocols.

The Short-Term Action Plan was developed on the understanding that the Secretariat should support, facilitate or coordinate with other partners the implementation of the identified activities. This aims to encourage cooperation and partner engagement in the delivery of capacity-building support. The importance of working through partners to deliver capacity-building support to Parties has been emphasised, recognising that partnering with organisations located in specific countries, regions or subregions and working directly with Parties and stakeholders on a day-to-day basis is more effective and sustainable way of delivering capacity-building.[38] In this regard, the Short-Term Action Plan identifies possible partners for their delivery.

From 2017, the Secretariat in collaboration with partners supported and facilitated several capacity-building activities in line with the short-term action plan (2017-2020) to enhance and support capacity-building for the implementation of the Convention and its Protocols. The CBD Secretariat has made efforts towards promoting synergetic and integrated programming and implementation of its capacity-building activities, in particular through a more systematic engagement of partners. The progress report on the implementation of the Short-Term Action Plan (2017-2020) to Enhance and Support Capacity-Building for the Implementation of the Convention and its Protocols[39] details progress made leading up to COP 14, including with respect to efforts made in strengthening collaboration with partners. Information gathered through interviews also highlighted the importance for the Secretariat to have a facilitative role in capacity-building taking advantage of its global reach and several partnership agreements rather than being in charge of delivering it. See

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[35] The partnership agreements are available on the CBD website at: http://www.cbd.int/agreements/

[36] CBD Secretariat. 2016. Report on the progress made and results achieved by the Secretariat in promoting and facilitating capacity-building support to parties for the effective implementation of the Convention and its Protocols. UNEP/CBD/SBI/1/INF/29. Available from: https://www.cbd.int/doc/meetings/sbi/sbi-01/information/sbi-01-inf-29-en.pdf

[37] CBD. 2016. COP decision XIII/23. *Capacity-building, technical and scientific cooperation, technology transfer and the clearing-house mechanism.* Available from: https://www.cbd.int/doc/decisions/cop-13/cop-13-dec-23-en.pdf

[38] CBD Secretariat. 2016. Report on the progress made and results achieved by the Secretariat in promoting and facilitating capacity-building support to parties for the effective implementation of the Convention and its Protocols. UNEP/CBD/SBI/1/INF/29. Available from: https://www.cbd.int/doc/meetings/sbi/sbi-01/information/sbi-01-inf-29-en.pdf

[39] CBD Secretariat. 2018. *Progress report on the implementation of the short-term action plan (2017-2020) to enhance and support capacity-building for the implementation of the convention and its protocols.* CBD/COP/14/INF/10. Available from: https://www.cbd.int/doc/c/67d8/fbcc/5959eee804e9911314c058d0/cop-14-inf-10-en.pdf

subsection 3.4 for a range of examples of networks led by the Secretariat that have supported delivery of capacity-building.

## Capacity-building actions under the Cartagena Protocol

In 2010, the COP MOP of the Cartagena Protocol adopted the Strategic Plan for the Cartagena Protocol on Biosafety for 2011-2020. Capacity-building is at the core of the Strategic Plan, for which the mission aims "to strengthen global, regional & national action and capacity in ensuring an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms that may have adverse effects on the conservation and sustainable use of biological diversity".[40] In 2012, the COP MOP adopted a Framework and Action Plan for Capacity-Building for the Effective Implementation of the Cartagena Protocol on Biosafety, and agreed to review the Framework at the eighth meeting in 2016.[41] As a result of the review, in 2016 the COP MOP decided to maintain the Framework and Action Plan until 2020.[42] Capacity-building efforts have been guided by these instruments.

The CBD Secretariat facilitates and delivers capacity-building activities for supporting the implementation of the Cartagena Protocol in collaboration with relevant organisations, some of which are mentioned in Annex 3.[43] Furthermore, the Biosafety Clearing-House includes information relating to capacity-building for biosafety, including capacity-building projects, a compendium of academically-accredited biosafety courses, therefore demonstrating the essential role that partners play in this field.

## Capacity-building actions under the Nagoya Protocol

In 2014, the Parties to the Nagoya Protocol adopted a strategic framework for capacity-building and development to support the effective implementation of the Protocol.[44] The Executive Secretary was requested to prepare an evaluation of that strategic framework in 2019 and submit the evaluation report for consideration by the fourth meeting of the Parties to the Nagoya Protocol in 2020 to facilitate its review and possible revision in conjunction with the review of the Strategic Plan for Biodiversity 2011-2020.[45]

According to the preliminary findings of the evaluation of the strategic framework for capacity-building and development to support the effective implementation of the Nagoya Protocol, significant progress has been made in the implementation of the Nagoya Protocol since its adoption in 2010. This success is intrinsically linked to the capacity-building and development efforts undertaken through various national, regional and global ABS initiatives and projects. GEF and other donors have invested important financial resources and supported numerous projects and initiatives.[46] The Secretariat, in collaboration with key partners, have played a crucial role in

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[40] Cartagena Protocol. 2010. COP MOP decision BS-V/16. *Strategic plan for the Cartagena Protocol on Biosafety for the period 2011-2020.* Available from: https://www.cbd.int/decision/mop/?id=12329

[41] Cartagena Protocol. 2012. COP MOP decision BS-VI/3. *Capacity-building*. Available from: https://www.cbd.int/decision/mop/?id=13236

[42] Cartagena Protocol. 2016. COP MOP decision CP-VIII/3. *Capacity-building.* Available from: https://www.cbd.int/doc/decisions/mop-08/mop-08-dec-03-en.pdf

[43] For example, see documents CBD/CP/MOP/9/INF/3 and CBD/CP/MOP/9/INF/4

[44] Nagoya Protocol, 2014. COP MOP decision NP-1/8. *Measures to assist in capacity-building and capacity development (Article 22).* Available from: https://www.cbd.int/doc/decisions/np-mop-01/np-mop-01-dec-08-en.pdf

[45] Draft elements for the evaluation of the strategic framework were discussed at the third meeting of the Informal Advisory Committee on Capacity-building for the Implementation of the Nagoya Protocol in March 2018 (see document CBD/ABS/CB-IAC/2018/1/3 available at https://www.cbd.int/meetings/ABSCBIAC-2018-01).

[46] CBD Secretariat. 2019. *Preliminary findings of the evaluation of the strategic framework for capacity-building and development to support the effective implementation of the Nagoya Protocol. Informal advisory committee on capacity-*

supporting capacity-building for the implementation of the Protocol. Some of the partners and materials are available through the ABS Clearing-House and the Biodiversity e-Learning Platform.

While a significant part of the capacity-building has been delivered in collaboration with partners[47], the preliminary findings emphasise the importance of the framework to encourage partnerships and the implementation of joint capacity-building activities with other relevant biodiversity-related conventions.[48] Some of the organisations supporting capacity-building on access and benefit-sharing and related areas are included in Annex 3.

# 3.3 The role of the Global Environment Facility

The Global Environment Facility (GEF), which serves as the financial mechanism for the Convention[49], is the main source of external support to enable developing country Parties to implement the Convention and its Protocols, including through building the necessary capacities. Financial contributions to the GEF are replenished every four years. Prior to the replenishment of the GEF Trust Fund, the CBD COP makes an assessment of the amount of funds that are necessary to assist developing countries, in accordance with the guidance provided by the COP, in fulfilling their commitments under the Convention over the next GEF replenishment cycle. The eighth replenishment of the GEF will run between 2022 and 2026, thus making it necessary for COP 15 to send clear guidance to the GEF Council for the prioritisation of such funds in light of the post-2020 global biodiversity framework.

## GEF support for capacity-building

The GEF provides support to the implementation of the Convention and its Protocols, as well as to a number of other focal areas. Despite being the main source of funding for this purpose, capacity-building is only part of the intention and outcome. Therefore, based on the available information, including through reports from the GEF Secretariat, it is very difficult to clearly understand the extent of the investment for capacity-building as opposed to other project purposes. That being said, the GEF has clearly had a very major impact in many areas.

GEF support for implementation of the Strategic Plan for Biodiversity has been covered through a series of replenishments, starting with GEF-5. Currently, the seventh replenishment of the Trust Fund which runs from 2018 to 2022 applies to the final phase of the Strategic Plan for Biodiversity 2011-2020 and beginning of a post-2020 global biodiversity framework. The goal of the GEF-7 Biodiversity Focal Area strategy is to maintain globally significant biodiversity in landscapes and seascapes. To achieve this goal, GEF investments will contribute to the following three objectives identified in the CBD COP 13 guidance to the GEF:

- Mainstream biodiversity across sectors as well as landscapes and seascapes;
- Address direct drivers to protect habitats and species; and

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*building for the implementation of the Nagoya Protocol*. CBD/ABS/CB-IAC/2019/1/3. Available from: https://www.cbd.int/doc/c/2069/8aa9/5c2cc2567b34b825e618d109/np-cbiac-2019-01-03-en.pdf

[47] See for example, document CBD/NP/MOP/3/INF/1 https://www.cbd.int/doc/c/6885/222e/f9ef39a73ccf61c40e7d9a60/np-mop-03-inf-01-en.pdf

[48] CBD Secretariat. 2019. *Preliminary findings of the evaluation of the strategic framework for capacity-building and development to support the effective implementation of the Nagoya Protocol. Informal advisory committee on capacity-building for the implementation of the Nagoya Protocol*. CBD/ABS/CB-IAC/2019/1/3. Available from: https://www.cbd.int/doc/c/2069/8aa9/5c2cc2567b34b825e618d109/np-cbiac-2019-01-03-en.pdf

[49] CBD. 1996. COP decision III/8**.** 1996. *Memorandum of understanding between the Conference of the Parties to the Convention on Biological Diversity and the Council of the Global Environment Facility.* Available from: https://www.cbd.int/decision/cop/?id=7104

- Further develop biodiversity policy and institutional frameworks.[50]

The GEF works through a wide range of organisations that operate within the capacity-building landscape, including United Nations agencies, multilateral development banks, national entities and international NGOs. UNEP and UNDP are two of the GEF implementing agencies and they both play a key role in the biodiversity and ecosystem services arena. Projects are implemented in collaboration with executing partners (e.g. NGOs, governmental agencies, etc.) at all levels.

## Observations on project-based investment for capacity-building

All GEF support is delivered through projects, as is most externally supported capacity-building. Most are not necessarily capacity-building projects *per se*, but projects in which capacity-building is a component, although likely only one of the principal aims. Evaluation of GEF projects has 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 closed.[51] According to a range of evaluations of capacity-building interventions undertaken by donor institutions, there is no simple solution to the issue of financial sustainability in partner organisations, as in many cases these organisations struggled to develop resource models that would enable them to sustain capacity after the end of the donor support.[52]

Evaluation has also suggested that the interventions are not always adequately designed. When developing project objectives and work plans, there is a need to give due consideration to local circumstances (bureaucratic requirements, availability of material and equipment, delivery times). However, according to information gathered through interviews, project design is frequently done by external consultants, which can lead to an incomplete understanding of the specific context in which capacities are to be built. In this regard, evaluations of development interventions found that a good understanding of the context is necessary for aligning the capacity-building support to the needs, interests, priorities and capacities of the beneficiaries.[53]

The evidence suggests that project-based capacity-building might not be the most effective way to deliver meaningful and long-lasting outcomes. This however depends on the specific projects, their design and implementation. For example, the projects that seem to result in more effective capacity-building are those with a long-term capacity-building objective with commitments for three to five-years or longer. There are nonetheless some general findings that have been identified through the evaluation of GEF projects. For example, regarding GEF projects in the biodiversity focal area, at

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[50] Report of the Global Environment Facility to the Fourteenth Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD/COP/14/7)
https://www.cbd.int/doc/c/8f2c/c66a/7c55207b0946e7d2f146d257/cop-14-07-en.pdf

[51] For example, the Independent Evaluation Office (IEO) of the GEF has raised the need to address the issue of long-term sustainability for support provided to ABS and the Nagoya Protocol (see http://www.gefieo.org/sites/default/files/ieo/signposts/files/abs-nagoya-2017-brief.pdf) and support provided for mainstreaming biodiversity (see http://www.gefieo.org/sites/default/files/ieo/evaluations/files/biodiversity-mainstreaming-2018_0.pdf)

[52] NIRAS indevelop. (2016). Joint Scandinavian Evaluation of Support to Capacity Development: Synthesis Report Joint Evaluation - Synthesis report. Retrieved from
https://norad.no/contentassets/67a3f6b71b1f41129274dcdbcab2c8df/joint-scandinavian-evaluation-of-support-to-capacity-development.pdf

[53] NIRAS indevelop. (2016). Joint Scandinavian Evaluation of Support to Capacity Development: Synthesis Report Joint Evaluation - Synthesis report. Retrieved from
https://norad.no/contentassets/67a3f6b71b1f41129274dcdbcab2c8df/joint-scandinavian-evaluation-of-support-to-capacity-development.pdf

least in some thematic areas projects deal with "capacity-building" and "awareness raising" together, not adequately addressing their differences.[54]

# 3.4 Other key actors supporting biodiversity related capacity-building?

Capacity-building is supported and delivered by a broad range of organisations for a wide range of different purposes. In order to better understand the breadth of this landscape, these organisations can be characterised as follows, and a number of examples have been provided in Annex 3:

- 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

The actions of these organisations are complemented by the expertise and programmes of a similarly broad range of national organisations, many of which also work internationally to support capacity-building in other countries.

As the primary purpose of reviewing the landscape is to improve understanding of how a future strategic framework can help promote cooperation and collaboration, as well as alignment with the priorities identified by the CBD COP, much of the rest of this section is focused on efforts that have been made or which are under way to increase the ways in which organisations work together.

## Approaches led by the CBD Secretariat

In an attempt to bring key players together, a number of partner initiatives have been developed under the Convention to enhance capacity-building. The CBD Secretariat is coordinating or actively involved in a number of partnership initiatives which are directly contributing to capacity-building for the effective implementation of the Strategic Plan for Biodiversity 2011-2020, and which will hopefully continue in some form after 2020. These initiatives include:

o *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.

o *PoWPA Friends Consortium[55]* 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. The members of the consortium have directly supported and contributed to a range of capacity-building activities, including both workshops and e-learning.

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[54] Global Environment Facility Independent Evaluation Office (GEF IEO), Biodiversity Focal Area Study, Evaluation Report No. 132, Washington, DC: GEF IEO, 2018
[55] See https://www.cbd.int/protected/friends

- *Bio-Bridge Initiative*[56] 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*[57] 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.

- *Japan Biodiversity Fund*[58] was established in 2011 by the Government of Japan under the CBD Secretariat to support the capacity-building efforts of the Secretariat for the implementation of so-called "Aichi Outcomes" including the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets. Through this fund, support is being provided in many different countries, and in collaboration with many different organisations.

- *Biodiversity E-Learning Platform*[59]: Amongst other things the Japan Biodiversity Fund has supported development of the Biodiversity E-Learning Platform by the Secretariat. This platform already has substantial materials on protected areas, ABS, biosafety, and economics, trade and biodiversity, developed in collaboration with a number of partner organisations.

## Capacity-building by the biodiversity-related conventions

Capacity-building is essential for supporting the effective implementation of all multilateral environmental agreements, so each of the biodiversity-related conventions is promoting, facilitating or actually carrying out capacity-building activities.[60] It has been suggested on a number of occasions that a more integrated and coordinated approach to capacity-building across the conventions might not only provide an opportunity for increasing the long-term impact of the different interventions, but also make a more effective use of limited resources. Examples of capacity-building activities led by other biodiversity-related conventions include:

- *Convention on Wetlands:* In 2015, the Conference of the Parties adopted the Ramsar Convention's Programme on communication, capacity building, education, participation and awareness 2016-2024. Goal 4 of the Programme is to "build the individual, institutional and collective capacity of people with a direct responsibility for Ramsar implementation". In addition, many of the other goals also relate to different dimensions of the capacity-building process. Implementation of the Programme is undertaken by a number of organisations who regularly work closely with the Convention Secretariat. Ramsar Regional Centres for training and capacity building and the networks for regional or sub-regional cooperation play a key role in supporting the implementation of the Convention at different levels.[61]

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[56] See https://www.cbd.int/biobridge/

[57] See https://www.cbd.int/soi/

[58] See https://www.cbd.int/jbf/

[59] See https://www.cbd.int/cb/E-learning/

[60] Peña Moreno, S., & Romero, V. (2018). Capacity building and synergies across the biodiversity-related conventions - Contributing to the design and subsequent implementation of a long-term strategic framework for capacity building for biodiversity beyond 2020. Retrieved from https://www.iucn.org/sites/dev/files/capacity_building_and_synergies_-_contribution_to_the_long-term_strategic_framework_for_capacity_building.pdf

[61] Ramsar Convention Secretariat. 2016. An Introduction to the Convention on Wetlands (previously The Ramsar Convention Manual). Ramsar Convention Secretariat, Gland, Switzerland. Available from: https://www.ramsar.org/sites/default/files/documents/library/handbook1_5ed_introductiontoconvention_e.pdf

- o *Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)*: A number of capacity-building efforts are undertaken under CITES, many of them led by the Secretariat. For example, CITES Virtual College is an online platform that aims to enhance capacities of Parties to implement the Convention, increase awareness of the Convention and provide learning and training materials on CITES. The main capacity-building tools developed by the CITES Secretariat are available on the CITES Virtual College and CITES train-the-trainers presentations.[62] In 2017, the CITES Secretariat developed a compilation of decisions that contain references to capacity-building.[63] Many of the references refer to the need to coordinate efforts with the biodiversity-related conventions.

- o *Convention on Migratory Species (CMS)*: The Strategic Plan for Migratory Species 2015-2023 includes capacity-building as a cross-cutting issue. It is however covered in detail in Goal 5 and Chapter 4. In the latter, capacity development is identified as one of the enabling conditions: "The CMS Family, Parties and other stakeholders need to address capacity building needs relating to information, awareness, knowledge and understanding as covered in the strategic targets. This is supported in particular by implementation of the CMS Capacity Building Strategy. A further step in this direction is capacity development using the Manual for the National Focal Points for CMS and its Instruments - a capacity building tool to guide the national focal points of CMS and its instruments on their roles and responsibilities, helping them to make a more effective contribution to implementation."[64]

Recognising the potential value of increased coordination, the CBD Secretariat embarked on a process to increase liaison among the biodiversity-related conventions with regard to capacity-building. The resulting 'capacity development coordinators group' proposed four key areas with high potential for synergy on capacity-building across the biodiversity-related conventions. The areas proposed were to: strengthen capacities on data collection/management; strengthen capacities of national focal points of the various conventions; strengthen capacities on spatial planning; development of a joint training course on mainstreaming gender into national biodiversity plans, policies and programmes. There is potential for the work of this group or an equivalent to enhance cooperation and collaboration on capacity-building for biodiversity among the biodiversity-related and Rio Conventions.

In addition, a number of initiatives under the other Rio Conventions have been established which bring together the efforts of different organisations which support capacity-building. Two examples that are slightly different from many of those above are:

- o *UNCCD Capacity-building Market Place*[65]*:* This part of the UNCCD Knowledge Hub was established as a place for practitioners to share information on capacity-building events, news, publications, courses and so on. The basic philosophy is capacity-building partners and practitioners will actively work with the UNCCD Secretariat to share resource and opportunities through the Market Place.

- o *Capacity-building portal (under UNFCCC)*[66]*:* The capacity-building portal is an interactive tool that collects, compiles and disseminates country-driven information and allows the display of information from the submissions of the non-Party stakeholders that support the

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[62] See https://cites.unia.es/cites/mod/resource/view.php?id=58
[63] See https://cites.org/sites/default/files/eng/com/ac-pc/ac29-pc23/E-AC29-09-PC23-10.pdf
[64] CMS, Resolution 11.2, Strategic Plan for Migratory Species 2015-2023
https://www.cms.int/sites/default/files/document/Res_11_02_Strategic_Plan_for_MS_2015_2023_E_0.pdf
[65] See https://knowledge.unccd.int/cbm/capacity-building-marketplace
[66] See https://unfccc.int/topics/capacity-building/workstreams/capacity-building-portal#eq-3

capacity and ability of developing countries at the national and regional levels in accordance with the provisions of the UNFCCC. In line with the provisions of UNFCCC COP decision 1/CP.2, the Paris Committee on Capacity-building will provide guidance to the UNFCCC Secretariat on the maintenance and further development of the web-based capacity-building portal. The Committee aims to strengthen the collaboration with a wide range of stakeholders, including academia, civil society, and the private sector.

o **UNFCCC Climate Technology Centre and Network (CTCN):** The Climate Technology Centre and Network (CTCN), one of the components of UNFCCC Technology Mechanism, is responsible for enhancing transfer and development of technologies to address climate change, and assisting countries in technology related activities through "a network of national, regional, sectoral and international technology networks, organizations and initiatives".[67] CTCN's main functions include: supporting countries in development of articulated proposals on climate technologies; providing technical support for development of technology needs assessments and development of technology action plans; and matching needs to available support and facilitating access to support.

## Lessons learnt from IPBES

During the initial development of IPBES, there was concern that the Platform should collaborate with existing initiatives on biodiversity and ecosystem services, to fill gaps and build upon their work, while avoiding duplication, and this was built into its operating principles.[68] In a document prepared for the Plenary on potential relationships between IPBES and existing institutions,[69] it was recommended that early on IPBES needed to identify: what activities it would carry out itself; what activities it would task others to do on its behalf; and what activities it would otherwise promote, facilitate and/or catalyse, whether directly or indirectly. The same philosophy would, of course, apply to the Convention's actions on capacity-building. The document then went on to identify the activities relevant to IPBES that might fall into each of these categories.

The same IPBES document[70] then went on to consider the mechanisms for collaboration and influence, identifying the various mechanisms that could be put in place to help ensure the effective engagement of relevant organisations and activities in a future IPBES. These included: liaison and coordination; accepting what others produced as IPBES inputs/products; promoting cooperation and coordination; providing mandates; influencing priorities; influencing activities; and joint programmes of work. At later meetings once IPBES was established, there was also discussion on how to establish strategic partnerships for supporting delivery of the IPBES work programme, and the guidance for doing this can be found in Annex III to Plenary decision IPBES-3/4.[71]

Based on submission from member governments, the IPBES task force on capacity-building developed a list of priority capacity-building needs which was subsequently approved by the Plenary

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[67] UNFCCC, Decision 1/CP.16, paragraph 123

[68] See the Functions, operating principles and institutional arrangements of IPBES, available at https://ipbes.net/system/tdf/downloads/functions_operating_principles_and_institutional_arrangements_of_ipbes_2012.pdf

[69] UNEP. 2010. *Potential relationships between the intergovernmental science-policy platform and existing institutions, held in Busan, Republic of Korea, from 7 to 11 June 2010.* UNEP/IPBES/3/INF/11. Available from: https://ipbes.net/document-library-catalogue/unepipbes3inf11

[70] UNEP. 2010. *Potential relationships between the intergovernmental science-policy platform and existing institutions, held in Busan, Republic of Korea, from 7 to 11 June 2010.* UNEP/IPBES/3/INF/11. Available from: https://ipbes.net/document-library-catalogue/unepipbes3inf11

[71] IPBES. 2015. Decision IPBES-3/4. *Communications, stakeholder engagement and strategic partnership.* Available from: https://ipbes.net/system/tdf/downloads/Decision_IPBES_3_4_EN_0.pdf?file=1&type=node&id=14613

in decision IPBES-3/1 (annex I),[72] and this provides the basis both for capacity-building activities that IPBES carries out, and activities which it encourages others to undertake. This is then reflected in the rolling plan for capacity-building which was welcomed in Plenary decision IPBES-5/1 (annex I).[73] This comprises three strategies: learning and engagement (which focuses on supporting those engaged in delivering the IPBES work programme); facilitating access to expertise and information (which focuses on increasing access to and use of IPBES deliverables, including guidelines and tools); and strengthening national and regional capacities.

## 3.5 Observations and recommendations relating to the capacity-building landscape

Given the broad range of organisations, initiatives and networks involved in biodiversity-related capacity-building at all levels, it is important to focus not on the organisations themselves, but on the mechanisms that the Convention might use in order to best draw on their expertise. The following suggestions are therefore made:

- **Consider where and how to place effort in using the existing capacity-building landscape**, and in particular identify:
    o what activities the Secretariat should carry out itself, whether from the regular budget of through voluntary funding
    o what activities the COP or Secretariat would explicitly task or invite others to do on its behalf (or recognise activities that are already being planned or undertaken)
    o what activities the COP or the Secretariat would otherwise promote, facilitate and/or catalyse, whether directly or indirectly, for example by identifying priorities

- **Enhance coordination and collaboration with other multilateral environmental agreements and intergovernmental processes relating to biodiversity and ecosystem services**, for example by:
    o leveraging existing arrangements, such as the Biodiversity Liaison Group, to address and coordinate issues related to capacity-building with a view to exchanging experiences and coordinating actions
    o establishing shared priorities at the programmatic level that would build a stronger case when fundraising for development and implementation of capacity-building interventions and would create higher impact

- **Consider how to improve access to information relating to the extent of the investment for capacity-building** as opposed to other project purposes. This would contribute to a better understanding of the capacity-building landscape.

- **Consider how to best extend and increase access to the online resources** that the CBD Secretariat is already making available, working closely with partner organisations with experience in different issues, and developing working relationships with other portals and virtual colleges/libraries.

- **Consider the establishment of a working group on biodiversity-related capacity-building** (global coordination mechanism), led by the CBD Secretariat, to increase the awareness of

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[72] IPBES. 2015. Decision IPBES-3/1. *Work programme for the Period 2014-2018.* Available from:
https://ipbes.net/system/tdf/downloads/Decision_IPBES_3_1_EN_0.pdf?file=1&type=node&id=14594&force=
[73] IPBES. 2017. Decision IPBES-5/1. *Implementation of the first work programme of the Platform.* Available from:
https://ipbes.net/system/tdf/decision_ipbes_5_1_en.pdf?file=1&type=node&id=16016&force=

capacity-building needs and opportunities, and to facilitate, monitor and evaluate capacity-building activities for biodiversity.

- **Consider the establishment of some form of ongoing relationship amongst donors on biodiversity-related capacity-building**, linking back to regional, national and community partnerships.

- Encourage the establishment of some form of **process at the national level to coordinate capacity-building efforts** so as to increase coordination and increase focus on sustainable outcomes.

Note that these are in addition to the work that the CBD COP regularly does to invite the GEF to support priorities identified by the COP. It is already assumed that the COP will request GEF support in implementing the post-2020 global biodiversity framework.

# 4. Capacity-building needs, gaps and priorities

## 4.1 Introduction

Capacity-building for biodiversity is a broad subject area. There are multiple aspects that need to be implemented in synergistic ways, with greater or lesser emphasis on particular elements, depending on the context in which activities are being carried out. 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 they ultimately support achievement of the objectives of the Convention and its Protocols.

This section presents a summary of key capacity-building needs and gaps identified by Parties and stakeholders. It also presents key messages and priority capacity needs to inform the development of the long-term strategic framework for capacity-building beyond 2020. This is based on the common capacity themes, needs and gaps identified during the study. Inevitably the information presented is not exhaustive, but it does provide an overview of the main capacity building and technological needs and gaps.

The primary sources of information were: a) national biodiversity strategies and action plans (NBSAPs) and national reports to the Convention and its Protocols (Annex 4, Tables 5 and 6); b) needs assessment reports;[74,75,76,77,78] c) readily-available assessments and studies, and other grey literature on capacity-building from organisations such as the International Union for Conservation of Nature (IUCN),[79] United Nations Development Programme (UNDP)[80] and the Global Environment Facility Independent Evaluation Office (GEF IEO);[81] and d) results from a survey carried out by the

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[74]CBD Secretariat. 2012. *Report of the Independent Evaluation of the Action Plan for Building Capacities for the Effective Implementation of the Cartagena Protocol on Biosafety.* UNEP/CBD/BS/COP-MOP/6/INF/2. Available from: http://cbd.int/kb/record/meetingDocument/85726?Subject=CPB

[75] CBD Secretariat. 2012. *Monitoring and reporting (article 33): analysis of information and trends contained in the second national reports.* UNEP/CBD/BS/COP-MOP/6/16. Available from: https://www.cbd.int/doc/meetings/bs/mop-06/official/mop-06-16-en.pdf

[76] CBD Secretariat. 2016. *Monitoring and reporting (article 33): analysis of information and gaps in the third national reports.* UNEP/CBD/BS/COP-MOP/8/11. Available from: https://www.cbd.int/doc/meetings/bs/mop-08/official/bs-mop-08-11-en.pdf

[77] CBD Secretariat. 2016. A*nalysis of information contained in the third national reports*. UNEP/CBD/BS/COP-MOP/8/11/Add.1. Available from: https://www.cbd.int/doc/meetings/bs/mop-08/official/bs-mop-08-11-add1-en.pdf

[78] CBD Secretariat. 2019. *Preliminary findings of the evaluation of the strategic framework for capacity-building and development to support the effective implementation of the Nagoya Protocol. Informal advisory committee on capacity-building for the implementation of the Nagoya Protocol.* CBD/ABS/CB-IAC/2019/1/3. Available from: https://www.cbd.int/doc/c/2069/8aa9/5c2cc2567b34b825e618d109/np-cbiac-2019-01-03-en.pdf

[79] Peña Moreno, S. and Romero, V. 2018. *Capacity building and synergies across biodiversity-related conventions. Contributing to the design and subsequent implementation of a long-term strategic framework for capacity building for biodiversity beyond 2020.* International Union for Conservation of Nature, Gland. [Online]. [Accessed 11 December 2019]. Available from: www.iucn.org/sites/dev/files/capacity_building_and_synergies_-_contribution_to_the_long-term_strategic_framework_for_capacity_building.pdf

[80] UNDP. 2016. *National Biodiversity Strategies and Action Plans: Natural Catalysts for Accelerating Action on Sustainable Development Goals.* Interim Report. United Nations Development Programme. Dec 2016. UNDP: New York, NY. 10017. Available from: https://www.cbd.int/doc/nbsap/NBSAPs-catalysts-SDGs.pdf

[81] Global Environment Facility Independent Evaluation Office (GEF IEO). 2018. *Biodiversity Focal Area Study, Evaluation Report No. 132.* Washington, DC: The Independent Evaluation Office (IEO) of the Global Environment Facility (GEF). [Online]. [Accessed 11 December 2019]. Available from: http://www.gefieo.org/sites/default/files/ieo/evaluations/files/biodiversity-study-2017_0.pdf

CBD Secretariat on the needs of Parties[82] and indigenous peoples and local communities (IPLCs).[83] In addition, data from NBSAP actions in at least 40 countries, reviewed by UNDP through the NBSAP Tagging project, was also used.[84]

Capacity needs and gaps identified in this study are presented differently in various documents. In some cases, they are explicitly mentioned, however, in others, the reports infer implicit, non-stipulated capacity needs and gaps. In other cases, the capacity needs and gaps were presented as capacity challenges. By examining these documents and reports including the policy goals and action plans, it is possible to 'work backwards' to identify the type of capacity needs and gaps that is most relevant to the concerned goal(s) and action(s).[85]

Capacity needs and gaps identified in this study relate to all three levels of capacity-building – capacity targeted at <u>individual</u>, <u>organisational</u>, and <u>systemic</u> levels. These three levels of capacity are interdependent and mutually reinforcing. Capacities across the three levels can be grouped into "hard" and "soft" areas. Hard capacities are tangible and visible, including organisational structures, systems, policies and procedures. "Soft" capacities are both intangible and invisible, as well as social and relational. They include leadership, values, behaviours, commitment and accountability. All are required for the effective implementation of the Convention and its Protocols.

Biodiversity-related capacity-building needs and gaps can be categorised in a number of different ways. In this study, and informed by literature review and survey results, capacity needs and gaps for the implementation of the Convention and its Protocols can be divided into two groups:

1. <u>Functional capacities</u> are broad, all–purpose skills, including management capacities needed to formulate, implement and review policies, strategies, programmes and projects. Functional capacities[86] are cross-cutting and go beyond specific thematic areas, and as such are equally relevant to the implementation of the Convention and its Protocols.

2. <u>Technical capacities</u> are associated with particular areas of expertise and practice in specific sectors or themes, such as biodiversity, ecosystem services, biodiversity

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[82] A total of 64 individual responses were received from a total of 43 countries (Albania, Algeria, Andorra, Antigua and Barbuda, Australia, Bahamas, Bangladesh, Belarus, Benin, Bhutan, Burkina Faso, Cameroon, Canada, Colombia, Côte d'Ivoire, Democratic Republic of the Congo, Dominican Republic, Ecuador, Eswatini, Germany, Ghana, India, Iran (Islamic Republic of), Iraq, Jordan, Liberia, Madagascar, Malawi, Malta, Mexico, Myanmar, Niger, Nigeria, Peru, Samoa, Senegal, Sudan, Suriname, Togo, Tunisia, Tuvalu and Zimbabwe). Respondents were asked to select the context in which they were responding to the questionnaire (i.e. CBD, Nagoya Protocol or Cartagena Protocol). Out of the 64 responses received, 33 responded in the context of the CBD, 24 for Nagoya Protocol and 29 for Cartagena Protocol. Some countries submitted responses in the context of all or two of the three instruments.

[83] Three IPLCs responded to the survey and these are ROSCIDET (Cote d'Ivoire) and Indigenous Knowledge and Peoples Network Society for Wetland Biodiversity Conservation Nepal (Nepal) and Every Woman Hope Centre (Nigeria).

[84] Armenia, Belarus, Benin, Bhutan, Botswana, Cameroon, Dominican Republic, Estonia, Gambia, Georgia, Guatemala, Guyana, Jordan, Kyrgyzstan, Madagascar, Malawi, Maldives, Mali, Mauritania, Moldova, Mongolia, Myanmar, Namibia, Nepal, Niger, Nigeria, Niue, Peru, Serbia, Seychelles, South Africa, St. Kitts and Nevis, Sudan, Suriname, Tuvalu, Uganda, Uruguay, Venezuela, Vietnam and Zambia.

[85] UNDP. 2016. *National Biodiversity Strategies and Action Plans: Natural Catalysts for Accelerating Action on Sustainable Development Goals.* Interim Report. United Nations Development Programme. Dec 2016. UNDP: New York, NY. 10017. Available from: https://www.cbd.int/doc/nbsap/NBSAPs-catalysts-SDGs.pdf

[86] Functional and technical capacities are necessary for creating and managing policies, legislations, strategies and programmes. UNDP has found that the following functional capacities are key: 1) engage stakeholders; 2) assess a situation and define a vision and mandate; 3) formulate policies and strategies; 4) budget, manage and implement; and 5) evaluate (UNDP, 2008).

mainstreaming, climate change, access and benefit sharing, biosafety, taxonomy, spatial analysis, or remote sensing.

Functional capacities identified in this study can be further divided into five groups or categories:[87]

1. <u>Capacities for engagement</u> – capacities to engage proactively and constructively with a wide range of stakeholders to tackle biodiversity loss.

2. <u>Capacities to generate, access and use information and knowledge</u> – capacities to understand, acquire, use and communicate pertinent information and knowledge.

3. <u>Capacities for policy and legislation development</u> – capacities to plan and develop effective policy, legislation, related strategies and plans based on informed decision-making processes.

4. <u>Capacities for management and implementation</u> – capacities to enact and enforce policies and/or regulations, and plan and execute relevant actions and solutions.

5. <u>Capacities to monitor and evaluate</u> – capacities to effectively monitor and evaluate achievements against expected results, and to provide feedback for learning and adaptive management, suggesting adjustments to the course of action as needed.

## 4.2 Specific functional capacity needs and gaps

There are many commonalities between the functional capacity-building needs and gaps identified in this study and the implementation of the Convention and its Protocols. The implementation of each is done through legislation, policies, strategies, programmes, initiatives and projects, among others. Each of the stages of developing and implementing legislation, policies and programmes requires a suite of functional capacities. The most frequently mentioned and common functional capacities required by Parties, IPLCs[88] and other relevant actors identified in this study include the following:

- *Capacities for engagement*: Examples include capacity to engage and consult with multiple stakeholders, including the private sector, IPLCs and youth, to establish science-policy platforms. Additionally, networking with stakeholders to negotiate and influence policymaking processes, to increase public awareness, communication and dissemination of information, and to develop specific programs targeted at increasing private sector awareness and securing corporate investments in biodiversity. Also, the need to enhance the capacities of IPLCs for addressing cross-cutting issues relevant to activities of the Convention and its Protocols at national and subnational levels (e.g. to implement the Nagoya Protocol, including with respect to the negotiation of mutually agreed terms).

- *Capacities to generate, access and use information and knowledge:* Examples include the need to generate and enhance the knowledge base and technologies relating to better understanding of biodiversity, its values, functioning, status and trends, and the consequences of its loss. For example, capacities to carry out biodiversity and ecosystem assessments, and natural capital assessments, building taxonomic knowledge, more

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[87] Global Environment Facility Independent Evaluation Office (GEF IEO). 2011. *Monitoring Capacity Development in GEF operations: A Framework to Monitor Capacity Development Initiatives.* Washington, DC: The Independent Evaluation Office (IEO) of the Global Environment Facility (GEF) [Online]. [Accessed 11 December 2019]. Available from: https://www.thegef.org/sites/default/files/documents/Capacity_Development_Indicators.pdf

[88] Every Women Hope Centre (Nigeria)

effective use of mapping and spatial analysis in biodiversity planning, and the ability to more effectively use remote sensing. Moreover, there is a need to promote, increase the accessibility and mainstream traditional and indigenous knowledge amongst sectors, institutions and professionals. Fundamental to all of this are the skills necessary to develop and implement effective policies relating to the sharing and use of data, information and knowledge, including indigenous and local knowledge.

- *Capacities for policy and legislation development*: Examples include the capacity to formulate and revise legislation, policies, strategies and programmes, and to find ways to more effectively mainstream biodiversity into other sectors.

- *Capacities for management and implementation:* Examples include the capacity to coordinate with others, strengthen partnerships, improve institutional inter-sectoral cooperation and coordination at the operational level including for cross-boundary management of biodiversity assets, and strengthen the capacity to enforce laws, regulation and policies.

- *Capacities to monitor and evaluate*: Examples include the capacity to develop and use indicators, to assess effectiveness of policies and regulations, to measure their impact, and to improve reporting. Capacity-building for monitoring and evaluation was one of the most common areas in which countries identified needs and gaps. For example, the need for adequate infrastructure and trained staff to produce baseline data needed for assessing policies, as well as monitoring and evaluation capacities relating to a range of specific thematic areas.

Other important functional capacity needs identified include:

- *Gender mainstreaming*: The main capacity need on gender included, within the context of the Convention and its Protocols, practical mainstreaming of gender in planning, decision-making and management of and access to natural resources. As well as mainstreaming educational curricula and research, and undertaking awareness campaigns on women and biodiversity. It was emphasised that there is a need to address the differentiated concerns of men and women relating to biodiversity and strengthen their capacities. It also noted that women are not currently fairly represented in planning and decision-making processes, and benefit little from biodiversity support programmes. This goes hand in hand with the technical capacity to study linkages between biodiversity and gender.

- *Resource mobilisation:* Capacity to mobilise resources emerged as one of the most common needs. Specific needs included the increased capacity for locating the necessary resources for facilities and equipment to support biodiversity actions,[89] funding for implementation, and long-term sustainability of biodiversity-related projects.

Such functional capacities were generally identified by Parties and other relevant stakeholders as being particularly important to the implementation of the Convention.[90] According to the responses of a survey relating to capacity-building needs and priorities, the following functional capacities received the highest scores:

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[89] Sudan, the Philippines and Samoa

[90] Peña Moreno, S. and Romero, V. 2018. *Capacity building and synergies across biodiversity-related conventions. Contributing to the design and subsequent implementation of a long-term strategic framework for capacity building for biodiversity beyond 2020.* International Union for Conservation of Nature, Gland. [Online]. [Accessed 11 December 2019]. Available from: www.iucn.org/sites/dev/files/capacity_building_and_synergies_-_contribution_to_the_long-term_strategic_framework_for_capacity_building.pdf

| Functional capacity | No. responses (from a total of 33) | Percent |
|---|---|---|
| Resource mobilization | 14 | 42% |
| Project design and management | 10 | 30% |
| Stakeholder engagement, networking, partnership development | 8 | 24% |
| Monitoring and evaluation | 8 | 24% |
| Institutional building | 7 | 21% |
| Strategic planning | 7 | 21% |
| Communication and awareness raising | 6 | 18% |
| Information and knowledge management | 5 | 15% |
| Leadership and management | 4 | 12% |
| Gender mainstreaming | 4 | 12% |
| Policy design and enforcement | 2 | 6% |

## 4.3 Key technical capacity needs and gaps under the Convention

Technical capacities are specific to a particular sector, area of expertise, or theme. A non-exhaustive list of the theme-specific capacity areas of focus for Parties, identified in the study includes: access and benefit sharing, agricultural biodiversity, biodiversity indicators, climate change and biodiversity, economic valuation of biodiversity and ecosystem services, ecosystem restoration, ecosystem services, forest biodiversity, gender mainstreaming, human-wildlife conflict, invasive alien species, mainstreaming of biodiversity, marine and coastal biodiversity, pollution control, sustainable use of biodiversity, taxonomy and traditional knowledge.

Examples of specific capacity needs and gaps within the context of identified themes are provided in Annex 4, Tables 7 and 8.

A key cross-cutting need would appear to be building understanding. With regards to mainstreaming, the majority of countries require capacity-building in biodiversity valuation and ecosystem accounting, as there is generally limited awareness of the value of biodiversity amongst countries, particularly its economic and socio-economic importance and its link to development. Tanzania, for example, identifies the need for capacity to generate knowledge and information regarding the importance of biodiversity and its impact on socio-economic development, as well as public awareness, advocacy and sensitisation of the public on biodiversity issues.[91] The GEF suggested providing capacity support to national biodiversity research institutions as an important catalytic effect for mainstreaming as this would strengthen their capacity and position to inform government policy levels, the conservation community and the public at large.[92] Increasingly,

[91] For example, Frederick von Humboldt Institute for Biological Research, the Neumann Pacific Institute for Environmental Research (IIAP) and Amazon Institute of Scientific Research (SINCHI) of Colombia and South African National Biodiversity Institute (SANBI)
[92] Global Environment Facility Independent Evaluation Office (GEF IEO). 2018. *Evaluation of GEF's Support to Mainstreaming Biodiversity.* Washington, DC: The Independent Evaluation Office (IEO) of the Global Environment Facility (GEF). [Online]. [Accessed 11 December 2019]. Available from: https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.ME_.C.55.inf_.02_Biodiversity_Mainstreaming_Evaluation_Synthesis_Report%20Nov_2018.pdf

countries are suggesting the need for capacity support to establish science-policy "bridge" institutions.[93]

Invasive alien species (IAS) is also an area which was repeatedly identified, with a range of specific dimensions being considered. For example, Samoa requested technical and financial capacity in the identification of IAS, their impact (economic, social and environmental) and their spatial spread. The issues identified included limited skilled staff and technical capabilities, and difficulties in obtaining resources and funding, particularly for emergency responses to IAS.[94] Antigua and Barbuda reported that capacity-building is needed throughout the 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 trends.[95]

There are also theme-specific capacity needs and gaps on new and emerging issues that were identified such as synthetic biology and digital sequence information on genetic resources.[96,97]

Meanwhile, according to survey responses compiled by the CBD Secretariat, the most critical issues for which capacity-building would be required in the next 10 years were identified as the following:

| Issue | No. responses (from a total of 33) | Percent |
|---|---|---|
| Climate change and biodiversity (Aichi Target 15) | 16 | 49% |
| Marine and coastal biodiversity (Aichi Target 10) | 15 | 46% |
| Biodiversity for development | 14 | 42% |
| Traditional knowledge, innovation and practices (Aichi Target 18) | 13 | 39% |
| Agricultural biodiversity | 12 | 36% |
| Forest biodiversity | 11 | 33% |
| Communication, education and public awareness (Aichi Target 1) | 11 | 33% |
| Resource mobilisation & financial mechanism (Aichi Target 20) | 10 | 30% |
| Ecosystem services (Aichi Target 14) | 10 | 30% |
| Ecosystem restoration (Aichi Target 15) | 10 | 30% |
| Sustainable use of biodiversity | 9 | 27% |
| Habitat loss, fragmentation and degradation (Aichi Target 5) | 9 | 27% |
| Integration of biodiversity values (Aichi Target 2) | 8 | 24% |
| Gender and Biodiversity | 7 | 21% |
| Access to genetic resources and benefit-sharing (ABS) and Nagoya Protocol (Aichi Target 16) | 6 | 18% |
| Sustainable agriculture, forestry and aquaculture (Aichi Target 7) | 6 | 18% |
| Invasive alien species (Aichi Target 9) | 6 | 18% |
| Economics, trade and biodiversity | 6 | 18% |
| Tourism and biodiversity | 6 | 18% |

[93] Government of Mexico. 2016. *Estrategia Nacional sobre Biodiversidad de México y plan de acción 2016 – 2030.* Conabio, Comisión Nacional para el Conocimiento y Uso de la Biodiversidad. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/mx/mx-nbsap-v2-es.pdf

[94] Samoa. Ministry of Natural Resources and Environment. 2016. National Biodiversity Strategy and Action Plan (NBSAP) 2015 – 2020. Ministry of Natural Resources and Environment. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/ws/ws-nbsap-v2-en.pdf

[95] Government of Antigua and Barbuda. 2014. *Antigua & Barbuda National Strategic Biodiversity Action Plan 2014-2020.* [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/ag/ag-nbsap-01-en.pdf

[96] See https://www.cbd.int/abs/dsi-gr/2017-2018/default.shtml

[97] CBD. Notification: Digital Sequence Information on Genetic Resources: Submission of views and information and call for expression of interest to undertake studies (Ref.: SCBD/NPU/DC/VN/KG/RKi/87804) (5 February 2019). Available from: https://www.cbd.int/doc/notifications/2019/ntf-2019-012-abs-en.pdf

| | | |
|---|---|---|
| In-situ conservation and protected areas (Aichi Target 11) | 5 | 15% |
| Dry and sub-humid land biodiversity | 5 | 15% |
| Identification and monitoring of biodiversity | 5 | 15% |
| National biodiversity strategies and action plans (Target 17) | 5 | 15% |

## 4.4 Capacity needs relating to biosafety and the Cartagena Protocol on Biosafety

The most common capacity-building needs for the implementation of the Cartagena Protocol on Biosafety identified in this study were categorised according to the focal areas for capacity-building of the framework and action plan for the effective implementation of the Cartagena Protocol on Biosafety[98] and other priorities set in COP-MOP decisions, for example, CBD/CP/MOP/DEC/9/3.[99]

Based on the needs assessment reports from the Convention,[100,101,102,103] and results from a survey carried out by the Secretariat on the needs of Parties[104] and IPLCs,[105] the top priority capacity needs identified in the 124 third national reports on the implementation of the Cartagena Protocol[106,107] include: human resources capacity development and training; risk assessment and other scientific and technical expertise; identification of living modified organisms (LMOs), including their detection;[108] scientific, technical and institutional collaboration at sub-regional, regional and international levels; risk management; public awareness, participation and education in biosafety; scientific biosafety research relating to LMOs; measures to address unintentional and/or illegal

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[98] CBD Secretariat. 2012. *Report of the sixth meeting of the conference of the parties to the convention on biological diversity serving as the meeting of the parties to the Cartagena protocol on biosafety*. UNEP/CBD/BS/COP-MOP/6/18. Available from: https://www.cbd.int/doc/meetings/bs/mop-06/official/mop-06-18-en.pdf

[99] Cartagena Protocol, 2018. COP MOP decision 9/3. *Capacity-building (Article 22)*. Available from: https://www.cbd.int/doc/decisions/cp-mop-09/cp-mop-09-dec-03-en.pdf

[100] CBD Secretariat. 2012. *Report of the Independent Evaluation of the Action Plan for Building Capacities for the Effective Implementation of the Cartagena Protocol on Biosafety.* UNEP/CBD/BS/COP-MOP/6/INF/2. Available from: http://cbd.int/kb/record/meetingDocument/85726?Subject=CPB

[101] CBD Secretariat. 2016. *Analysis of information contained in the third national reports.* UNEP/CBD/BS/COP-MOP/8/11/Add.1. Available from: https://www.cbd.int/doc/meetings/bs/mop-08/official/bs-mop-08-11-add1-en.pdf

[102] CBD Secretariat. 2016. *Monitoring and reporting (article 33): analysis of information and gaps in the third national reports.* UNEP/CBD/BS/COP-MOP/8/11. Available from: https://www.cbd.int/doc/meetings/bs/mop-08/official/bs-mop-08-11-en.pdf

[103] CBD Secretariat. 2012. *Monitoring and reporting (article 33): analysis of information and trends contained in the second national reports.* UNEP/CBD/BS/COP-MOP/6/16. Available from: https://www.cbd.int/doc/meetings/bs/mop-06/official/mop-06-16-en.pdf

[104] 30 Parties responded to the survey and these are: Andorra, Antigua & Barbuda , Bangladesh, Belarus, Bhutan, Burkina Faso, Cameroon, Colombia, Cote d'Ivoire, Dominican Republic, Ecuador, Germany, Ghana, Iran, Iraq, Jordan, Madagascar, Malta, Mexico, Myanmar, Niger, Nigeria, Peru, Senegal, Sudan, Suriname, the Bahamas, Togo, Tuvalu and Zimbabwe and three IPLCs (ROSCIDET (Cote d'Ivoire) and Indigenous Knowledge and Peoples Network Society for Wetland Biodiversity Conservation Nepal (Nepal) and Every Woman Hope Centre (Nigeria).

[105] Three IPLCs responded to the survey and these are ROSCIDET (Cote d'Ivoire) and Indigenous Knowledge and Peoples Network Society for Wetland Biodiversity Conservation Nepal (Nepal) and Every Woman Hope Centre (Nigeria).

[106] CBD Secretariat. 2012. *Monitoring and reporting (article 33): analysis of information and trends contained in the second national reports.* UNEP/CBD/BS/COP-MOP/6/16. Available from: https://www.cbd.int/doc/meetings/bs/mop-06/official/mop-06-16-en.pdf

[107] CBD Secretariat. 2016. A*nalysis of information contained in the third national reports*. UNEP/CBD/BS/COP-MOP/8/11/Add.1. Available from: https://www.cbd.int/doc/meetings/bs/mop-08/official/bs-mop-08-11-add1-en.pdf

[108] For example, guidance and training on risk assessment prior to taking decisions regarding LMOs and guidance and training on risk management

transboundary movements of LMOs;[109] socio-economic considerations; and taking into account risks to human health.[110,111]

The need for capacity support on socio-economic considerations and "taking into account risks to human health" slightly increased if the scoring for the same capacity categories in the second and third national reports are juxtaposed.[112,113] Capacity needs on information, technology transfer, institutional capacity, implementation of the documentation requirements under Article 18.2 of the Protocol and handling of confidential information have either remained the same or slightly decreased when comparing the scoring in the second and third national reports.

Priority functional and technical capacities needed for the implementation of the Cartagena Protocol on Biosafety include: communication and awareness; stakeholder engagement; network and partnership development; and resource mobilisation, monitoring and evaluation.[114] Priority functional and technical capacities of IPLCs identified include leadership and management, policy design and enforcement, and strategic planning.[115]

Based on the needs assessment reports,[116,117,118,119] COP MOP decision CP-9/3[120] and the results from a survey carried out by the CBD Secretariat on the needs of Parties[121] and IPLCs[122], the overall

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[109] Capacity to take measures to require appropriate documentation accompanying LMOs-FFP, capacity support to allow reliable access to laboratory facilities for the detection of LMOs and training laboratory personnel in detection of LMOs and capacity to establish a mechanism for decision-making regarding the first intentional transboundary movements of LMOs for introduction into the environment.

[110] CBD Secretariat. 2012. *Monitoring and reporting (article 33): analysis of information and trends contained in the second national reports.* UNEP/CBD/BS/COP-MOP/6/16. Available from: https://www.cbd.int/doc/meetings/bs/mop-06/official/mop-06-16-en.pdf

[111] CBD Secretariat. 2016. A*nalysis of information contained in the third national reports*. UNEP/CBD/BS/COP-MOP/8/11/Add.1. Available from: https://www.cbd.int/doc/meetings/bs/mop-08/official/bs-mop-08-11-add1-en.pdf

[112] CBD Secretariat. 2012. *Monitoring and reporting (article 33): analysis of information and trends contained in the second national reports.* UNEP/CBD/BS/COP-MOP/6/16. Available from: https://www.cbd.int/doc/meetings/bs/mop-06/official/mop-06-16-en.pdf

[113] CBD Secretariat. 2016. A*nalysis of information contained in the third national reports*. UNEP/CBD/BS/COP-MOP/8/11/Add.1. Available from: https://www.cbd.int/doc/meetings/bs/mop-08/official/bs-mop-08-11-add1-en.pdf

[114] Based on results from a survey carried out by the CBD. The following countries responded to survey results on the Cartagena Protocol on Biosafety: Bhutan, Burkina Faso, Cameroon, Iran, Iran, Myanmar, Niger, Nigeria, Senegal and Zimbabwe

[115] Indigenous Knowledge and Peoples Network Society for Wetland Biodiversity Conservation (Nepal)

[116] CBD Secretariat. 2012. *Report of the independent evaluation of the action plan for building capacities for the effective implementation of the Cartagena Protocol on Biosafety.* UNEP/CBD/BS/COP-MOP/6/INF/2. Available from: https://www.cbd.int/doc/meetings/bs/bscmcb-08/official/bscmcb-08-mop-06-inf-02-en.pdf

[117] CBD Secretariat. 2012. *Monitoring and reporting (article 33): analysis of information and trends contained in the second national reports.* UNEP/CBD/BS/COP-MOP/6/16. Available from: https://www.cbd.int/doc/meetings/bs/mop-06/official/mop-06-16-en.pdf

[118] CBD Secretariat. 2016. *Monitoring and reporting (article 33): analysis of information and gaps in the third national reports.* UNEP/CBD/BS/COP-MOP/8/11. Available from: https://www.cbd.int/doc/meetings/bs/mop-08/official/bs-mop-08-11-en.pdf

[119] CBD Secretariat. 2016. A*nalysis of information contained in the third national reports*. UNEP/CBD/BS/COP-MOP/8/11/Add.1. Available from: https://www.cbd.int/doc/meetings/bs/mop-08/official/bs-mop-08-11-add1-en.pdf

[120] Cartagena Protocol, 2018. COP MOP decision 9/3. *Capacity-building (Article 22)*. Available from: https://www.cbd.int/doc/decisions/cp-mop-09/cp-mop-09-dec-03-en.pdf

[121] 30 Parties responded to the survey carried out by the CBD on capacity needs and these are: Andorra, Antigua & Barbuda , Bangladesh, Belarus, Bhutan, Burkina Faso, Cameroon, Colombia, Cote d'Ivoire, Dominican Republic, Ecuador, Germany, Ghana, Iran, Iraq, Jordan, Madagascar, Malta, Mexico, Myanmar, Niger, Nigeria, Peru, Senegal, Sudan, Suriname, the Bahamas, Togo, Tuvalu and Zimbabwe and three IPLCs (ROSCIDET (Cote d'Ivoire) and Indigenous Knowledge and Peoples Network Society for Wetland Biodiversity Conservation Nepal (Nepal) and Every Woman Hope Centre (Nigeria).

message is that capacity-building activities are needed on a whole range of issues relating to biosafety and the Cartagena Protocol on Biosafety. For example, the top priority capacity needs on the implementation of the Cartagena Protocol include: the development of national biosafety legislation; risk assessment; detection and identification of living modified organisms; public awareness, education and participation; biosafety mainstreaming and sharing of information; strengthening national biosafety frameworks; and liability and redress.

Some specific types of capacity-building highlighted include human resources capacity-building and scientific and technical expertise. For example, risk assessment and identification of living modified organisms (LMOs), including their detection scientific, technical and institutional collaboration at sub-regional, regional and international levels, and scientific biosafety research relating to LMOs.

## 4.5 Capacity needs on access and benefit-sharing and the Nagoya Protocol

During the study, Parties to the Nagoya Protocol identified the following as the key capacity needs relating to the implementation of the Protocol and to addressing emerging priority issues[123]:

- Legislation
- Building governmental capacity for law making
- Support to the discovery of "promising compounds" and/or the negotiation and implementation of "pilot" access and benefit-sharing contracts
- Building "stakeholder capacity" and technical capacity in the provider country
- Increasing the awareness of stakeholders, i.e. those not directly involved in the implementation of ABS frameworks
- Support for indigenous peoples and local communities and the protection of associated traditional knowledge
- Regional cooperation
- Developing databases of genetic resources and/or associated traditional knowledge

The preliminary findings of the evaluation of the strategic framework for capacity-building and the development to support the effective implementation of the Nagoya Protocol[124] concluded that Parties need capacity to implement measures that are relevant to Key Areas 3[125], 4[126] and 5[127]. These include capacity needs around the following:

- Negotiating mutually agreed terms (MAT) (e.g. through providing training materials on how to negotiate MAT and lessons learned). This need applies mainly to least developed countries and Small Island Developing States, and Parties with economies in transition.

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[122] Three IPLCs responded to the survey carried out by the CBD on capacity needs and these are ROSCIDET (Cote d'Ivoire) and Indigenous Knowledge and Peoples Network Society for Wetland Biodiversity Conservation Nepal (Nepal) and Every Woman Hope Centre (Nigeria).

[123] Global Environment Facility Independent Evaluation Office (GEF IEO). 2018. *Biodiversity Focal Area Study, Evaluation Report No. 132.* Washington, DC: The Independent Evaluation Office (IEO) of the Global Environment Facility (GEF). [Online]. [Accessed 11 December 2019]. Available from:
http://www.gefieo.org/sites/default/files/ieo/evaluations/files/biodiversity-study-2017_0.pdf

[124] CBD Secretariat. 2019. *Preliminary findings of the evaluation of the strategic framework for capacity-building and development to support the effective implementation of the Nagoya Protocol. Informal advisory committee on capacity-building for the implementation of the Nagoya Protocol.* CBD/ABS/CB-IAC/2019/1/3. Available from:
https://www.cbd.int/doc/c/2069/8aa9/5c2cc2567b34b825e618d109/np-cbiac-2019-01-03-en.pdf

[125] Capacity to negotiate mutually agreed terms (MAT)

[126] Capacity of indigenous peoples and local communities and relevant stakeholders to implement the Protocol

[127] Capacity to develop endogenous research capabilities

- Capacity of indigenous peoples and local communities and relevant stakeholders to implement the Protocol. Examples include the following:
  - Improving general awareness of ABS using actual examples and utilising methods that respect learning and information-sharing methods of indigenous peoples and local communities
  - Detailed guidance on issues related to genetic resources and associated traditional knowledge. This includes support for the development of community protocols and procedures; minimum requirements for MAT; model contractual clauses for benefit-sharing arising from the utilisation of traditional knowledge associated with genetic resources which take into consideration customary laws; and training indigenous lawyers.

As the Protocol is a legally binding instrument, the building of institutional capacities of legal institutions in provider and user countries is paramount. Also, the capacity to develop endogenous research capabilities. For example, building stronger scientific and research institutions in developing countries to add value to their own genetic resources, and to be better placed to collaborate with international research organisations. As well as, building capacities related to the assessment of the economic value of genetic resources and the development of value-chains for products derived from genetic resources. Additionally, ABS as business opportunities and strategies for sustainable development.

There are other key areas of the strategic framework for capacity-building and development to support the effective implementation of the Nagoya Protocol where gaps remain in Key Area 1 (capacity to implement and to comply with the Protocol) and Key Area 2 (capacity to develop, implement and enforce ABS measures). Examples of capacity needs under Key Area 1 include: the need to continue raising awareness on ABS and on the Framework for capacity-building and development, specifically with decision-makers and relevant stakeholders including the scientific and business communities; raising awareness among the general public of the value of genetic resources; how the equitable sharing of benefits derived from their utilisation can lead to increased conservation; developing access and benefit-sharing legislation or regulatory requirements considering Article 8 of the Protocol; and the need to ensure that the Nagoya Protocol and other relevant international instruments are implemented in a mutually supportive manner. Regarding Key Area 2, examples of capacity needs include: the need to build capacities of both user and provider countries to enforce and comply with ABS regulations; and capacity related to compliance and establishing checkpoints in the short-term, examining them in relation to other environmental regulations, permit requirements and policies.

The same preliminary findings of the strategic framework for capacity-building and development to support the effective implementation of the Nagoya Protocol also identified the following three emerging areas for capacity-building:[128]

- Digital sequence information on genetic resources (DSI), including capacity-building and technology transfer to assist in the access, use, generation and analysis of DSI for the conservation and sustainable use of biodiversity and benefit-sharing. Training in DNA technologies, such as DNA barcoding for rapid species identification.

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[128] CBD Secretariat. 2019. *Preliminary findings of the evaluation of the strategic framework for capacity-building and development to support the effective implementation of the Nagoya Protocol. Informal advisory committee on capacity-building for the implementation of the Nagoya Protocol.* CBD/ABS/CB-IAC/2019/1/3. Available from: https://www.cbd.int/doc/c/2069/8aa9/5c2cc2567b34b825e618d109/np-cbiac-2019-01-03-en.pdf

- Measuring the benefits that arise through the implementation of the Nagoya Protocol. This needs to focus not only on monitoring the use of genetic resources but also on measuring and reporting both monetary and non-monetary benefits that arise from the utilisation of genetic resources.

- Strengthening Parties' national environmental information systems, including indicators that can be used for decision-making and for monitoring obligations under other international agreements and processes such as the Sustainable Development Goals.

Priority functional and technical capacities needed for the implementation of the Nagoya Protocol include communication and awareness, resource mobilisation, stakeholder engagement, and networking and partnership development.[129][130]

## 4.6 Priorities apparent from the review of key sources

When looking across all information sources, some of the capacity needs and gaps were the most frequently mentioned. These include both functional and technical capacities. While the list below is not the result of an exhaustive review (and only a limited number of examples are given for each), it is indicative of key areas of concern for many countries.

- *Resource mobilisation and fundraising skills*: Lack of funding is one of the biggest challenges identified in all documents reviewed in this study. For example, some Parties reported the need for capacity to implement a resource mobilisation strategy, and plan to increase funding for biodiversity in the country. There is also the need for capacity to strengthen the functioning of the National Fund for Environment and Sustainable Development.[131][132]

- *Cooperation and collaboration with other actors and sectors:* For example, some Parties reported the need for support to improve institutional cooperation and coordination at the operational level, including for cross-boundary management of biodiversity assets,[133] and for developing mainstreaming approaches.

- *Institutional capacity (e.g. human resources, provision of adequate financial resources):[134]* To illustrate, capacity needs expressed by Parties in their NBSAPs include institutional capacity to promote the sustainable management of production landscapes in key development sectors,[135] and capacity support to establish training programmes in areas that universities

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[129] Based on results from a survey carried out by the CBD. The following countries responded to survey results on the Nagoya Protocol: Belarus, Bhutan, Cote d'Ivoire, Malta and Mexico

[130] Based on results from a survey carried out by the CBD. The following countries responded to survey results on the Nagoya Protocol: Belarus, Bhutan, Cote d'Ivoire, Malta and Mexico

[131] Republic of Cameroon. 2012. *National Biodiversity Strategy and Action Plan – Version II (2012-2020).* Younde: MINEPDED. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/cm/cm-nbsap-v2-en.pdf

[132] The Republic of the Union of Myanmar. 2015*. National Biodiversity Strategy and Action Plan (2015-2020).* Myanmar: Ministry of Environmental Conservation and Forestry. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/mm/mm-nbsap-v2-en.pdf

[133] Republic of South Africa. 2015. *South Africa's 2nd National Biodiversity Strategy and Action Plan 2015 – 2025*. Pretoria: Department of Environmental Affairs. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/za/za-nbsap-v2-en.pdf

[134] UNDP and United Nations Disaster Risk Reduction Offices (UNISDR) define institutional capacity as "*the capability of an institution to set and achieve social and economic goals, through knowledge, skills, systems, and institutions. While institutional capacity is often mentioned in development contexts and is well understood in general terms, it can be difficult to define in specific terms and in measurable ways*".

[135] Republic of Cameroon (2012) National Biodiversity Strategy and Action Plan – Version II (2012-2020). MINEPDED, Yaoundé. Available from: https://www.cbd.int/doc/world/cm/cm-nbsap-v2-en.pdf

have identified as priority gaps, including scientific writing, teacher training, and development of field-based courses.[136]

- *Networking and communication skills*: For example, some Parties reported the following needs: to increase public awareness on the conservation and sustainable use of biodiversity;[137] the need for capacity to develop and implement a Communication, Education and Public Awareness (CEPA) strategy for Biodiversity; mainstream the CEPA strategy on biodiversity into the curricula of all levels of education; and to develop specific programs targeted at increasing private sector awareness and securing corporate investments in biodiversity.[138]

- *Coordination with similar organisations and institutions*: For example, some Parties suggested the need for improved institutional arrangements and coordination mechanisms. Among them, this includes the capacity to improve and implement inter-sectoral coordination mechanisms between the environmental police, market management, customs, rangers, and fisheries authorities in the detection and enforcement of illegal exploitation, trafficking, and consumption of wildlife.[139]

- *Knowledge and information sharing*: A regularly identified key need is improved access to data, information and knowledge. To illustrate, the need for institutional capacity to improve taxonomic knowledge, use of georeferenced data in biodiversity planning, conducting biodiversity research and establishing a National Red Data Book for flora and fauna with the intention of user accessibility was mentioned.[140] Others have highlighted the need for improved information and knowledge management to support planning, decision making, and reporting.

- *Data capture, management and use (including indicators):* For example, some Parties highlighted the need for the following: capacity support to develop data collection protocols, guidelines on established data collection protocols, national biodiversity database and review model data sharing;[141] capacity support to develop indicators for monitoring the implementation of their NBSAP;[142] and the capacity to conduct biodiversity assessments/inventories of natural habitats of forests including mangroves, wetlands,

[136] The Republic of the Union of Myanmar. 2015. *National Biodiversity Strategy and Action Plan (2015-2020).* Myanmar: Ministry of Environmental Conservation and Forestry. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/mm/mm-nbsap-v2-en.pdf

[137] Guyana, Environmental Protection Agency & Ministry of Natural Resources and the Environment. 2014. *Guyana's National Biodiversity Strategy and Action Plan 2012-2020*. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/gy/gy-nbsap-v3-en.pdf

[138] Republic of Cameroon. 2012. *National Biodiversity Strategy and Action Plan – Version II (2012-2020).* Younde: MINEPDED. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/cm/cm-nbsap-v2-en.pdf

[139] Vietnam, Ministry of Natural Resources and Environment. 2015. *Vietnam National Biodiversity Strategy to 2020, vision to 2030*. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/vn/vn-nbsap-v3-en.pdf

[140] Republic of Cameroon. 2012. *National Biodiversity Strategy and Action Plan – Version II (2012-2020).* Younde: MINEPDED. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/cm/cm-nbsap-v2-en.pdf

[141] Government of Seychelles (GoS). 2014. *Seychelles Biodiversity Strategy and Action Plan 2015-2020.* Vitoria: Ministry of Environment and Energy. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/sc/sc-nbsap-v2-en.pdf

[142] Guyana, Environmental Protection Agency & Ministry of Natural Resources and the Environment. 2014. *Guyana's National Biodiversity Strategy and Action Plan 2012-2020*. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/gy/gy-nbsap-v3-en.pdf

riparian areas around river banks, lake shores, and un-protected biodiversity hotspots.[143] Others emphasised the need for more comprehensive datasets, monitoring capabilities, and monitoring systems.[144]

- *Technical skills related to assessment of biodiversity and ecosystem services, including understanding values:* For instance, some Parties noted the need for capacity to develop and implement a comprehensive programme for the valuation of biodiversity.[145] Others suggested the need for support to implement national programmes for biodiversity assessment.[146]

- *Integration of the value of biodiversity and ecosystem services in sectors*: For example, some Parties highlighted the need for capacity to develop and test national and local mechanisms for payment for ecosystem services through pilot projects.[147] Others need support to investigate economic valuation of biodiversity and payment of ecosystem services and development of tools for their integration in the national accounting system and support to establish and make operational a National Biodiversity Coordination Committee (NBCC) with sector and local regional units to ensure coherent, successful follow up and reporting on biodiversity issues.[148] Other Parties referred to the necessity to strengthen the capacity of institutions (specifically their forestry department and the media) to communicate biodiversity topics and values.[149]

- *Legislation, compliance and enforcement of environmental policies and legislation*: For example, one Party mentioned the need for capacity support to revise and consolidate protected areas legislation.[150] Others reported capacity needs around improving the legislative and institutional system and strengthening the capacity of law enforcement for the implementation of legal acts on biodiversity.[151] Furthermore, some Parties have emphasised the high priority that compliance should have in the post-2020 global biodiversity framework.[152]

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[143] Republic of Cameroon. 2012. *National Biodiversity Strategy and Action Plan – Version II (2012-2020).* Younde: MINEPDED. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/cm/cm-nbsap-v2-en.pdf

[144] Government of Antigua and Barbuda. 2014. *Antigua & Barbuda National Strategic Biodiversity Action Plan 2014-2020.* [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/ag/ag-nbsap-01-en.pdf

[145] Federal Republic of Nigeria. 2015. *National Biodiversity Strategy and Action Plan 2016-2020.* Federal Ministry of Environment. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/ng/ng-nbsap-v2-en.pdf

[146] Government of Peru. 2014. *La Estrategia Nacional De Diversidad Biológica Al 2021 Y Su Plan De Acción 2014-2018.* [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/pe/pe-nbsap-v2-es.pdf

[147] Government of the Republic of Moldova. 2015. *Strategy on Biological Diversity of the Republic of Moldova for 2015-2020 and the Action Plan for enforcing it.* [Online]. [Accessed 11 December 2019]. Available at: https://www.cbd.int/doc/world/md/md-nbsap-v2-en.pdf

[148] Republic of Cameroon. 2012. *National Biodiversity Strategy and Action Plan – Version II (2012-2020).* Younde: MINEPDED. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/cm/cm-nbsap-v2-en.pdf

[149] The Republic of the Union of Myanmar. 2015. *National Biodiversity Strategy and Action Plan (2015-2020).* Myanmar: Ministry of Environmental Conservation and Forestry. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/mm/mm-nbsap-v2-en.pdf

[150] Government of Seychelles. 2014. *Seychelles Biodiversity Strategy and Action Plan 2015-2020.* Vitoria: Ministry of Environment and Energy. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/sc/sc-nbsap-v2-en.pdf

[151] Vietnam, Ministry of Natural Resources and Environment. 2015. *Vietnam National Biodiversity Strategy to 2020, vision to 2030.* [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/doc/world/vn/vn-nbsap-v3-en.pdf

[152] South Africa and European Union

- *Spatial analysis and mapping remote sensing*: Effective use of mapping and spatial analysis is a key part of area-based planning, which plays a vital role in the conservation and sustainable use of biodiversity. For example, building capacity in spatial analysis is a large part of REDD+ and marine spatial planning. Capacity-building in spatial analysis, remote sensing and GIS was most commonly referred to in the African and Asian- Pacific regions. Generally, there is a lack of spatial information, skilled technical staff and funding, especially at the local level. Specific remote sensing capacity needs to include remote monitoring of forest cover and types, land use, ecosystems and, inventories of natural forest habitats, land condition and, documentation of the range of plants, particularly threatened flora and fauna species. Further specific needs include mapping of ecosystem services, community conserved and private conservation areas. One country[153] has also highlighted the need to integrate GIS with participatory consultations and within stakeholder groups.

## 4.7 Key messages from the findings on capacity needs within the context of the Convention and its Protocols

The key messages from the findings on capacity needs within the context of the Convention and its Protocols include the following:

- The needs and gaps in capacity-building for the implementation of the Convention and its Protocols are significant. The study identified numerous functional and technical capacity needs, gaps and cross-cutting capacity needs such as relating to mainstreaming gender in decision-making.

- Some of the most frequently cited **capacity needs and gaps** include: resource mobilisation and fundraising skills, cooperation and collaboration with other actors and sectors, institutional capacity, networking and communication skills, data collection, management and use, knowledge and information sharing, technical skills related to assessment of biodiversity and ecosystem services, including understanding values, integration of the value of biodiversity and ecosystem services in sectors and legislation and enforcement of environmental policies and legislation and spatial analysis and remote sensing.

- The most frequently cited **technical capacity needs and gaps covering various key topics on the Convention** in all the studies consulted, and from the Convention survey results, include sustainable use of biodiversity; marine and coastal biodiversity; ecosystem restoration; taxonomy; biodiversity indicators; and many others. However, specific capacity requirements under these themes differ from country to country.

- Some of the most **important functional and technical capacity needs** of Parties related specifically with the NBSAPs, include raising awareness about biodiversity; carrying out assessments of biodiversity and ecosystems status and trends; understanding the theory and practice of mainstreaming biodiversity; and developing and understanding biodiversity indicators.

- The top priority **capacity needs relating to biosafety and the Cartagena Protocol** include the development of national biosafety legislation; risk assessment; detection and identification of living modified organisms; public awareness, education and participation; biosafety mainstreaming and sharing of information; strengthening national biosafety frameworks; and liability and redress.

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[153] Myanmar

- Priority **capacity needs relating to ABS and the Nagoya Protocol** include negotiation of mutually agreed terms, the capacity of indigenous peoples and local communities and relevant stakeholders to implement the Protocol, and the capacity to develop endogenous research capabilities.

- **Priority functional capacities needed** for the implementation of the Nagoya Protocol include communication and awareness, resource mobilisation, stakeholder engagement, and networking and partnership development.

- **Emerging areas for capacity-building** relating to ABS and the Nagoya Protocol include digital sequence information on genetic resources, measuring the benefits that arise through the implementation of the Nagoya Protocol, and strengthening national environmental information systems.

# 5. Capacity-building approaches and modalities

## 5.1 Introduction

The Convention and its Protocols are implemented through policies, strategies, programmes, initiatives and projects. Capacity-building is delivered in many different ways. These are dependent on the target audience, the objectives of the specific interventions, and the geographic areas in which they are being implemented. This section identifies the main approaches and modalities that have been used to achieve capacity-building goals, to deliver capacity-building for biodiversity, and to satisfy needs for technical and scientific cooperation in this area, identifying strengths and limitations. Recommendations to inform the development and subsequent implementation of the long-term strategic framework for capacity-building beyond 2020 are presented.

There is limited available research information on the effectiveness of capacity-building approaches and modalities for achieving biodiversity outcomes. Therefore, this section draws heavily upon information gathered through interviews. During these interviews, feedback was gathered on the most commonly used types of capacity-building approaches and modalities, including comments on which ones have been the most and least effective. In addition, interviews have also helped to gain a basic understanding on whether capacity-building interventions are generally part of national programmes or of projects.

This information has been complemented by other written evidence, as well as by submissions made by Parties and stakeholders to the Secretariat in response to questionnaires made available through notifications 2018-094[154] and 2018-095.[155] The present analysis only considers responses to the questionnaires that were fully completed (26 out of the 65 respondents). As appropriate, the analysis below makes a distinction between the views from Parties and those from other stakeholders.

There appears to be little consistency in the use of terms across capacity-building literature.[156,157] In this report the following descriptions are used:

- **Capacity-building approaches** refer to the way in which capacity-building interventions are planned in order to achieve a desired outcome. Each of the different approaches entails a series of assumptions and provides the direction for the capacity-building intervention.

- **Capacity-building modalities** are the delivery methods used to achieve certain capacity-building goals. Selection of modalities are informed by the specific approach in which they are embedded, as well as by issues such as the type of need(s) being addressed and target audience.

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[154] CBD Secretariat. 2018. *Invitation to Submit Experiences and Lessons from Relevant Initiatives and Views Regarding the Long-Term Strategic Framework for Capacity-Building Beyond 2020.* SCBD/IMS/JMF/ET/CP/86365. Available from: https://www.cbd.int/doc/notifications/2018/ntf-2018-095-cb-en.pdf

[155] CBD Secretariat. 2018. *Invitation to Submit Experiences and Lessons from Relevant Initiatives and Views Regarding the Long-Term Strategic Framework for Capacity-Building Beyond 2020.* SCBD/IMS/JMF/ET/CP/86365. Available from: https://www.cbd.int/doc/notifications/2018/ntf-2018-095-cb-en.pdf

[156] Whittle S., Colgan A. and Rafferty M. (2012). Capacity Building: What the literature tells us. Dublin: The Centre for Effective Services

[157] Buss, I. 2010. *Best Practices in Capacity Building Approaches: Recommendations for the Design of a Long -Term Capacity Building Strategy for the Wind and Solar Sectors by the MEF Working Group.* Berlin, Germany: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH. [Online]. [Accessed 11 December 2019]. Available from: http://ledsgp.org/wp-content/uploads/2015/07/Best-Practices-in-Capacity-Building-Approaches.pdf

- **Capacity-building intervention** is interpreted as "a deliberate involvement in a process or system intended to influence events and/or consequences. The term may refer to single activities but often refers to sets of activities organised within a project, programme, or instrument".[158] Different capacity-building interventions use various approaches and modalities.

Capacity-building can be pursued at the individual, institutional and systemic levels. Some capacity-building approaches and modalities may be more appropriate to certain levels. Where relevant, this is identified in the information presented below.

## 5.2 Capacity-building approaches

Capacity-building for biodiversity has been designed and implemented using a variety of approaches, and Table 2 presents some of those most commonly used for capacity-building for biodiversity.

**Table 2. Most commonly used approaches towards capacity-building**

| Approaches | Strengths and opportunities | Challenges and limitations |
|---|---|---|
| **Encouraging capacity-building support within regions**: Many interviewees recognised the benefits of fostering capacity-building at the regional level. Regional organisations, regional hubs and centres of expertise located within regions can provide opportunities for targeted capacity-building. | • Regional hubs and national centres of expertise can potentially play a significant role in providing capacity-building support at regional, sub-regional, national and sub-national scales (for example, to support identification of capacity-building needs and priorities, to catalyse capacity-building efforts, to enhance collaboration and ownership)<br>• Collaboration between neighbouring countries, through national and regional centres of expertise and through bilateral or multilateral cooperation agreements have proven successful on a range of issues[159]<br>• Arrangements within regions can be fairly independent and self-organised[160] | • Lack of expertise on certain areas of knowledge at the regional level was mentioned as one of the key challenges. |

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[158] Belcher, B., & Palenberg, M. 2018. Outcomes and Impacts of Development Interventions: Toward Conceptual Clarity. *American Journal of Evaluation*. 39(4), pp.478–495

[159] CBD Secretariat. 2016. S*tocktaking summary of the technical and scientific cooperation needs of Parties, previous work carried out under the convention and initiatives relevant to the Bio-Bridge Initiative.* UNEP/CBD/COP/13/INF/22. Available from: https://www.cbd.int/doc/meetings/cop/cop-13/information/cop-13-inf-22-en.pdf

[160] IPBES Secretariat. 2013. *Report of the informal consultation on the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and capacity-building.* IPBES/2/INF/13. Available from: https://ipbes.net/ipbes2inf13-0

| Approaches | Strengths and opportunities | Challenges and limitations |
|---|---|---|
| **Building relationships and long-term partnerships** has been recognised as an important means for achieving positive development outcomes. Twinning is one of the types of partnership-building approaches and entails development of a partnership between two institutions with the aim of developing the capacities of one of them. However, partnerships between organisations are equally positive where they can be mutually supportive. | • Collaboration can increase delivery at the regional level if they involve key organisations and centres of expertise (e.g. SANBI in Southern African Development Community (SADC) or Africa region, or CONABIO or the Humboldt Institute in Latin America)<br>• Working at the regional level fosters collaboration with key partners on particular themes of relevance to the region<br>• Usually based on long-term cooperation[161]<br>• Building capacities through the use of coaching[162] and/or mentoring[163] can help develop long term relationships between individuals | |
| **Technical and scientific cooperation**, including through **South-South** and **triangular cooperation**[164] has gained prominence over time. South-South cooperation is a key dimension that has been highlighted through the interviews due to its value for those involved. | • South-South cooperation and triangular cooperation are important means to build institutional capacities | |
| **Peer-to-peer learning** can be implemented through a range of modalities and means such as communities of practice or by | • Beneficial for discussing actual challenges and addressing existing needs with peers that have gone through similar | • Proliferation of platforms aimed at establishing communities of practice, increasing the risk of |

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[161] Ouchi, F. 2004. *Twinning as a Method for Institutional Development: A Desk Review (WBI Evaluation Studies).* Washington: The World Bank Institute. [Online]. [Accessed 11 December 2019]. Available from: http://siteresources.worldbank.org/WBIINT/Resources/EG04-85.pdf

[162] Works with individuals on a one-to-one basis, although more than one person in an organisation may be coached at a time. Coaching is a task-oriented methodology that enables an individual to develop specific skills and behaviours to address identified issues

[163] Pairs a seasoned individual who possesses specific knowledge or expertise with a less experienced individual. Mentoring can offer targeted support, respond to specific challenges, or help individuals re-examine their own ideas and find their own solutions

[164] South-South cooperation is the process whereby two or more developing countries pursue their individual and/or shared national capacity development objectives through exchanges of knowledge, skills, resources and technical know-how, and through regional and interregional collective actions, including partnerships involving governments, regional organizations, civil society, academia and the private sector, for their mutual benefit within and across regions. In turn, triangular cooperation involves Southern-driven partnerships between two or more developing countries supported by a developed country(ies)/or multilateral organization(s) to implement development cooperation programmes and projects (adapted from United Nations document SSC/17/3)

| Approaches | Strengths and opportunities | Challenges and limitations |
|---|---|---|
| having practitioners in charge of the delivery of trainings or workshops. Some examples include the use of communities of practice[165] such as the NBSAP Forum (http://nbsapforum.net/), SGA Network (http://www.ecosystemassessments.net/), BES-Net (https://www.besnet.world/) and the UNCCD Capacity-building Marketplace (https://knowledge.unccd.int/cbm/capacity-building-marketplace).<br><br>The benefits of this approach have been highlighted in interviews and through the survey responses. | situations | duplication of efforts |
| **Blended learning** is the combination of different modalities in order to maximise impact.[166] For example, over time, there has been an increase in the use of e-learning modalities in combination with face-to-face trainings. In many cases, the e-learning component has been used as an introduction to the topics to be covered through a face-to-face meeting, with the preparatory stage being mandatory. For some, this approach has delivered positive outcomes although given the frequent use of e-learning for its delivery, some challenges remain. | • It allows for a rapid roll-out to large groups and can be cost effective (although the latter depends on the costs associated with developing the materials)[167]<br><br>• Use of different approaches in combination has the potential for a more significant impact when their design and implementation is mutually reinforcing | • It requires skilful design and management to ensure the right balance between the remote and the face-to-face components<br><br>• Requires a high level of compatible technology and study skills as prerequisites<br><br>• Development costs of e-learning materials can be high and, as mentioned below, the e-learning element is not suitable in many contexts |
| **Participatory approaches** (bottom-up) requires long-term intervention process in communities previously selected with whom a detailed | • Promote the consideration of priorities and gaps at the local/community levels while empowering those | • A participatory process that limits stakeholders to asking questions to members of expert panels |

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[165] Communities of practice can be defined as an informal, self-organized network of peers with diverse skills and experience in an area of practice or profession. Such groups are held together by the members' desire to help others (by sharing information and knowledge) and the need to advance their own knowledge (by learning from others) (Adapted from BusinessDictionary.com). Key features of communities of practice are common interests and working together towards common goals. IPBES Secretariat. 2013. *Report of the informal consultation on the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and capacity-building.* IPBES/2/INF/13. Available from: https://ipbes.net/ipbes2inf13-0

[166] Pearson, J. 2011. "Training and Beyond: Seeking Better Practices for Capacity Development", *OECD Development Co-operation Working Papers*, No. 1, OECD Publishing, Paris, https://doi.org/10.1787/5kgf1nsnj8tf-en

[167] Pearson, J. 2011. "Training and Beyond: Seeking Better Practices for Capacity Development", *OECD Development Co-operation Working Papers*, No. 1, OECD Publishing, Paris, https://doi.org/10.1787/5kgf1nsnj8tf-en

| Approaches | Strengths and opportunities | Challenges and limitations |
|---|---|---|
| roadmap should be developed, clearly defining activities and timeframes for the different actors involved.[168] It requires careful design and planning, particularly in large countries with extensive territories and communities in remote locations. | communities to support the achievement of biodiversity-related outcomes<br>• They provide an opportunity to strengthen the linkages between nature and culture | is a limited view of engagement and participation, limiting the opportunities to capacity-building[169] |
| **Train-the-trainers** requires strategically targeting trainers in order to maximise the reach and impact of the capacity-building outcomes. A fairly large number of interviewees and survey respondents suggested that this approach should be increasingly used | • The spill over effect of the train-the-trainers approach allows for the capacity-building process to continue without further intervention from the originator<br>• Opportunity for developing capacities strategically, targeting trainers at different levels. These can be trainers in institutions focused on research and education but also in government institutions | • Requires provision of materials, regular refresher updates, and monitoring to review the effectiveness of the 'spread' of those initially trained<br>• It targets a limited number of individuals, although the strategic focus can indeed make the outcomes more effective in the long run |

A thorough understanding of the desired outcomes is essential for the selection of the capacity-building approaches that will guide design and implementation of effective capacity-building interventions. That being said, an attempt was made to rank the capacity-building approaches presented above, based on peoples' perceptions of their effectiveness from interviews and questionnaires.[170] The effectiveness of the capacity-building approaches in realising the desired outcomes is perceived as being in the following order:

1. Train-the-trainers

2. Peer-to-peer learning

3. Encouraging capacity-building support within regions

4. Participatory approaches

5. Building relationships and long-term partnerships

6. Blended learning

## Key recommendations relating to capacity-building approaches

Building on the information above, the key recommendations are highlighted below.

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[168] IPBES Secretariat. 2013. *Report of the informal consultation on the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and capacity-building.* IPBES/2/INF/13. Available from: https://ipbes.net/ipbes2inf13-0

[169] Balm, K. 2008. *Building capacity through participation: Naura National Sustainable Development Strategy*. Philippines: Asian Development Bank. [Online]. [Accessed 11 December 2019]. Available from: https://www.adb.org/sites/default/files/publication/29196/nnsds-building-capacity.pdf

[170] Based on responses to interviews as well as questionnaires that were made available to Parties, IPLCs and relevant organizations through notifications 2018-094 and 2018-095

The CBD Secretariat should consider building upon existing partnerships to facilitate and promote the development and implementation of a strategic approach to capacity-building which addresses the following:

- Build on existing partnerships to develop a well networked group of technical assistance providers to address the Parties' technical and scientific needs on a wide range of issues

- Promote a regional approach towards delivery of capacity-building, drawing on existing partnerships and creating new ones as appropriate. For this purpose, build on existing regional support networks or hubs where possible to avoid duplication of efforts and identify regional organisations to coordinate relevant capacity-building initiatives

- Actively promote peer-to-peer learning through a range of approaches and modalities, including facilitating South-South and triangular cooperation

- Keep under consideration that different target audiences may benefit from different combinations of the capacity-building interventions

- Consider the use of combined approaches and a variety of modalities in order to increase the effectiveness of capacity-building

- Promote the train-the-trainers approach as a means to a more strategic development of capacities that would enable reaching a more targeted audience at the domestic level, thereby maximising the impacts in the long run

- Foster bottom-up approaches for capacity-building, such as through participatory assessments, to empower communities and ensure greater motivation for engagement, triggering their motivation for achievement of positive biodiversity outcomes

- Build on existing communities of practice where this is possible in order to benefit from existing communities and resources, and to avoid the risk of duplicating effort. When existing ones do not exist or are not fit-for-purpose, actively promote communities of practice, including building new communities of practice where this is necessary and appropriate, taking into account the specific circumstances in the regions/countries where the peer-to-peer learning is to be fostered so to select the most appropriate modalities for its delivery

- Put in place approaches for assessing the impact of different capacity-building approaches and modalities, as a basis for adjusting future implementation

In addition to the recommendations indicated above, the following from Table 2 are proposed for specific capacity-building approaches:

- Identify regional organisations to coordinate relevant capacity-building initiatives

- Build on the wide range of partnerships addressing specific themes or cross-cutting issues related to supporting the implementation of the Convention and its Protocols

- Enhance technical and scientific cooperation, including through South-South and triangular cooperation, as a means to foster peer-to-peer learning

- Expand the membership of the Consortium of Scientific Partners as a means to promote South-South cooperation and support, in particular when promoting technical and scientific cooperation within regions

- Improve the capacity of developing countries to absorb and adapt technology and skills to meet their specific needs

- Seek to develop capacity-building interventions that actively foster peer-to-peer learning so as to build relationships amongst practitioners

- When planning capacity-building interventions, consider how different capacity-building modalities can be combined in order to increase effectiveness

- When using blended learning, take into consideration the target audience of the capacity-building interventions to make sure the right combinations of modalities are chosen

- Explore ways to assist and stimulate community-based initiatives.

# 5.3 Capacity-building modalities

There is a myriad of **capacity-building modalities** that have been used to enhance conservation and sustainable use of biodiversity, and access and benefit sharing. The outcomes of the interventions however vary, as does their effectiveness. Unfortunately, there is not extensive literature addressing how capacity-building modalities work under different circumstances. However, Table 3 presents some of the most frequently used capacity-building modalities with a summary of the main strengths and limitations that have been identified through the interviews. To the extent possible, the order in the table illustrates frequency of use, starting with those that are most commonly used.

**Table 3. Most commonly used capacity-building modalities, their strengths and limitations**

| Modalities | Strengths and opportunities | Challenges and limitations |
|---|---|---|
| **Workshops and training sessions** gather a group of selected participants to learn or improve skills on a specific subject matter. It is one of the most popular modalities used for the delivery of capacity-building. Most training workshops are delivered in collaboration among national institutions, international and regional organisations, and NGOs. Many are delivered as part of live projects and in combination with other modalities (e.g. webinars, and guidance documents) in order to strengthen or build capacity in a more effective manner. | • For Parties and stakeholders, one of the key advantages of face-to-face sessions is that they promote exchange amongst peers, allowing for experience and information sharing between individuals working at national, regional and global levels.<br>• This is particularly relevant in some regions where cultural aspects or existing infrastructure make activities entailing remote participation very difficult to succeed.[171] | • Workshops tend to be an expensive way to deliver capacity-building as the number of participants that can benefit from them directly is limited.[172]<br>• One-off workshops are often not sufficient to lead to meaningful change.<br>• In some cases, there is no evidence that the knowledge gained through these sessions is subsequently applied by the beneficiaries.<br>• Selected participants are not always the most appropriate given that their roles are not necessarily linked to implementing the Convention or its Protocols, or fostering action on the ground. |

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[171] For example, meeting in person is the preferred modality for indigenous peoples and local communities or in regions such as Africa as not many people have satisfactory online capacities or infrastructure.

[172] A comprehensive list of workshops (176 workshops), lead and collaborating institutions as well as workshop reports are available on the NBSAP Forum

| Modalities | Strengths and opportunities | Challenges and limitations |
|---|---|---|
| **Online tools** include a wide variety of modalities, ranging from **web portals** and **clearing house mechanisms** to **e-learning** and **online forums**. These are used as means to promote the dissemination of knowledge and technical and scientific expertise.<br><br>An example of a particularly relevant platform is the Biodiversity e-Learning Platform (https://scbd.unssc.org/)[173] launched by the CBD Secretariat in 2017. The need to invest more time and effort in having a functional capacity-building portal was emphasised by a large number of interviewees.<br><br>In turn, each of these online tools embrace additional types such as e-learning modules (e.g. CITES Virtual College[174]), massive online open courses (MOOC) and webinars. They have been developed by a number of institutions and made available through different platforms over the last years. The two main types of e-learning are self-paced (a participant follows their own schedule) and facilitated (an instructor conducts the e-learning at a specified time via a web platform).[175] | • They can provide an effective means for increasing access to data, information and knowledge as they are freely available in many cases (particularly in self-paced trainings).<br><br>• When well designed and managed, and clearly focused on user needs, web portals can provide tools that help users to find the information that they need amongst a wealth of other data, information and knowledge across a range of other websites and resources.[176]<br><br>• In general, it enables the information to reach a wide audience with a lower cost than workshops, and avoids disruptions with work schedules.[177]<br><br>• Some stakeholders consider that MOOCs have delivered better results than self-paced tutorials as the latter require traction with people.<br><br>• There has been an increase in the use of e-learning modalities in combination with others (e.g. webinars and face-to-face training sessions), in many cases being used as an (mandatory) introduction to | • Technological constraints and inadequate internet connection.[178]<br><br>• Lack of motivation of those taking online modules, particularly when in many cases the lack of sufficient staff makes it is even difficult for some individuals to have enough time to perform all duties attached to their jobs.<br><br>• In some regions, there is an absence of culture of working online.<br><br>• Lack of financial and human resources with the necessary skills for the maintenance of the Clearing-house Mechanisms<br><br>• Multiplication of web platforms, many of which are not used (and in worst cases not known) by the intended target audience.<br><br>• Costs associated with development of e-learning materials can be relatively high depending on the skills and knowledge required for their development.<br><br>• Despite the increased number of web-based activities, these have not always been successful. Evidence suggests that this modality is still not yet widely used by Parties, other governments and indigenous peoples and local communities.[179] |

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[173] The platform was established with funding from the Government of Japan, through the Japan Biodiversity Fund, and is maintained in collaboration with the United Nations System Staff College (UNSSC).

[174] See https://cites.unia.es/

[175] FHI 360, Social Impact, and USAID. 2018. *Capacity Development Interventions: A Guide for Program Designers.* [Online]. [Accessed 11 December 2019]. Available from: https://www.ngoconnect.net/sites/default/files/resources/Capacity%20Development%20Interventions%20GuideV18.pdf

[176] IPBES Secretariat. 2013. *Report of the informal consultation on the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and capacity-building.* IPBES/2/INF/13. Available from: https://ipbes.net/ipbes2inf13-0

[177] For example, according to responses from an online survey that was sent to 1,100 registered users of the CBD Biodiversity e-learning platform indicated that 75% of the respondents were satisfied with their e-learning experience.

| Modalities | Strengths and opportunities | Challenges and limitations |
|---|---|---|
| Online forums and discussions are generally convened to foster discussion on a specific topic. Their duration is usually longer than a webinar and the advantage is that they require proactive involvement and participation. | topics that are to be later on complemented with face-to-face sessions. Some find that in-person meetings should take place first to establish key concepts, introduce participants to each other and facilitate information exchange.<br><br>• Online forums have in some cases proven useful as part of partnership building and networking as they bring together a community of individuals working on a specific area across the world. | |
| **Networking (e.g. meetings, dialogues, conferences and side-events)**: In addition to workshops and training sessions, other types of face-to-face modalities exist. A number of meetings, regional dialogues, conferences, and events (e.g. knowledge-sharing events) have been organised by the CBD Secretariat and other stakeholders to further promote national, regional and global collaboration for the implementation of the | • Networking enhances the dissemination of knowledge and expertise.<br><br>• Fosters relationships among groups or individuals who share similar interests, and provides the basis for peer-to-peer learning.<br><br>• It also furthers the establishment of partnerships and working relationships that are key to the sustainability of capacity-building.[180] | • Effectiveness of these modalities is difficult to measure. For example, based in interviews, networking seems to not deliver the intended outcomes in Africa because of inadequate financial resources to organise events and to make networks more operational.<br><br>• Effectiveness of side events that take place in the margins of the Convention meetings is unclear. Some consider that the effort that goes into planning these events does not relate to the actual level |

See CBD. 2018. Progress Report on the Implementation of the Short-Term Action Plan (2017-2020) To Enhance and Support Capacity-Building for the Implementation of the Convention and its Protocols.

[178] For example, according to responses from an online survey, 48% of users did not complete the e-courses because of connectivity issues. A similar percentage were unable to do so because of lack of time available to complete the course. See CBD. 2018. Progress Report on the Implementation of the Short-Term Action Plan (2017-2020) To Enhance and Support Capacity-Building for the Implementation of the Convention and its Protocols.

[179] A large number of participants (27 per cent of respondents) indicated that this part of the question was not applicable to them, perhaps meaning that they had not participated in e-learning activities. A fairly large number of participants who have used it (10 per cent) have not found e-learning effective. A few respondents commented that the online learning activities are not as successful because participants are not actively engaged and is difficult to interact and share experiences with others. One respondent noted that webinars were difficult to follow due to technical challenges, including limited internet connectivity which resulted in sessions getting disconnected. See UNEP/CBD/SBI/1/INF/29, Evaluation of the effectiveness of capacity-building activities supported and facilitated by the Secretariat for the implementation of the strategic plan for biodiversity (2011-2020) and its Aichi biodiversity targets

[180] Buss, I. 2010. *Best Practices in Capacity Building Approaches: Recommendations for the Design of a Long -Term Capacity Building Strategy for the Wind and Solar Sectors by the MEF Working Group.* Berlin, Germany: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH. [Online]. [Accessed 11 December 2019]. Available from: http://ledsgp.org/wp-content/uploads/2015/07/Best-Practices-in-Capacity-Building-Approaches.pdf.

| Modalities | Strengths and opportunities | Challenges and limitations |
|---|---|---|
| Convention and its Protocols. These modalities have been used for networking and knowledge dissemination. | | of participation. Furthermore, there seems to be a disconnect between the audience that these events aim to reach and their actual audience. |
| **Exchange programmes, study and field visits, internships, placements, fellowships**: The value of fellowships was particularly highlighted in interviews. | • Experiential learning is amongst the modalities that are perceived as most effective, involving hands on experience working together with peers from other countries or institutions that find themselves in similar work situations.<br>• Importance of focusing on individuals who can commit to making substantive contribution to their home institutions following the fellowship.<br>• The value of secondments/placements from relevant organisations and institutions is also recognised due to their role in promoting peer-based learning and strengthening cooperation among institutions. | • Implementation of these modalities requires the availability of financial resources. |
| **Guidance documents and resource materials** (guidelines, case studies, manuals, reports, toolkits, videos). | • One of the advantages of guidance documents is their potential to reach broader audiences.<br>• Their effectiveness varies on a case-by-case basis but there are some positive examples of resource materials that have been useful for their intended audiences. For example, the Convention in a nutshell[181] or the Gender Action Plan pocket guide[182] which have been used | • In some cases, guidance documents and resource materials are not necessarily perceived as very effective as they tend not to be developed in response to identified needs or in consultation with those who it is intended for. |

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[181] Global youth Biodiversity Network. 2016. *CBD in a nutshell.* Global Youth Biodiversity Network. Germany. 204 pages. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/youth/doc/cbd_in_a_nutshell.pdf

[182] CBD Secretariat. 2015. *2015-2020 Gender plan of action. Pocket guide: summary and examples*. Montreal, Canada: Secretariat of the Convention on Biological Diversity. [Online]. [Accessed 11 December 2019]. Available from: https://www.cbd.int/gender/doc/CBD-GenderPlanofAction-EN-WEB.pdf

| Modalities | Strengths and opportunities | Challenges and limitations |
|---|---|---|
| | not only as an awareness raising tools but also as a capacity- building tools because it gives people an opportunity to learn about what others are doing in these areas.[183] | |
| **Technical assistance/advice**, usually delivered through project-based interventions, in many cases targeting institutional strengthening. | • Provision of technical assistance proves more effective when tailored to the specific circumstances of a country/region. For example, in some cases networks of regional/national advisers have been established to deliver targeted support.<br>• There are also examples of mechanisms to enable countries to request on-site support (these can involve in-country visits). While this may be costly, it has been effective as a modality that delivers technical assistance that is adequate to the specific context where it is required.[184] | • Reliance on external consultants with a lack of in-depth understanding of the context in which capacities are to be developed.<br>• Lack of consideration of the real situation in the beneficiary country, for example, in terms of the equipment or facilities that would be required in order to sustain the built capacities over time. In many cases, capacity-building needs to involve supplying material to developing country parties to ensure that the trainees could do their research or other activity. |
| **International days** are aimed at promoting awareness and catalysing action. Even though these can be considered more an awareness raising modality rather than capacity-building, many interviewees mentioned the value these have in building capacities at the national and subnational levels. | • Helpful for the achievement of various goals, including education and awareness raising as well as mobilisation of human and financial resources to foster strengthened action in a specific area.<br>• Wide outreach, ranging from policymakers to civil society, youth and individual citizens. | • Not necessarily a capacity-building modality but depending on how these days are celebrated in each country, they can entail, for example, networking events and online forums. |
| **Help desks** | • The advantage of help desks is that they are meant to provide targeted support in real time. | • They can be human resource intensive as they may require a team of people specialised in |

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[183] A large number of the respondents (70 or 57 per cent) who utilized the training and guidance materials provided by the Secretariat agreed that they were useful and effective, 48 respondents (39 per cent) strongly agreed while 5 respondents (4 per cent) disagreed. Almost similar responses were made with regard to case studies and lessons learned. See UNEP/CBD/SBI/1/INF/29

[184] Ouchi, F. 2004. *Twinning as a Method for Institutional Development: A Desk Review (WBI Evaluation Studies).* Washington: The World Bank Institute. [Online]. [Accessed 11 December 2019]. Available from: http://siteresources.worldbank.org/WBIINT/Resources/EG04-85.pdf

| Modalities | Strengths and opportunities | Challenges and limitations |
|---|---|---|
| | | different dimensions of a topic and familiarised with the practical implications in different contexts.<br><br>• Help desks do not work so well if they are established in the headquarters of an organisation with no contact with the local/regional levels. |
| **Longer-term academic programmes**: When complex, technical knowledge is involved, a 3 to 5-day workshop would not be appropriate for building the necessary capacities. Therefore, depending on the objectives of the capacity-building interventions, longer-term academic programmes can be more appropriate. This could include summer schools, graduate and postgraduate courses (in-person or blended learning with a combination of in-person and distance learning), etc. | • They work better when delivery is in charge of individuals with practical experience on the subject matter (e.g. officers responsible for implementation, negotiators, etc.). Peer-to-peer learning provides a series of co-benefits as not only the technical component of the courses is targeted but also because a network is established. | • Some of the disadvantages of these modalities is that they are more costly and therefore a reduced number of individuals can benefit. However, in many cases scholarship programmes encourage participation of individuals from developing countries. |

Drawing on the information above, and based on peoples' perceptions,[185] the most commonly used capacity-building modalities are as follows:

1. Workshops and training sessions
2. Technical assistance
3. International days
4. Experiential learning (exchange programmes, study/field visits, etc.)
5. Online tools

However, their more frequent use does not necessarily imply that they are perceived as more effective in achieving their objectives. In fact, their apparent effectiveness (based on the same perceptions) is perceived in the following order:

1. Experiential learning (exchange programmes, study/field visits, etc.)
2. Workshops and training sessions
3. Longer-term academic programmes
4. Networking, including side events
5. Online tools[186]
6. Help desk support

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[185] Based on responses to interviews as well as questionnaires that were made available to Parties, IPLCs and relevant organizations through notifications 2018-094 and 2018-095

[186] Considered more effective when combined with face-to-face modalities

An analysis of the information gathered on the most frequently used capacity-building modalities identifies the following as contributing to effectiveness:

- Peer-learning and hands-on experience working with peers from different countries that have found themselves in similar situations.
- Opportunities for face-to-face interaction, leading to knowledge exchange and experience sharing among the specific individuals/groups.
- Longer term interventions that can better support the individuals and/or institutions throughout the capacity-building process, contributing to the sustainability of the implemented activities.
- Fostering relationships among groups or individuals who share similar interests, so as to build opportunities for ongoing interactions.
- Modalities that are adequately tailored to the specific circumstances of the target group.

## Key recommendations relating to capacity-building modalities

It is important to understand the interdependencies between individual, institutional and systemic levels in the specific context where the capacity-building interventions are being implemented, and to select the modalities for support accordingly. These interdependencies are specific to the context in the target or beneficiary country and organisation, and to the capacities being developed. Understanding those dependencies should therefore be part of the initial assessment, with the selection of modalities being made subsequently. Despite the recognition that the balance between individual, organisational and systemic capacities is context-dependent, evidence suggests that capacity-building appears more effective when objectives of the interventions target systemic capacities that will then guide capacity-building at the individual and organisational levels. Nonetheless, in most cases specific capacity-building outcomes are not defined at the systemic level and therefore not reported upon.[187] This creates a challenge in expanding the impact of capacity-building interventions. The evidence suggests that rather than the specific modalities used, something that has implications for the effectiveness of capacity-building interventions appears to be the relevance of specific modalities and approaches in the context of the goals to be achieved. Similarly, their relevance in the context of the capacity of the target group or institution to manage and absorb the capacities being developed.[188]

Building on the information above, the following key recommendations are highlighted:

- Selecting appropriate modalities requires an understanding of the interdependencies between individual, institutional and systemic levels in the specific context where the capacity-building interventions are being implemented.

- Recognise and acknowledge the value of cross-linkages between different modalities, with a view to multiplying and reinforcing the effects of the planned interventions.

- Focus efforts on working with national and regional experts rather than international consultants with limited understanding of the context where capacities are to be built.

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[187] NIRAS indevelop. 2016. *Joint Scandinavian Evaluation of Support to Capacity Development: Synthesis Report Joint Evaluation - Synthesis report.* [Online]. [Accessed 11 December 2019]. Available from: https://norad.no/contentassets/67a3f6b71b1f41129274dcdbcab2c8df/joint-scandinavian-evaluation-of-support-to-capacity-development.pdf

[188] NIRAS indevelop. 2016. *Joint Scandinavian Evaluation of Support to Capacity Development: Synthesis Report Joint Evaluation - Synthesis report.* [Online]. [Accessed 11 December 2019]. Available from: https://norad.no/contentassets/67a3f6b71b1f41129274dcdbcab2c8df/joint-scandinavian-evaluation-of-support-to-capacity-development.pdf

- Ensure concrete follow-up actions are agreed prior to the finalisation of the specific interventions.

- Consider the use of workshops in combination with other modalities such as e-learning, designing the blend in the most cost-efficient way to achieve the desired objectives and reinforce learning as part of a programme of activities.

- Identify ways to provide better access to online tools, so that they are more widely available and better integrated.

- Invest effort in improving the Biodiversity e-Learning Platform so that it is a centralised platform to enable access to different tools and knowledge materials to partners and countries working on capacity-building for biodiversity.

- Explore opportunities to work with communities of practice and centres of expertise, including at national and regional levels, to increase focussed training opportunities that can be built upon with peer-to-peer learning.

- Consider tools, experiences and lessons learned in other multilateral environmental agreements or organisations such as CITES or IPBES (e.g. CITES Virtual College or IPBES fellowship programme) considering potential suitability to the programmes and activities under the Convention and its Protocols.

- Make sure individuals and institutions in beneficiary countries/institutions demonstrate commitment for long-term partnerships; or consider alternative options for targeting the interventions when this is not the case.

- Consider opportunities for the CBD Secretariat to engage with educational institutions such as UNESCO and UNU and their networks in strengthening the opportunities for education for sustainable development

- Put in place approaches for assessing the impact of different capacity-building approaches and modalities, as a basis for adjusting future implementation.

In addition to the recommendations indicated above, the following from Table 3 are proposed for specific capacity-building modalities:

- Provide follow-up support after workshops and create networks for participants to continue sharing experiences.

- Encourage participants to pass on what they have learnt, and build this into strategies, programmes and plans for the benefit of the organisations where they perform their duties and beyond.

- Make all training and support materials widely available online after a workshop takes place.

- Incorporate more practical 'hands on' sessions within workshops and training programmes to complement theoretical information.

- When planning workshops, consider diverse approaches such as Open Space Technology or world café to create a strong sense of ownership of the outputs and outcomes.

- Identify ways to better link the multiple existing portals and other information resources that exist at the international and national levels, so that they are more widely available and better integrated, including by enhancing collaboration with multilateral environmental agreements.

- Increase access to online tools through other global and regional portals, including through targeted collaboration through the Clearing-house Mechanism.

- Work together with IPBES on e-learning materials associated with IPBES deliverables.

- Encourage online forums as part of the activities of communities of practice, and in association with other online tools such as e-learning, web portals, etc.

- Encourage more effective networking in the margins of the Convention meetings, for example through side events that are more targeted to sharing needs and solutions around specific topics of interest to developing countries.

- Explore which vehicle(s) could be useful to enhance peer-to-peer exchange once a network is established, bearing in mind that different mechanisms may be applicable to different regions.

- Further promotion of study visits linked to regional and national centres of expertise to enhance peer-to-peer learning.

- Review the existing programme of internships at the Secretariat and explore ways to expand it.

- Fellowships could be made available to individuals with well-established careers but also to early career professionals, as well as individuals from indigenous peoples and local communities.

- Consider updating existing guidance documents or resource materials developed under the Convention and its Protocols or by partners, or provide new ones as needed.

- Increase access to existing resources, including in different languages, for example by enhancing the collaboration with thematic partners and communities of practice.

- Focusing on technical assistance to strengthen the capacities of institutions can make them less reliant on specific individuals.

- Consider planning celebrations and events for international days with associated capacity-building opportunities in mind.

- Explore opportunities to work with communities of practice, thematic partners and centres of expertise at national or regional levels.

- Training and professional development opportunities for in-service practitioners should also be identified, developed and strengthened where needed.

# 6. Monitoring and evaluation – some experiences

This section presents some common practices relating to monitoring and evaluation for capacity-building interventions, and an overview of the use of indicators and baselines in this field. The information presented was gathered from grey literature, through interviews and through the surveys sent by the Secretariat to Parties, other governments, organisations and IPLCs.

Quite apart from the careful planning of capacity-building initiatives, achievement of their outcomes and objectives needs to be monitored over time to improve performance. **Monitoring** involves continuous, systematic observation and checking on activities and their results while work is still in progress, while **evaluation** is an assessment at a point in time, often after the fact, that determines the worth, value, or quality of an activity, project, programme, or policy.[189]

Capacity-building aims for changes in individual behaviour or knowledge and in organisational performance. Monitoring such changes in capacities is often difficult to capture, making it essential to define what to measure and how to do it. For capacity-building interventions to be effective and have long-lasting impacts, the sustainability of the interventions once the project/programme ends is essential, and also needs to be considered from the design stage.[190] The same applies to monitoring, which requires the definition of indicators[191], a baseline and targets that would allow for measuring those changes, and ultimately impact.

Monitoring and evaluation of capacity-building is not only relevant to measuring success after the fact, but also provides important input for improvement of the capacity-building strategy, its components and activities, as it is being implemented. Results should be measured regularly and systematically in order to provide a clear picture of the progress towards achieving (especially long-term) goals, and as a basis for identifying potential failures of the approach which need to be acted upon through an iterative approach and adaptive management.[192]

Monitoring and evaluation can be done for various aspects of capacity-building interventions, and can also take place at different levels. For example, monitoring and evaluation might be done to assess the effectiveness of certain capacity-building modalities or the achievement of outcomes in a project, programme or strategy. It might be done at national or global levels, or for particular themes. Donors usually have their own evaluation frameworks to assess the support that they provide, but even then, it might be done with respect to support for development in general or focusing more specifically on capacity-building.

## 6.1 Some key challenges to measure effectiveness and impact

Not many mechanisms are in place to successfully measure effectiveness and impact of capacity-building interventions. When these mechanisms exist, the information they provide is limited,

[189] Horton, D. 2003. *Evaluating capacity development: experiences from research and development organizations around the world*. IDRC.

[190] Eyben, R. 2011. *'Stuff happens': the risks of a results agenda. Guest post from Rosalind Eyben.* [Online]. [Accessed 11 December 2019]. Available from: https://oxfamblogs.org/fp2p/stuff-happens-the-risks-of-a-results-agenda-guest-post-from-rosalind-eyben/

[191] 2010 Biodiversity Indicators Partnership. 2010. Biodiversity indicators and the 2010 Target: Experiences and lessons learnt from the 2010 Biodiversity Indicators Partnership. Secretariat of the Convention on Biological Diversity, Montréal, Canada. Technical Series No. 53, 196 pages

[192] Buss, I. 2010. *Best Practices in Capacity Building Approaches: Recommendations for the Design of a Long -Term Capacity Building Strategy for the Wind and Solar Sectors by the MEF Working Group.* Berlin, Germany: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH. [Online]. [Accessed 11 December 2019]. Available from: http://ledsgp.org/wp-content/uploads/2015/07/Best-Practices-in-Capacity-Building-Approaches.pdf

making it difficult to grasp the actual contribution of the capacity-development interventions to the achieved outcomes (compared to a range of other factors that could have influenced the process).[193] A large proportion of interviewees indicated the lack of systematic processes for evaluating effectiveness and measuring impact and, as seen in section 4, this is an area with a reported need for development of capacities.

The most commonly used tools, which are often targeted to understanding performance of specific activities rather than overall impact, include:

- **Satisfaction surveys/questionnaires at the end of the capacity-building interventions**: Such tools can work well when the level of response is acceptable. One of the advantages is that the gathered feedback tends to be useful to inform planning of similar activities in the future.

- **Periodic project reporting**: Different organisations and donors use different reporting templates to be submitted at specific time intervals (e.g. mid-term, end of project, etc.). The GEF, for example, has a number of tracking tools to measure progress in achieving the impacts and outcomes established at the portfolio level under the different focal areas, including biodiversity. Some of the questions specifically refer to capacity-building. Furthermore, the importance of external evaluations was emphasised and, relating to this, the key role that evaluators have in undertaking those.

- **Tracking number of downloads of online resources or visit to websites**: While this tool is widely used, it is essentially a proxy, and provides no real information on whether the information has actually been used and how effective it has been in achieving the intended outcome(s). Mostly, it is useful in providing an indication of the geographical areas where the material is being accessed (and downloaded).

- **Annual reports**: Some organisations develop annual reports at the end of the year. While not being a monitoring tool, sometimes the budgets for future activities are defined based on the results presented in those reports. It is however difficult for these to include a thorough assessment of capacity-building interventions. In addition, some regional organisations request member states to produce annual reports including information on activities related to the Convention and its Protocols implemented at the national level.

- **Evaluations of capacity development programmes**: International organisations and donors have mechanisms in place for assessing the effectiveness of funding provided in achieving specific results. In this context, logical frameworks are used for programme planning and monitoring, as part of what is usually known as results-based management. The rationale behind this logic is that there is a linear connection between the provision of support/inputs and the delivery of previously defined outputs, which under certain assumptions, leads to an improvement in performance and the achievement of the defined goals.[194] However, specific monitoring, evaluation and reporting of capacity-building activities (as opposed to the impact of the funding provided) is not possible in the vast majority of cases. A number of

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[193] NIRAS indevelop. 2016. *Joint Scandinavian Evaluation of Support to Capacity Development: Synthesis Report Joint Evaluation - Synthesis report.* [Online]. [Accessed 11 December 2019]. Available from: https://norad.no/contentassets/67a3f6b71b1f41129274dcdbcab2c8df/joint-scandinavian-evaluation-of-support-to-capacity-development.pdf

[194] Vallejo, B. and Wehn, U. 2016. Capacity development evaluation: The challenge of the results agenda and measuring return on investment in the global south. *World Development*. 79, pp.1-13.

evaluations of capacity development programmes give an indication of some of the main challenges that affect monitoring and evaluation, such as:

- o Lack of clarity in terms of the concept of capacity development
- o Result-based management frameworks geared specifically towards capacity-building outputs and outcomes are rarely used.[195] [196] [197] In cases where results frameworks are developed, the following weaknesses were identified: (i) lack of clarity on how outputs led to outcomes and impact; (ii) lack of clarity on how capacity gains could lead to performance and broader development outcomes; (iii) inadequately developed indicators; (iv) lack of specification of the means of verification of the indicators; and (v) failure to identify key assumptions or hypotheses affecting the intervention logic[198]
- o Only a small number of interventions elaborate an explicit theory of change despite a broad recognition of its value.[199]

## 6.2 Elements for effective monitoring and evaluation

In order to be able to monitor and follow-up the effectiveness of outputs and achievement of outcomes, capacity-building interventions require robust monitoring and evaluation, with adequately developed indicators and a thorough understanding of the situation previous to the intervention being implemented (baseline).

An essential element to monitor progress is the identification of indicators for which data is regularly gathered. Different indicators are applicable to the levels at which capacity-building operates (i.e. individual, institutional, and systemic). In addition, indicators can be established for both outputs and intended outcomes.

Concerning the development of long-term strategic framework, interviewees emphasised the importance of a limited number of quantitative and qualitative indicators be considered and used over time. Indicators should be defined to measure impact in the short, medium and long terms. Indicators can be established for specific areas for which there might be available data, such as in relation to Aichi targets 11 and 12, or for resource mobilisation, for example taking into account the experience of BIOFIN. The following are a few examples of the types of indicators regularly used by different stakeholders:

- Number of capacity-building activities carried out

- Number of trained people

- Number of visits and/or downloads of online learning materials

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[195] NIRAS indevelop. 2016. *Joint Scandinavian Evaluation of Support to Capacity Development: Synthesis Report Joint Evaluation - Synthesis report.* [Online]. [Accessed 11 December 2019]. Available from: https://norad.no/contentassets/67a3f6b71b1f41129274dcdbcab2c8df/joint-scandinavian-evaluation-of-support-to-capacity-development.pdf

[196] Carneiro, G., Boman, K., Woel, B., & Nylund, A. 2015. Support to capacity development: Identifying good practice in Swedish development cooperation. *Sida.* [Online]. [Accessed 11 December 2019]. Available from: www.Sida.se/publications

[197] Eyben, R. 2011. *'Stuff happens': the risks of a results agenda. Guest post from Rosalind Eyben.* [Online]. [Accessed 11 December 2019]. Available from: https://oxfamblogs.org/fp2p/stuff-happens-the-risks-of-a-results-agenda-guest-post-from-rosalind-eyben/

[198] NIRAS indevelop. 2016. *Joint Scandinavian Evaluation of Support to Capacity Development: Synthesis Report Joint Evaluation - Synthesis report.* [Online]. [Accessed 11 December 2019]. Available from: https://norad.no/contentassets/67a3f6b71b1f41129274dcdbcab2c8df/joint-scandinavian-evaluation-of-support-to-capacity-development.pdf

[199] Ibid.

- Number of participants whose role on the ground relates directly to the thematic focus of the capacity-building intervention

- For webinars: number of people that were actively online; number of people that were viewing but not actively engaged

- For MOOCS: percentage of courses that were completed

- For taxonomy: Number of records of species in a global database before and after the capacity-building intervention

- For ABS: number of applications for access to genetic resources/associated traditional knowledge, number of payments received, number of signed mutually agreed terms

The problem with such indicators is that they are primarily focused on what has happened at a specific point in time, or record participation. This says little about whether capacity has been actually increased, and little about benefits or sustainability in the longer term. Some other areas for which indicators could be considered include the following, which take a longer-term view, and relate more to potential ongoing intent and impact:

- Number of people trained by a trainer who has done the "train the trainers" course

- Number of people using guidelines on an ongoing basis

- Support provided by regional partners each year

- Existence of capacity-building plan/programme/strategy at the national level

- Number of government officials specialised in evaluation of a specific dimension relating to biodiversity and ecosystem services

- Degree of involvement of public and private actors in the development and/or implementation of globally agreed goals/targets

The bottom line is that indicators need to be identified or developed as a basis for tacking what the strategic framework aims to achieve, whether this is done in terms of outputs or outcomes. It is therefore premature to identify exactly which indicators should be used at this stage.

Despite the importance of the subject, the establishment of baselines for measuring impact of capacity-building is an area that is undeveloped. Baselines should be established through an assessment of the existing capacities and gaps. In many cases, pre capacity-building activity surveys are carried out (sometimes as a donor requirement) but the results are not necessarily monitored over time.

According to information gathered through interviews, most of the interviewees indicated some caveats relating to the establishment of a global baseline for capacity-building. This is mostly due to the wide variety of countries and capacities, which would make the development of a global baseline challenging. Furthermore, depending on at what level progress will be tracked, some suggested that it could be pilot tested for example for a specific thematic area (e.g. species). However, overall, a large number of interviewees suggested not investing resources in the development of a baseline at the global level and, instead, consider the establishment of baselines on a country-by-country or case-by-case basis.

## 6.3 Key recommendations relating to monitoring and evaluation

Building on the information above, the following key recommendations are highlighted:

- **Build monitoring and evaluation into capacity-building interventions since the design stage**. There is a need to assess the effectiveness of capacity-building interventions and better understand their impact. For this, a robust monitoring mechanism is essential.

- **Consider the development of a theory of change in which the capacity-building interventions and programmes are embedded**. The use of logical frameworks can help in this regard.

- **Try to ensure that development of indicators is informed by the following key dimensions** covered in the literature:

  o Identify the purpose of the capacity-building intervention, clearly responding to the question "whose capacities", and "capacities to do what?"

  o Clear understanding of the assumptions about the nature and source of the problem to be solved, the means to be employed, the timeliness of the intervention, the available support, and the nature of the desired outcomes to be achieved

  o Monitoring needs to happen at the national level, but also at the regional and global levels, using a quantitative approach combined with a qualitative evaluation. Monitoring and evaluation should allow for accurate information on the actual impact of capacity-building at individual and institutional levels

  o Identify indicators through a participatory process. Monitoring and evaluation needs to be done in a participatory manner, involving national/local actors to promote their learning and enhance the ownership of the processes being implemented[200][201]

  o Combine quantitative and qualitative indicators and, to the extent possible, indicators should be disaggregated to acknowledge and address needs of specific groups (e.g. women, indigenous peoples and local communities, etc.)

  o Identify indicators that can be sustainably delivered, and which clearly demonstrate progress (or lack of it) towards desired outputs and/or outcomes.

- **Use baselines to help inform the development of objectives and indicators of capacity-building interventions**. They should be established through an assessment of the existing capacities and gaps.

- **Include a sustainability plan in capacity-building interventions**. Capacity-building is a long-term process and, therefore, consideration of the sustainability of the planned interventions is fundamental to achieve long-lasting outcomes. For example, a training of trainers programme should have a plan on carrying it forward to ensure a multiplier effect of the capacity-building over a long period of time. An important aspect for longer term impacts relates to the need to consider ways for providing continuity of the capacity-building process in beneficiary countries/organisations.[202] Therefore, exit strategies should be

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[200] FAO Secretariat. 2019. *FAO Capacity Development. Monitoring capacity development.* [Online]. [Accessed 11 December 2019]. Available from: http://www.fao.org/capacity-development/resources/practical-tools/monitor-capacity-development/en/

[201] UNDP. 2009. *Handbook on planning, monitoring and evaluating for development results.* New York: UNDP. [Online]. [Accessed 11 December 2019]. Available from: http://web.undp.org/evaluation/handbook/documents/english/pme-handbook.pdf

[202] Global Environment Facility Independent Evaluation Office (GEF IEO). 2018. *Biodiversity Focal Area Study, Evaluation Report No. 132.* Washington, DC: The Independent Evaluation Office (IEO) of the Global Environment Facility (GEF). [Online]. [Accessed 11 December 2019]. Available from: http://www.gefieo.org/sites/default/files/ieo/evaluations/files/biodiversity-study-2017_0.pdf

developed collaboratively between the donor and the recipient, eventually including post-project obligations.[203]

- **Consider ongoing review over time** to try to assess whether a capacity-building intervention has longer term impact in addition to the immediate results and impacts which are more easily recognised

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[203] Carneiro, G., Boman, K., Woel, B., & Nylund, A. 2015. Support to capacity development: Identifying good practice in Swedish development cooperation. *Sida.* [Online]. [Accessed 11 December 2019]. Available from: www.Sida.se/publications

# 7. Challenges to be addressed in the future

Parties have consistently reinforced the importance for the means of implementation to be adequately addressed in the context of the development of the post-2020 global biodiversity framework, and capacity-building is at the cornerstone of this debate. This section captures some of the key challenges to be addressed in the future in this context.

Five regional consultations were convened in early 2019 to share initial ideas and perspectives, and to open a dialogue on the scope and content of the post-2020 global biodiversity framework. As part of them, Parties identified some key limitations to capacity-building efforts over the past decade and shared some ideas of areas for improvement. Challenges and limitations have also been identified through the interviews and in the surveys developed by the Secretariat. Addressing the identified challenges should facilitate implementation of the post-2020 global biodiversity framework and, ultimately, support delivery of positive biodiversity outcomes at national and global levels.

## 7.1 Challenges and limitations

While the following does not intend to be an exhaustive list, it aims to provide an overview of the wide breath of challenges and limitations that have been identified during the development of the study, as well as in the consultations referred to above. Challenges and limitations include:

- **Lack of common understanding of the meaning and scope of capacity-building**. There are varying views regarding the meaning and scope of the term capacity-building (in practice, sometimes it is equated to training), creating confusion among donors, capacity-building providers and recipients.

- **Despite capacity-building being a long-term process, heavy reliance on external funding does not allow for long-term planning**. Capacity-building is a long-term process, requiring sustained financial and technical support. However, in many cases, capacity-building interventions are designed on a project basis which can sometimes make capacity-building initiatives end prematurely when external or project funding comes to an end.

- **Lack of strategic approach at the national level**. Few countries appear to have a comprehensive national capacity-building plan or strategy, which leads to concerns that capacity-building activities will not be developed in a structured way that meets priority needs. Frequently, governments use the funds earmarked for capacity-building without a defined strategy, assessed need or clear desired outcomes.

- **Lack of consideration of the needs and differences within and between regions** has been indicated as one of the problems affecting the approach currently used for planning and implementing capacity-building from the global level.

- **Limited focus on capacity-building at the institutional and systemic levels**. In general, capacity-building interventions are focused on developing capacities at the individual level, with limited focus at the institutional and systemic levels. In addition, it appears that developing functional capacities has been neglected compared to the development of technical capacities.

- **Excessive reliance on projects for delivery of capacity-building outcomes**. Often, capacity-building objectives and activities are tagged on to different projects rather than implemented as part of a coherent capacity-building programme or strategy. This can give an unbalanced effect to capacity-building, focusing it on what resources are available, rather than on what is needed.

- **Strong reliance on external consultants with insufficient knowledge of local circumstances where capacities are to be built**. Very often external consultants are brought in to develop and design projects, which can be a weakness of the system. Such consultants may be very good, but they may also lack knowledge on the particular circumstances of the country in which they are working. This can also reduce opportunities for consultants and organisations based in the regions.

- **Lack of country ownership**. A number of capacity-building initiatives, for example in Africa, are donor-driven and not fully owned by the concerned government and target audiences, therefore not reflecting the priorities of the relevant country.

- **Lack of systematic mechanisms to capture capacity-building needs**. While some needs assessments and stocktaking exercises are carried out during the design of specific projects and activities, such assessments are generally not systematised and analysed at the organisational or systemic levels. Related to this, it is generally difficult to identify capacity-building needs based on national biodiversity strategies and action plans or national reports.

- **High staff turnover, therefore losing institutional memory and expertise**. This was raised as a concern in a large number of interviews and survey responses. High staff turnover not only creates gaps in technical knowledge for implementing the Convention and its Protocols, but it also generates discontinuity with respect to partnerships/relationships built by departing individuals.

- **Problems associated with the selection of participants/trainees**. This becomes particularly problematic when the individuals nominated or selected to participate in capacity-building activities are not the ones responsible for the application of the knowledge on the ground.

- **Limited number of languages pre-empts wide outreach and dissemination of capacity-building materials**. This is not only relevant in terms of the languages in which the specific activities are delivered but also the languages in which the material is developed, and is applicable not only at the global level but also nationally in countries with a large number of languages.

- **Lack of adequate mechanisms for monitoring and evaluation**. There are no adequate mechanisms for monitoring and evaluation. Similarly, there is a lack of follow-up for many of the capacity-building activities organised at the global level and it is therefore very difficult to assess their effectiveness and measure the impact of capacity-building. This also makes the implementation of an iterative approach difficult.

All of these are in addition to the challenge of finding the necessary financial resources. Lack of sufficient funding and technical resources to sufficiently address identified capacity-building needs for biodiversity is referred to repeatedly in Convention meetings, and in submissions from Parties and in the interviews.

## 7.2 Key recommendations relating to challenges

The majority of the recommendations and limitations identified above are rather broad, ranging in nature, and apply to many capacity-building activities at most levels. As a result, the best way to address them in the strategic framework may be to consider developing some form of 'guiding principles' or 'suggested good practice' based on them. Therefore, the recommendation is:

- Use identified challenges in delivering capacity-building as a basis for developing **guiding principles for capacity-building interventions** that can be encouraged and applied through a future strategic framework for capacity-building.

# 8. Recommendations for the long-term strategic framework on capacity-building beyond 2020

Drawing on the key findings of the study, a number of recommendations have been identified to develop a more strategic approach towards biodiversity-related capacity-building. This section starts with general or overarching recommendations that come from the study as a whole, and then repeats the recommendations made in each of the earlier sections so that they are brought together in one place.

## 8.1 Overarching recommendations

It is suggested that the long-term strategic framework should:

- Guide the implementation of capacity-building efforts for biodiversity not only for the interventions facilitated by the CBD Secretariat in the context of the Convention and its Protocols, but also biodiversity-related capacity-building promoted and delivered by its partners, including by other Conventions.

- Include a clear and well-defined overarching goal or a limited number of overarching objectives, and be outcome-oriented so that it is clear what it aims to achieve. This will facilitate not only resourcing and delivery, but also monitoring and evaluation.

- Comprise a series of key overarching principles to guide the design and implementation of capacity-building interventions at the global and national levels. The following could be considered:

  o support implementation of the three objectives of the Convention, the Protocols, and the post-2020 global biodiversity framework;

  o seek to promote capacity-building that is demand-driven, in order to ensure strong ownership and commitment to capacity-building interventions and outcomes;

  o seek to promote tailor-made design of capacity-building interventions, recognising that capacity-building does not allow for a "one size fits all" approach; and

  o seek to promote cooperation, collaboration and coherence of capacity-building efforts for biodiversity.

- Include a clear definition of the term 'capacity-building', with the aim of clarifying its scope and facilitating the definition of its objectives (while noting that it might be preferable to use the term 'capacity development' to better capture the approaches used).

- Include the basis to develop a robust monitoring and evaluation framework to assess progress towards achieving its outcomes, and/or specify the process for its development. Indicators should be identified as soon as practicable.

- Provide an overarching strategic document to guide the implementation of biodiversity-related capacity-building, with more detailed action plans developed at a later stage (for example for prioritised thematic areas).

In addition, the following general recommendations might also be considered:

- Use challenges identified in delivering capacity-building as a basis for developing further guiding principles for capacity-building interventions, that can be encouraged and applied through a future strategic framework for capacity-building.

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- It is suggested that the strategic framework increases focus on capacity-building at the institutional and systemic levels rather than at the individual level, in order to achieve more sustained impacts.

- Development of a theory of change would facilitate the identification of outcomes and clear objectives. A clear definition of the intended outcomes of the capacity-building intervention should be the first step and would provide an indication of the possible approaches and modalities that would enable their achievement.

- A mid-term review of the outcomes and mechanisms included in the strategic framework should be carried out to provide the opportunity to make adjustments as needed and reflect the priorities resulting from the implementation of the post-2020 global biodiversity framework.

- Recognising that current baselines and indicators may be inadequate for assessing the long-term impact of capacity-building, it may be valuable to work with Parties and others to find better ways to assess impact over time.

## 8.2 Specific recommendations

The specific recommendations below, which result from the analysis undertaken, provide an overview of some key considerations that should be made concerning capacity-building at different levels. Some would be applicable at the global and national levels while others would be more suitable for national and/or subnational levels.

### Capacity-building landscape

Given the broad range of organisations, initiatives and networks involved in biodiversity-related capacity-building at all levels, it is important to focus not on the organisations themselves, but on the mechanisms that the Convention might use in order to best draw on their expertise. The following suggestions are therefore made:

- **Consider where and how to place effort in using the existing capacity-building landscape**, and in particular identify:
  - o what activities the Secretariat should carry out itself, whether from the regular budget of through voluntary funding
  - o what activities the COP or Secretariat would explicitly task or invite others to do on its behalf (or recognise activities that are already being planned or undertaken)
  - o what activities the COP or the Secretariat would otherwise promote, facilitate and/or catalyse, whether directly or indirectly, for example by identifying priorities

- **Enhance coordination and collaboration with other multilateral environmental agreements and intergovernmental processes relating to biodiversity and ecosystem services**, for example by:
  - o leveraging existing arrangements, such as the Biodiversity Liaison Group, to address and coordinate issues related to capacity-building with a view to exchanging experiences and coordinating actions
  - o establishing shared priorities at the programmatic level that would build a stronger case when fundraising for development and implementation of capacity-building interventions and would create higher impact

- **Consider how to improve access to information relating to the extent of the investment for capacity-building** as opposed to other project purposes. This would contribute to a better

understanding of the capacity-building landscape.

- **Consider how to best extend and increase access to the online resources** that the CBD Secretariat is already making available, working closely with partner organisations with experience in different issues, and developing working relationships with other portals and virtual colleges/libraries.

- **Consider the establishment of a working group on biodiversity-related capacity-building** (global coordination mechanism), led by the CBD Secretariat, to increase the awareness of capacity-building needs and opportunities, and to facilitate, monitor and evaluate capacity-building activities for biodiversity.

- **Consider the establishment of some form of ongoing relationship amongst donors on biodiversity-related capacity-building**, linking back to regional, national and community partnerships.

- Encourage the establishment of some form of **process at the national level to coordinate capacity-building efforts** so as to increase coordination, and increase focus on sustainable outcomes.

Note that these are in addition to the work that the CBD COP regularly does to invite the GEF to support priorities identified by the COP. It is already assumed that the COP will request GEF support in implementing the post-2020 global biodiversity framework.

## Capacity-building approaches

The CBD Secretariat should consider building upon existing partnerships to facilitate and promote the development and implementation of a strategic approach to capacity-building which addresses the following:

- Build on existing partnerships to develop a well networked group of technical assistance providers to address the Parties' technical and scientific needs on a wide range of issues

- Promote a regional approach towards delivery of capacity-building, drawing on existing partnerships and creating new ones as appropriate. For this purpose, build on existing regional support networks or hubs where possible to avoid duplication of efforts and identify regional organisations to coordinate relevant capacity-building initiatives

- Actively promote peer-to-peer learning through a range of approaches and modalities, including facilitating South-South and triangular cooperation

- Keep under consideration that different target audiences may benefit from different combinations of the capacity-building interventions

- Consider the use of combined approaches and a variety of modalities in order to increase the effectiveness of capacity-building

- Promote the train-the-trainers approach as a means to a more strategic development of capacities that would enable reaching a more targeted audience at the domestic level, thereby maximising the impacts in the long run

- Foster bottom-up approaches for capacity-building, such as through participatory assessments, to empower communities and ensure greater motivation for engagement, triggering their motivation for achievement of positive biodiversity outcomes

- Build on existing communities of practice where this is possible in order to benefit from existing communities and resources, and to avoid the risk of duplicating effort. When

existing ones do not exist or are not fit-for-purpose, actively promote communities of practice, including building new communities of practice where this is necessary and appropriate, taking into account the specific circumstances in the regions/countries where the peer-to-peer learning is to be fostered so to select the most appropriate modalities for its delivery

- Put in place approaches for assessing the impact of different capacity-building approaches and modalities, as a basis for adjusting future implementation.

In addition, the recommendations indicated in Table 2 are proposed for specific capacity-building approaches:

- Identify regional organisations to coordinate relevant capacity-building initiatives

- Build on the wide range of partnerships addressing specific themes or cross-cutting issues related to supporting the implementation of the Convention and its Protocols

- Enhance technical and scientific cooperation, including through South-South and triangular cooperation, as a means to foster peer-to-peer learning

- Expand the membership of the Consortium of Scientific Partners as a means to promote South-South cooperation and support, in particular when promoting technical and scientific cooperation within regions

- Improve the capacity of developing countries to absorb and adapt technology and skills to meet their specific needs

- Seek to develop capacity-building interventions that actively foster peer-to-peer learning so as to build relationships amongst practitioners

- When planning capacity-building interventions, consider how different capacity-building modalities can be combined in order to increase effectiveness

- When using blended learning, take into consideration the target audience of the capacity-building interventions to make sure the right combinations of modalities are chosen

- Explore ways to assist and stimulate community-based initiatives.

## Capacity-building modalities

- Selecting appropriate modalities requires an understanding of the interdependencies between individual, institutional and systemic levels in the specific context where the capacity-building interventions are being implemented.

- Recognise and acknowledge the value of cross-linkages between different modalities, with a view to multiplying and reinforcing the effects of the planned interventions.

- Focus efforts on working with national and regional experts rather than international consultants with limited understanding of the context where capacities are to be built.

- Ensure concrete follow-up actions are agreed prior to the finalisation of the specific interventions.

- Consider the use of workshops in combination with other modalities such as e-learning, designing the blend in the most cost-efficient way to achieve the desired objectives and reinforce learning as part of a programme of activities.

- Identify ways to provide better access to online tools, so that they are more widely available and better integrated.

- Invest effort in improving the Biodiversity e-Learning Platform so that it is a centralised platform to enable access to different tools and knowledge materials to partners and countries working on capacity-building for biodiversity.

- Explore opportunities to work with communities of practice and centres of expertise, including at national and regional levels, to increase focussed training opportunities that can be built upon with peer-to-peer learning.

- Consider tools, experiences and lessons learned in other multilateral environmental agreements or organisations such as CITES or IPBES (e.g. CITES Virtual College or IPBES fellowship programme) considering potential suitability to the programmes and activities under the Convention and its Protocols.

- Make sure individuals and institutions in beneficiary countries/institutions demonstrate commitment for long-term partnerships; or consider alternative options for targeting the interventions when this is not the case.

- Consider opportunities for the CBD Secretariat to engage with educational institutions such as UNESCO and UNU and their networks in strengthening the opportunities for education for sustainable development

- Put in place approaches for assessing the impact of different capacity-building approaches and modalities, as a basis for adjusting future implementation.

In addition to the recommendations indicated above, the following from Table 3 are proposed for specific capacity-building modalities:

- Provide follow-up support after workshops and create networks for participants to continue sharing experiences.

- Encourage participants to pass on what they have learnt, and build this into strategies, programmes and plans for the benefit of the organisations where they perform their duties and beyond.

- Make all training and support materials widely available online after a workshop takes place.

- Incorporate more practical 'hands on' sessions within workshops and training programmes to complement theoretical information.

- When planning workshops, consider diverse approaches such as Open Space Technology or world café to create a strong sense of ownership of the outputs and outcomes of the meeting.

- Identify ways to better link the multiple existing portals and other information resources that exist at the international and national levels, so that they are more widely available and better integrated, including by enhancing collaboration with multilateral environmental agreements.

- Increase access to online tools through other global and regional portals, including through targeted collaboration through the Clearing-house Mechanism.

- Work together IPBES on e-learning materials associated with IPBES deliverables.

- Encourage online forums as part of the activities of communities of practice, and in association with other online tools such as e-learning, web portals, etc.

- Encourage more effective networking in the margins of the Convention meetings, for example through side events that are more targeted to sharing needs and solutions around specific topics of interest to developing countries.

- Explore which vehicle(s) could be useful to enhance peer-to-peer exchange once a network is established, bearing in mind that different mechanisms may be applicable to different regions.

- Further promotion of study visits linked to regional and national centres of expertise to enhance peer-to-peer learning.

- Review the existing programme of internships at the Secretariat and explore ways to expand it.

- Fellowships could be made available to individuals with well-established careers but also to early career professionals, as well as individuals from indigenous peoples and local communities.

- Consider updating existing guidance documents or resource materials developed under the Convention and its Protocols or by partners, or provide new ones as needed.

- Increase access to existing resources, including in different languages, for example by enhancing the collaboration with thematic partners and communities of practice.

- Focusing on technical assistance to strengthen the capacities of institutions can make them less reliant on specific individuals.

- Consider planning celebrations and events for international days with associated capacity-building opportunities in mind.

- Explore opportunities to work with communities of practice, thematic partners and centres of expertise at national or regional levels.

- Training and professional development opportunities for in-service practitioners should also be identified, developed and strengthened where needed.

## Monitoring and evaluation

- **Build monitoring and evaluation into capacity-building interventions since the design stage**. There is a need to assess the effectiveness of capacity-building interventions and better understand their impact. For this, a robust monitoring mechanism is essential.

- **Consider the development of a theory of change in which the capacity-building interventions and programmes are embedded**. The use of logical frameworks can help in this regard

- **Try to ensure that development of indicators is informed by the following key dimensions** covered in the literature:

  o Identify the purpose of the capacity-building intervention, clearly responding to the question "whose capacities", and "capacities to do what?"

  o Clear understanding of the assumptions about the nature and source of the problem to be solved, the means to be employed, the timeliness of the intervention, the available support, and the nature of the desired outcomes to be achieved

  o Monitoring needs to happen at the national level, but also at the regional and global levels, using a quantitative approach combined with a qualitative evaluation. Monitoring

and evaluation should allow for accurate information on the actual impact of capacity-building at individual and institutional levels

- o Identify indicators through a participatory process. Monitoring and evaluation needs to be done in a participatory manner, involving national/local actors to promote their learning and enhance the ownership of the processes being implemented[204] [205]

- o Combine quantitative and qualitative indicators and, to the extent possible, indicators should be disaggregated to acknowledge and address needs of specific groups (e.g. women, indigenous peoples and local communities, etc.)

- o Identify indicators that can be sustainably delivered, and which clearly demonstrate progress (or lack of it) towards desired outputs and/or outcomes

- **Use baselines to help inform the development of objectives and indicators of capacity-building interventions**. They should be established through an assessment of the existing capacities and gaps.

- **Include a sustainability plan in capacity-building interventions**. Capacity-building is a long-term process and, therefore, consideration of the sustainability of the planned interventions is fundamental to achieve long-lasting outcomes. For example, a training-of-trainers programme should have a plan on carrying it forward to ensure a multiplier effect of the capacity-building over a long period of time. An important aspect for longer term impacts relates to the need to consider ways for providing continuity of the capacity-building process in beneficiary countries/organisations.[206] Therefore, exit strategies should be developed collaboratively between the donor and the recipient, eventually including post-project obligations.[207]

- **Consider ongoing review over time** to try to assess whether a capacity-building intervention has longer term impact in addition to the immediate results and impacts which are more easily recognised

## Addressing identified challenges

- Use identified challenges in delivering capacity-building as a basis for developing **guiding principles for capacity-building interventions** that can be encouraged and applied through a future strategic framework for capacity-building.

[204] FAO Secretariat. 2019. *FAO Capacity Development. Monitoring capacity development.* [Online]. [Accessed 11 December 2019]. Available from: http://www.fao.org/capacity-development/resources/practical-tools/monitor-capacity-development/en/

[205] UNDP. 2009. *Handbook on planning, monitoring and evaluating for development results*. New York: UNDP. [Online]. [Accessed 11 December 2019]. Available from: http://web.undp.org/evaluation/handbook/documents/english/pme-handbook.pdf

[206] Global Environment Facility Independent Evaluation Office (GEF IEO). 2018. *Biodiversity Focal Area Study, Evaluation Report No. 132.* Washington, DC: The Independent Evaluation Office (IEO) of the Global Environment Facility (GEF). [Online]. [Accessed 11 December 2019]. Available from: http://www.gefieo.org/sites/default/files/ieo/evaluations/files/biodiversity-study-2017_0.pdf

[207] Carneiro, G., Boman, K., Woel, B., & Nylund, A. 2015. Support to capacity development: Identifying good practice in Swedish development cooperation. *Sida.* [Online]. [Accessed 11 December 2019]. Available from: www.Sida.se/publications

# Annex 1. Terms of reference for the study

**Terms of reference for a study to provide an information base for the preparation of the long-term strategic framework for capacity-building beyond 2020**

**A.      Scope of the study and the process for preparing the framework**

1.      The study will encompass the following tasks:

(a)      Take stock of the status of capacity development related to the implementation of the Convention and its Protocols, including major existing capacity development initiatives/-programmes, tools, networks and partnerships;

(b)      Identify and map the main providers of capacity-building support for the implementation of the Convention and its Protocols in various regions, including their competencies and strengths;

(c)      Review the emerging experiences and lessons learned with the various capacity development delivery modalities and approaches used and assess their relative effectiveness and limitations;

(d)      Identify the Parties' main capacity development and technological needs and gaps, including at the regional level;

(e)      Analyse what has been done and the types of capacity development activities that have contributed to advancements made;

(f)      Make recommendations on the general direction for the long-term framework for capacity-building beyond 2020 and the priority capacity-building actions to be taken to achieve the goals and targets of the follow-up to the Strategic Plan for Biodiversity 2011-2020.

**B.      Methodology and sources of information**

2.      The study will use the following data collection methods and will draw on a range of data sources:

(a)      Desk review of relevant documents, including:

(i)      The sixth national reports for the Convention;

(ii)      Outcomes of the first Assessment and Review of the Nagoya Protocol;

(iii)      The second (as baseline) and fourth national reports for the Cartagena Protocol on Biosafety;

(iv)      The second edition of the *Local Biodiversity Outlooks*;

(v)      National capacity-building strategies and action plans;[208]

(vi)      Reports of the evaluations of the strategic frameworks for capacity-building of the Nagoya Protocol and the Cartagena Protocol;

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[208] As noted in CBD/SBI/2/2/Add.1, paragraph 12, 18 out of the 154 revised national biodiversity strategies and action plans submitted to the Secretariat include a national capacity development plan.

(vii)    Report of the independent evaluation of the impacts, outcomes and effectiveness of the short-term action plan (2017-2020) to enhance and support capacity-building for the implementation of the Convention and its Protocols;

(viii)    Reports of relevant studies, surveys and needs assessments conducted by relevant organizations;[209]

(ix)    Evaluation reports of relevant capacity-building projects;

(x)    Reports on assessments of capacity-building under other international treaties regarding biodiversity;

(xi)    Regional assessments by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

(b)    Survey of Parties and key partners, including indigenous peoples and local communities, and women's and youth organizations, to identify, among other things, their priority capacity needs and required capacities over the next decade as well as potential offers of assistance and other capacity development opportunities, tools and services;

(c)    Analysis of capacity-building needs and priorities and other relevant information made available through the clearing-house mechanism and the clearing-houses of the Protocols;

(d)    Interviews with a representative sample of stakeholders, including staff of the Secretariat of the Convention on Biological Diversity and representatives of Parties, indigenous peoples and local communities, partner organizations and other actors from different regions, including technical and scientific institutions and women's and youth organizations. The interviewees will be invited to share, inter alia, information and views regarding the observed strengths and weaknesses of various capacity development approaches and delivery modalities under difference circumstances, relevant experiences and lessons learned, examples of good practices that could be leveraged as well as views on possible drivers of transformational change for future capacity development.

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[209] Including the survey of national capacity development related to the implementation of biodiversity-related conventions conducted by the International Union for Conservation of Nature on behalf of the United Nations Environment Programme and the United Nations Development Programme report based on the analysis of over 140 national biodiversity strategies and action plans and the regional assessments carried out by Intergovernmental Science/Policy Platform on Biodiversity and Ecosystem Services.

# Annex 2. Guiding questions used in semi-structured interviews

**General questions**

1. In general, what has been your experience with capacity-building for biodiversity - what has worked, what has not work well, and what would you do differently?
2. What types of capacity-building approaches and methods are most commonly used in your country/organisation, e.g. trainings, e-learning, development of resource materials/tools, technical assistance/advice, organisational development, networking, etc.)?
   a. Which of these have been most effective and why?
   b. Which of these have been least effective and why?
   c. Are these approaches part of national programs or projects or both? How are they designed and funded?
   d. What good practices from your capacity-building initiatives could be useful to others?
3. How does your government/organisation **assess the effectiveness of capacity-building initiatives**? What tools and mechanisms have you used? Which ones have been most effective?
4. How does your government/organisation **measure the impact of your capacity-building interventions** over time? What tools or mechanisms do you use?
5. How does your government/organisation choose or establish a baseline against which to measure the impact of capacity-building interventions? How should the baseline for measuring the impact of the long-term strategic framework for capacity-building beyond 2020 be established?
6. Should the long-term strategic framework for capacity-building beyond 2020 be an overarching reference document with different strategic elements and principles to guide capacity-building efforts of Parties and organisations, or should it include specific action plans for each of the main themes or targets of the post-2020 global biodiversity framework?
7. What elements do you think should be included in a long-term strategic framework for capacity-building beyond 2020?
8. [For MEAs and other intergovernmental organisations] In what areas do you see potential opportunities for cooperation with biodiversity-related conventions or organisations in the context of the post 2020 global biodiversity framework?
9. [For MEAs and other intergovernmental organisations] Based on the experience of your work, what are the most important goals/targets on capacity-building and technical and scientific cooperation that could be incorporated into or built on in the post-2020 global biodiversity framework?
10. Would you accept being contacted again in the future should there be areas on which more information may be required?

**Additional general questions (time permitting)**

I. How could technical and scientific cooperation (including technology transfer) be enhanced as part of capacity-building?
II. What are the main constraints and challenges to capacity-building in your country/organisation, and how have they been overcome? What are the constraints for sustaining capacity over time?
III. Has your government/organisation made deliberate efforts to build the capacity of institutions - as opposed to individuals - and if so what specific actions have you taken?
IV. What types or examples of indicators do you think would be most useful in measuring the impact of capacity-building interventions of a future long-term strategic framework for capacity-building beyond 2020?

# Annex 3. Additional information relating to section 3

The table below (Table 4) presents a few examples of key organizations and programmes contributing to biodiversity-related capacity-building. Thematic coverage for these and other organizations is included in additional tables presented in the tables below.

| Table 4. Examples of types of organizations and programmes contributing to capacity-building[210] | |
|---|---|
| UN bodies | o **United Nations Environment Programme** (UNEP) provides leadership and encourages partnership in caring for the environment. |
| | o **United Nations Educational, Scientific and Cultural Organization** (UNESCO) has a primary focus not only on education, science and culture, but also on information and communication. |
| | o **Food and Agriculture Organization of the United Nations** (FAO) aims to improve levels of nutrition, increase agricultural productivity, better lives of rural populations and contribute to economic growth. |
| | o **United Nations Development Programme** (UNDP) is the UN's global development network, advocating for change and connecting countries to knowledge, experience and resources to help people improve their lives. |
| | o **United Nations University-Institute of Advanced Studies** (UNU-IAS) contributes, through collaborative research and education, to efforts to resolve the pressing global problems that are the concern of the United Nations, its Peoples and Member States, including biodiversity loss. |
| | o **United Nations Division on Ocean Affairs and Law of the Sea** (UNDOALOS) provides opportunities for education in ocean affairs and the law of the sea to Government officials and other mid-level professionals from developing States, to support the formulation of comprehensive ocean policies. |
| | o **Intergovernmental Oceanographic Commission of UNESCO** (IOC-UNESCO) provides various training courses and modules on marine spatial planning, as well as various training courses through the Ocean Teacher Global Academy (OTGA). |
| | o The **BioTrade Initiative of UNCTAD** works with governments, businesses and other international organizations to increase legal and sustainable trade with biodiversity-based and biodiversity friendly sourced products and services according to the BioTrade Principles and Criteria. |
| Multilateral and bilateral development assistance organizations | o **Global Environment Facility** (GEF), financial mechanism of the Convention, provides incremental costs to help countries ensure global environmental benefits with respect to biodiversity and other environmental issues. |
| | o Bilateral development assistance organizations work together through the **OECD Development Assistance Committee**, leading to the potential for a more coordinated and focused approach to aid delivery. |
| | o **World Bank** has a primary focus on poverty alleviation, helping people help themselves and their environment by providing resources, sharing knowledge, building capacity and forging public and private sector partnerships. |
| Key intergovernmental programmes | o **Global Biodiversity Information Facility** (GBIF) enables free and open access to biodiversity data online to support, *inter alia*, scientific research and decision- |

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[210] Adapted from Scoping paper - Capacity building for IPBES: Needs and options (2011)

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| | making processes, and includes strong elements of capacity building including access to tools, guidance, data and support. |
| | o The *Group on Earth Observations* (GEO) is coordinating efforts to build a Global Earth Observation System of Systems (GEOSS), including strengthening the ability of countries to use Earth observation data and products and to contribute to GEOSS. |
| | o *GEO Biodiversity Observation Network* (GEO-BON) which includes capacity building into its activities, both to support organizations and countries in contributing data that they hold, and increasing the ability to use observation data. |
| | o *Ocean Biogeographic Information Systems (OBIS)* carries out activities to increase institutional and professional capacity in marine biodiversity and ecosystem data collection, management, analysis and reporting tools, as part of IOC's Ocean Teacher Global Academy (OTGA) |
| | o *International Centre for Genetic Engineering and Biotechnology* (ICGEB) disseminates information related to biosafety, bioethics and other issues. Its work involves advanced experimental research in its own laboratories across the globe. |
| **Regional environmental organizations and programmes** | o *Inter-American Biodiversity Information Network* (IABIN) is concerned with creation and promotion of infrastructure for managing and exchanging biodiversity information, and addresses training, network development, and provision of tools and guidance. |
| | o *ASEAN Centre for Biodiversity* (ACB) is an intergovernmental centre facilitating cooperation and coordination among ASEAN member states, including coordination of information sharing, and facilitating capacity building and technology transfer. |
| | o *European Environment Agency* (EEA) and its European Environment Information and Observation Network (EIONET) is very active in increasing access to data and information across the European region, and in providing the tools, standards, guidance and networks necessary for improving both access and use. |
| | o *Regional seas organizations* in different parts of the world carry out different modes of capacity building including, for example, training in Environmental Impact Assessment; management of coastal lagoons, estuaries and mangrove ecosystems; control of industrial, agricultural and domestic wastes; formulation of contingency plans for dealing with pollution emergencies; etc. |
| | o *Regional fishery bodies* in different parts of the world carry out different modes of capacity-building and training in the research and management related to fisheries and aquaculture |
| **Scientific networks and programmes** | o *International Science Council* (former International Council for Science – ICSU) provides international guidance and leadership to scientific organizations, and in particular through its members which include the national academies of sciences in many countries. |
| | o *International Human Dimensions Programme on Global Environmental Change* (IHDP) is concerned with understanding and addressing the effects of individuals and societies on global environmental change, and how such global changes affect humans. |
| **Consortium of CGIAR Centres** | The Consultative Group on International Agricultural Research (CGIAR) is a global partnership supporting 15 research centres focused on reducing poverty and hunger, improving human health and nutrition, and enhancing ecosystem resilience through |

|  | international agricultural research, partnership and leadership. A key part of their focus is increasing access to the knowledge necessary to support decision making. |
| --- | --- |
|  | o *Centre for International Forestry Research* carries out policy relevant research on forests, with a focus on developing country regions, and helping policy makers and practitioners to improve forest management and address the needs of people whose livelihoods depend on forests |
|  | o *Bioversity International* carries out research on agricultural biodiversity, and provides policy information and analysis to improve the decision making necessary for helping to ensure that agricultural biodiversity delivers sustainable solutions. |
|  | o *World Agroforestry Centre* (ICRAF) |
|  | o *WorldFish Centre* carries out research-for-development with the aim of making small scale fisheries more resilient and productive, and supporting the adoption of sustainable aquaculture that specifically benefits the poor. |
| **Networks of like-minded organizations working on specific capacity building needs** | For a range of specific issues, like-minded organizations are already working in partnerships or less formal associations to deliver on specific capacity needs in a more coordinated manner. |
|  | o The *Biodiversity Indicators Partnership* is working to increase access to data and information, to provide the necessary guidance for work on indicators, and is supporting workshops at the national level |
|  | o Building on experience with the Millennium Ecosystem Assessment, a number of organizations are working together to promote and support the *network of sub-global assessments*, with a particular focus on sharing experiences and building capacity for ecosystem assessments at local-regional scales. |
| **International non-governmental organizations** | There is a range of internationally active NGOs with substantial capacity-building experience in particular areas of work on biodiversity, that contribute with information and experience, and in some cases their own networks of experts. |
|  | o *BirdLife International* works with national partner organizations in country to, *inter alia*, use evidence based on the status and distribution of birds in order to protect sites of importance for biodiversity, sharing experience in doing so within the network. |
|  | o *International Union for Conservation of Nature (IUCN)* has a range of country and organisation members, and helps to identify pragmatic solutions to the most pressing environment and development challenges, IUCN has a wide range of activities relevant to supporting the objectives of the Convention and its Protocols and building capacity for more effective use of science in decisions making. It has a number of specific commissions and specialist groups with thematic foci (such as the Species Specialist Group and World Commission on Protected Areas). |
|  | o The *World Resources Institute* is an environmental think tank working with governments, companies and civil society to help them identify and build solutions to urgent environmental challenges. |
|  | o *NatureServe* and its network of natural heritage programmes are a major source of information about species and ecosystems, and substantially involved in building capacity to manage and use data and information |
| **Other internationally active organizations and networks working** | Various other organizations and networks play specific roles in using science to inform policy makers, and in doing so each addresses one or more of the needs identified earlier. These organizations and networks also have experience that can be drawn on in building |

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| to support decision making | capacity at the national level. Examples include:<br><br>  o  *International Council for the Exploration of the Seas* (ICES) coordinates and promotes marine research in the North Atlantic in order to advance the scientific capacity to give advice on human activities affecting, and affected by, marine ecosystems<br><br>  o  *UN Environment Programme World Conservation Monitoring Centre* (UNEP-WCMC) is fairly unique in having a mandate and mission to increase the use of data, information and knowledge in decision making while retaining a non-advocacy position, and in carrying out this role provides guidance, training, and access to information tools, as well as facilitating national workshops and providing experts to support national activities. |

## Examples of capacity building activities by a range of UN organisations in support of the Convention and its Protocols

For two of these (UNEP and UNDP), these activities are extremely wide ranging and broad in scope, covering the full spectrum of those international instruments, frequently on a project basis and responding to country needs directly (often as the implementing agencies for GEF funds). The table does not intend to be exhaustive and, instead, it aims to illustrate the breadth of UN organisations working on dimensions that relate to capacity-building for biodiversity.

| Organisation | Communication, education, awareness | Valuation; ecosystem accounting | Mainstreaming | Incentives | Sustainable consumption, production | Threatened natural habitats | Sustainable fisheries | Sustainable agriculture, aquaculture, forestry | Pollution control | Invasive alien species | Reducing pressures on vulnerable ecosystems | Protected areas | Threatened species | Genetic diversity | Ecosystem services safeguarding | Ecosystem restoration | NBSAPs development/implementation | Traditional knowledge/practices IPLCs | Knowledge, science and technology | Resource mobilisation | Gender mainstreaming | Taxonomy, species identification | National reporting | Plant conservation strategy | Stakeholder engagement/participation | Scenarios, modelling | Spatial planning, analysis | Biosafety: Biosafety national frameworks | Biosafety: Risk assessment/management | Biosafety: Handling, transport, packaging, identification | Biosafety: Liability and redress | Biosafety: Information sharing | ABS: ABS policy/legal frameworks | ABS: Awareness, education, participation | ABS: Establishment mutually agreed terms | ABS: Traditional knowledge; IPLCs | ABS: Compliance, enforcement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FAO | X | | X | | | | X | X | | | | | | X | | | | | | | | | | X | | | | | | | | | X | X | X | | |
| International Fund for Agricultural Development | | | X | | | | X | X | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | |
| IOC/UNESCO | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UNCCD | X | | | | | | | X | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| UNCTAD BioTrade | X | X | X | X | X | | X | X | | | X | | X | X | X | X | X | X | X | X | | | | | X | | | | | | | | X | X | X | X | |
| UNDP | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| UNEP | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| UNEP Regional Seas Conventions | | | | | | | X | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UNESCO | X | | | | | | | | | | X | | | | | | | | | X | | | | | X | | | | | | | | | | | | |
| UNFCCC | | | | | | | | | | | | | | | | | X | X | | | X | | | | X | | | | | | | | | | | | |
| UNIDO | | | | X | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| UNOSSC | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| UNU | X | | | | X | X | X | X | X | | X | | | | X | X | | | X | X | | | | | X | | | | | | | | | | | | |

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## Examples of networks of networks and organisations delivering capacity building for biodiversity

The table below does not intend to be exhaustive and, instead, it aims to illustrate the breadth of the landscape of initiatives and organisations contributing to the work of the Convention and its Protocols. Almost all the identified organisations work globally, although the exact areas in which they work largely depends on individual projects and available funding. There are additionally national and local organisations working in these areas, but consideration of such initiatives was outside the scope of this study.

| Organisation / Initiative | Geographical focus | Communication, education, awareness | Valuation; ecosystem accounting | Mainstreaming | Incentives | Sustainable consumption, production | Threatened natural habitats | Sustainable fisheries | Sustainable agriculture, aquaculture, forestry | Pollution control | Invasive alien species | Reducing pressures vulnerable ecosystems | Protected areas | Threatened species | Genetic diversity | Ecosystem services safeguarding | Ecosystem restoration | NBSAPs development/implementation | Traditional knowledge/practices IPLCs | Knowledge, science and technology | Resource mobilisation | Gender mainstreaming | Taxonomy, species identification | National reporting | Plant conservation strategy | Stakeholder engagement/participation | Scenarios, modelling | Spatial planning, analysis | Biosafety national frameworks | Risk assessment/management | Handling, transport, packaging, identification | Liability and redress | Information sharing | ABS policy/legal frameworks | Access (cont.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Biosafety | | | | | Access | |
| ABS Capacity Development Initiative | Global | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | X |
| ASEAN Center for Biodiversity | Asia and the Pacific | X | X | X | | | X | | | | X | X | X | | | | | | | X | | | | | | | | | | | | | | | X | |
| Biodiversity Indicators Partnership | Global | | | | | | | | | | | | | | | | | | X | X | | | | | | | | | | | | | | | |
| BIOFIN | Global | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Biotech Consortium India Limited | Asia and the Pacific | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | X | X | X | X | | |
| Bioversity International | Global | | X | | | | | | X | | | | | | X | | | | | X | | | | | X | | | | | | | | | X | X |
| Birdlife International | Global | | | | | | X | | | | X | X | | | | | | | X | | | | | | | X | | | | | | | | | |
| Botanic Gardens Conservation | Global | | | | | | X | | | | | | | X | X | | X | | | | | | | | X | | | | | | | | | X | X |

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| Organisation / Initiative | Geographical focus | Communication, education, awareness | Valuation; ecosystem accounting | Mainstreaming | Incentives | Sustainable consumption, production | Threatened natural habitats | Sustainable fisheries | Sustainable agriculture, aquaculture, forestry | Pollution control | Invasive alien species | Reducing pressures vulnerable ecosystems | Protected areas | Threatened species | Genetic diversity | Ecosystem services safeguarding | Ecosystem restoration | NBSAPs development/implementation | Traditional knowledge/practices IPLCs | Knowledge, science and technology | Resource mobilisation | Gender mainstreaming | Taxonomy, species identification | National reporting | Plant conservation strategy | Stakeholder engagement/participation | Scenarios, modelling | Spatial planning, analysis | Biosafety national frameworks | Risk assessment/management | Handling, transport, packaging, identification | Liability and redress | Information sharing | ABS policy/legal frameworks | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Biosafety | | | | | Access | |
| **International** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Care Climate Change | Global | | | | | | | | | X | | | | | | X | | | | | | X | | | | | | | | | | | | | |
| Caribbean Challenge Initiative | Latin America and the Caribbean | | | | | | | | | | | X | X | | | | | | | | | | | | | X | | | | | | | | | |
| Center for International Forestry Research | Global | | | | | | | | X | | | | | | | X | | | | | | | | | | | | | | | | | | | |
| CGIAR | Global | | | X | | | | X | X | | | | | | | X | | | | X | | | | | | | | | | | | | | X |
| Climate technology centre and network | Global | | | | | | | | | | | | | | | X | | | | X | | | | | | | | | | | | | | | |
| Commission des Forets d'Afrique Centrale | Africa | | | | | | X | | X | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Conservation Commons | Global | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Conservation international | Global | | | | | X | | | | | | X | | X | | X | | | X | | | | | | | X | | | | | | | | | |
| Consortium of Scientific Partners | Global | | | X | | | | | | | | | | | | | | | | X | | | | | X | X | | | | | | | | | |

The following table lists organisations/initiatives against thematic areas. The "Biosafety" header spans the columns Biosafety national frameworks, Risk assessment/management, Handling, transport, packaging, identification, and Liability and redress. The "Access" header spans ABS policy/legal frameworks.

| Organisation / Initiative | Geographical focus | Communication, education, awareness | Valuation; ecosystem accounting | Mainstreaming | Incentives | Sustainable consumption, production | Threatened natural habitats | Sustainable fisheries | Sustainable agriculture, aquaculture, forestry | Pollution control | Invasive alien species | Reducing pressures vulnerable ecosystems | Protected areas | Threatened species | Genetic diversity | Ecosystem services safeguarding | Ecosystem restoration | NBSAPs development/implementation | Traditional knowledge/practices IPLCs | Knowledge, science and technology | Resource mobilisation | Gender mainstreaming | Taxonomy, species identification | National reporting | Plant conservation strategy | Stakeholder engagement/participation | Scenarios, modelling | Spatial planning, analysis | Biosafety national frameworks | Risk assessment/management | Handling, transport, packaging, identification | Liability and redress | Information sharing | ABS policy/legal frameworks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coral Triangle Initiative | Asia and the Pacific | | | | | | | X | | | | X | X | | | | | | | | | | | | | | | | | | | | | |
| Ecosystem Services Partnership | Global | | X | | | | | | | | | | | | | X | X | | | X | | | | | | | | | | | | | | |
| EIONET | Europe | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Environmental Law Institute | Global | | | | | | | X | X | X | X | | | | | | | | | X | | | | | | | | | | | | | | |
| Forest ecosystem restoration initiative | Global | | | | | | X | | | | | | | | | X | X | | | | | | | | | | | | | | | | | |
| Friends of Ecosystem-Based Adaptation | Global | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Friends of POWPA | Global | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| FutureEarth | Global | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| GenØk | Europe; Latin America & Caribbean | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | |
| GEO BON | Global | | | | | | | | | | | | | | | | | | | X | | | | | | | X | | | | | | | |
| Global Biodiversity | Global | | | | | | | | | | | | | | | | | | | X | | | X | | | | | | | | | | | |

| Organisation / Initiative | Geographical focus | Communication, education, awareness | Valuation; ecosystem accounting | Mainstreaming | Incentives | Sustainable consumption, production | Threatened natural habitats | Sustainable fisheries | Sustainable agriculture, aquaculture, forestry | Pollution control | Invasive alien species | Reducing pressures vulnerable ecosystems | Protected areas | Threatened species | Genetic diversity | Ecosystem services safeguarding | Ecosystem restoration | NBSAPs development/implementation | Traditional knowledge/practices IPLCs | Knowledge, science and technology | Resource mobilisation | Gender mainstreaming | Taxonomy, species identification | National reporting | Plant conservation strategy | Stakeholder engagement/participation | Scenarios, modelling | Spatial planning, analysis | Biosafety national frameworks | Risk assessment/management | Handling, transport, packaging, identification | Liability and redress | Information sharing | ABS policy/legal frameworks | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Information Facility | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global Genome Biodiversity Network | Global | | | | | | | | | | | | | | X | | | | | X | | | | | | | | | | | | | | X | X |
| Global Island Partnership | Global | | | | | | | | | | | X | | | | | X | | | | | | | | | X | | | | | | | | | |
| Global Ocean Biodiversity Initiative | Global | | | | | | | | | | | X | | | | | | | | X | | | | | | | | | | | | | | | |
| Global Partnership for Business and Biodiversity | Global | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global Partnership on Forest Landscape Restoration | Global | | | | | | | | X | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Global Partnership on local and sub-national action for biodiversity | Global | | | | | X | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | |

| Organisation / Initiative | Geographical focus | Communication, education, awareness | Valuation; ecosystem accounting | Mainstreaming | Incentives | Sustainable consumption, production | Threatened natural habitats | Sustainable fisheries | Sustainable agriculture, aquaculture, forestry | Pollution control | Invasive alien species | Reducing pressures vulnerable ecosystems | Protected areas | Threatened species | Genetic diversity | Ecosystem services safeguarding | Ecosystem restoration | NBSAPs development/implementation | Traditional knowledge/practices IPLCs | Knowledge, science and technology | Resource mobilisation | Gender mainstreaming | Taxonomy, species identification | National reporting | Plant conservation strategy | Stakeholder engagement/participation | Scenarios, modelling | Spatial planning, analysis | Biosafety — Biosafety national frameworks | Risk assessment/management | Handling, transport, packaging, identification | Liability and redress | Information sharing | Access — ABS policy/legal frameworks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Global Resilience Partnership | Global | | | | | | | | | | | | | | | X | X | | | | | | | | | | | | | | | | | |
| Global Taxonomy Initiative | Global | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Global Youth Biodiversity Network | Global | X | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| ICCA Consortium | Global | | | | | | | | | | | | X | | | | | | X | | | | | | | | | | | | | | | |
| ICLEI – Local Governments for Sustainability | Global | X | | X | | X | | | | | | | | | | | | | | | X | | | | | X | | | | | | | | |
| ILSI Research Foundation Center for Environmental Risk Assessment | Global | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | |
| ILTER | Global | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Indigenous Women Biodiversity Network | Global | | | | | | | | | | | | | | | | | | X | | | X | | | | X | | | | | | | | |
| Inter- | Americas | | | | | | | | X | | | | X | | | | | | | | | | | | | X | | | X | X | X | X | X | |

| Organisation / Initiative | Geographical focus | Communication, education, awareness | Valuation; ecosystem accounting | Mainstreaming | Incentives | Sustainable consumption, production | Threatened natural habitats | Sustainable fisheries | Sustainable agriculture, aquaculture, forestry | Pollution control | Invasive alien species | Reducing pressures vulnerable ecosystems | Protected areas | Threatened species | Genetic diversity | Ecosystem services safeguarding | Ecosystem restoration | NBSAPs development/implementation | Traditional knowledge/practices IPLCs | Knowledge, science and technology | Resource mobilisation | Gender mainstreaming | Taxonomy, species identification | National reporting | Plant conservation strategy | Stakeholder engagement/participation | Scenarios, modelling | Spatial planning, analysis | Biosafety national frameworks | Risk assessment/management | Handling, transport, packaging, identification | Liability and redress | Information sharing | ABS policy/legal frameworks | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Biosafety | | | | | Access | |
| American Institute for Cooperation on Agriculture | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| International Barcode of Life | Global | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| International Center for Agricultural Research in the Dry Areas | Global | | | | | | | X | X | | | X | | | X | | | | | | | | | | | | | | | | | | | | |
| International Centre for Genetic Engineering and Biotechnology | Global | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | X | X | X | | | |
| International Development Law Organization | Global | | | X | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | X | X |
| International Food Policy Research Institute | Global | | | X | | | | | X | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| International | Global | | | X | | | | | X | | | | | | | | | | | | | | | | | X | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Life Sciences Institute | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| International Livestock Research Institute | Global | | | | | | | | X | | | | | | X | | | | | X | | | | | | | | | | | | | X | |
| International Science Council | Global | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| International Service for the Acquisition of Agri-biotech Applications (ISAAA) | Global; Southeast Asia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | X |
| International Tropical Timber Organisation | Global | | | X | | X | | | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| International Union of Biological Sciences | Global | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| IPBES | Global | | X | | | | | | | | | | | | | | | X | | X | | | | | | | X | | | | | | | |
| IUCN | Global | X | X | X | | X | X | | | | X | X | X | X | | X | X | X | X | X | | | X | | | X | | | | | | | | X |
| Joint Group of | Global | | | | | | | | X | | | X | | | | | | | | | | | | | | | | | | | | | | |

| Organisation / Initiative | Geographical focus | Communication, education, awareness | Valuation; ecosystem accounting | Mainstreaming | Incentives | Sustainable consumption, production | Threatened natural habitats | Sustainable fisheries | Sustainable agriculture, aquaculture, forestry | Pollution control | Invasive alien species | Reducing pressures vulnerable ecosystems | Protected areas | Threatened species | Genetic diversity | Ecosystem services safeguarding | Ecosystem restoration | NBSAPs development/implementation | Traditional knowledge/practices IPLCs | Knowledge, science and technology | Resource mobilisation | Gender mainstreaming | Taxonomy, species identification | National reporting | Plant conservation strategy | Stakeholder engagement/participation | Scenarios, modelling | Spatial planning, analysis | Biosafety national frameworks | Risk assessment/management | Handling, transport, packaging, identification | Liability and redress | Information sharing | ABS policy/legal frameworks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Biosafety | | | | | Access |
| Experts on the Scientific Aspects of Marine Environmental Protection | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Marine Conservation institute | North America | | | | | | | X | | | | X | X | | | | | | | | | | | | | | | | | | | | | |
| Natural Justice | Africa | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| NatureServe | North America Global | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| NBSAP Forum | Global | | | | | | | | | | | | | | | | | X | | X | | | | | | | | | | | | | | |
| NEPAD Agency African Biosafety Network of Expertise | Africa | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | X | X | X | X | |
| North Pacific Marine Science Organisation | Asia and the Pacific | | | | | | | | | | | X | | | | X | | | | X | | | | | | | | | | | | | | |
| Ocean Biogeographic | Global | | | | | | | | | | | X | | | | | | | | X | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Biosafety | | | | | Access |
| Organisation / Initiative | Geographical focus | Communication, education, awareness | Valuation; ecosystem accounting | Mainstreaming | Incentives | Sustainable consumption, production | Threatened natural habitats | Sustainable fisheries | Sustainable agriculture, aquaculture, forestry | Pollution control | Invasive alien species | Reducing pressures vulnerable ecosystems | Protected areas | Threatened species | Genetic diversity | Ecosystem services safeguarding | Ecosystem restoration | NBSAPs development/implementation | Traditional knowledge/practices IPLCs | Knowledge, science and technology | Resource mobilisation | Gender mainstreaming | Taxonomy, species identification | National reporting | Plant conservation strategy | Stakeholder engagement/participation | Scenarios, modelling | Spatial planning, analysis | Biosafety national frameworks | Risk assessment/management | Handling, transport, packaging, identification | Liability and redress | Information sharing | ABS policy/legal frameworks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Information System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Organisation for Economic Cooperation and Development | Global | | | X | X | X | X | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Planetary Health Alliance | Global | | | X | | | | | | | | X | | | | X | | | | | | | | | | | | | | | | | | |
| Programme on Forests (PROFOR) | Global | | | | | | | | X | | | | | | | X | | | | | X | | | | | | | | | | | | | |
| Regional Agricultural and Environmental Innovations Network-Africa | Africa | | | | | | | | | | | | | | | X | | | | | | | | | | | | | X | X | X | X | X | |
| Regions4 | Global | | | X | | X | | | | | | | | | | | | | | | | | | | | | X | | | | | | | |
| Royal Belgian Institute of Natural Sciences | Africa | X | | | | | | | | | | X | | | | | | | | X | | | X | X | | | | | | | | | | X |
| SGA Network | Global | | X | | | | | | | | | | | | | | | | | X | X | | | | | | | | | | | | | |
| South Asia | Asia and | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | X | X | X | X | |

| Organisation / Initiative | Geographical focus | Communication, education, awareness | Valuation; ecosystem accounting | Mainstreaming | Incentives | Sustainable consumption, production | Threatened natural habitats | Sustainable fisheries | Sustainable agriculture, aquaculture, forestry | Pollution control | Invasive alien species | Reducing pressures vulnerable ecosystems | Protected areas | Threatened species | Genetic diversity | Ecosystem services safeguarding | Ecosystem restoration | NBSAPs development/implementation | Traditional knowledge/practices IPLCs | Knowledge, science and technology | Resource mobilisation | Gender mainstreaming | Taxonomy, species identification | National reporting | Plant conservation strategy | Stakeholder engagement/participation | Scenarios, modelling | Spatial planning, analysis | Biosafety national frameworks | Risk assessment/management | Handling, transport, packaging, identification | Liability and redress | Information sharing | ABS policy/legal frameworks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Biosafety | | | | | Access |
| Biotechnology Centre | the Pacific | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Southern African Development Community | Africa | | | | | X | X | X | X | X | | X | X | X | X | | | | | | | | | | | | | | | | | | | X |
| SPREP | Asia and the Pacific | | | X | | | | | | X | X | X | X | | | X | X | | | | | | | | | X | | | | | | | | X |
| Stockholm Resilience Centre | Europe; Global | | | | | X | | | | | | | | | | X | X | | | | | | | | | | | | | | | | | |
| The Nature Conservancy | Global | X | X | | | X | X | X | X | X | X | X | X | X | | X | X | | X | X | | | | | | | | | | | | | | |
| The Scientific Committee on Antarctic Research | Antarctic | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| The World Academy of Sciences | Africa; Asia and the Pacific; Latin America and the Caribbean | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| TRAFFIC International | Global | | | | | X | | | | | | X | | | | | | | | | | | | | | | | | | | | | | |

| Organisation / Initiative | Geographical focus | Communication, education, awareness | Valuation; ecosystem accounting | Mainstreaming | Incentives | Sustainable consumption, production | Threatened natural habitats | Sustainable fisheries | Sustainable agriculture, aquaculture, forestry | Pollution control | Invasive alien species | Reducing pressures vulnerable ecosystems | Protected areas | Threatened species | Genetic diversity | Ecosystem services safeguarding | Ecosystem restoration | NBSAPs development/implementation | Traditional knowledge/practices IPLCs | Knowledge, science and technology | Resource mobilisation | Gender mainstreaming | Taxonomy, species identification | National reporting | Plant conservation strategy | Stakeholder engagement/participation | Scenarios, modelling | Spatial planning, analysis | Biosafety national frameworks | Risk assessment/management | Handling, transport, packaging, identification | Liability and redress | Information sharing | ABS policy/legal frameworks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNEP-WCMC | Global | | X | X | | X | X | X | X | | | X | X | X | | X | X | X | X | X | | X | | X | | | X | X | | | | | | X |
| United Cities and Local Governments | Global | | | | | | X | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Wildlife Conservation Society | Global | | | | | | X | X | | | | | X | X | | | | | X | | | | | | | | | | | | | | | |
| World Bank | Global | | | | | | | X | X | | | | X | | | X | | | | | X | | | | | | | | | | | | | |
| World Fish Center | Global | | | | | | | X | X | | | | | | | | | | | X | | | | | | | | | | | | | | |
| World Resources Institute | Global | X | X | X | X | X | X | X | X | | | X | X | | | X | X | | | X | | | | | | | | | | | | | | |
| WWF | Global | | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | | | X | | | | | | | X | | | | | | | |

# Annex 4. Additional information relating to section 4

## Table 5. Sample of countries whose NBSAPs and national reports were used within this analysis

| Region | Country | Category | Documents considered | | | |
|---|---|---|---|---|---|---|
| | | | NBSAP | National Report | Cartagena National Report | Nagoya National Report |
| Africa | 1. Cameroon | Developing country | 2012 – 2020 | 6th national report | 3rd national report | Interim report |
| | 2. Nigeria | Developing country | 2016 - 2020 | 6th national report | 3rd national report | Interim report |
| | 3. South Africa | Developing country | 2015 – 2025 | 6th national report | 3rd national report | Interim report |
| | 4. Sudan | Developing country | 2015 - 2020 | 6th national report | 3rd national report | Interim report |
| | 5. United Republic of Tanzania | Developing country | 2015-2020 | 6th national report | 3rd national report | N/A |
| Asia Pacific | 6. India | Developing country | 2008, addendum 2014;2019 | 6th national report | 3rd national report | Interim report |
| | 7. Myanmar | Developing country | 2015-2020 | 6th national report | 3rd national report | Interim report |
| | 8. Philippines | Developing country | 2015 - 2028 | 6th national report | 3rd national report | Interim report |
| | 9. Samoa | SIDs and LDC | 2015 - 2020 | 5th national report | N/A | Interim report |
| | 10. Viet Nam | Developing country | 2015 -2020 | N/A | 3rd national report | Interim report |
| Eastern Europe | 11. Belarus | Economy in Transition | 2016-2020 | 6th national report | 3rd national report | Interim report |
| | 12. Republic of Moldova | Economy in Transition | 2015-2020 | 6th national report | 3rd national report | Interim report |
| Latin America and the Caribbean | 13. Antigua and Barbuda | SIDS | 2014-2025 | 6th national report | 3rd national report | Interim report |
| | 14. Mexico | Developing country | 2016 - 2030 | 6th national report | 3rd national report | N/A |
| | 15. Peru | Developing country | 2014 -2018 | 6th national report | 3rd national report | Interim report |

## Table 6. Sample countries whose fifth and sixth national reports to the CBD were used for analysis[211]

| Region | Country | |
|---|---|---|
| Africa | Burkina Faso | Nigeria |
| | Cameroon | Republic of Congo |
| | Cote d'ivoire | Senegal |
| | Ethiopia | South Africa |
| | Ghana | **Sudan*** |
| | Liberia | Tchad |
| | Mauritania | **United Republic of Tanzania*** |
| | Namibia | Zambia |
| | Niger | |
| Asia Pacific | Bhutan | **Philippines*** |
| | China | **Samoa*** |
| | India | Sri Lanka |
| | Kazakhstan | Thailand |
| | Kyrgyzstan | Uzbekistan |
| | Myanmar | **Viet Nam*** |
| | Nepal | |
| Eastern Europe | Armenia | Republic of Moldova |
| | **Belarus*** | |
| Latin America and the Caribbean | Antigua and Barbuda | **Peru*** |
| | Costa Rica | Trinidad & Tobago |
| | **Mexico*** | |

[211] Explanatory note: Based on 6th national reports of the following 31 countries: Antigua and Barbuda, Armenia, Bhutan, Burkina Faso, Cameroon, China, Costa Rica, Cote d'ivoire , Ethiopia, Ghana, India, Kazakhstan, Kyrgyzstan, Liberia, Mauritania, Myanmar, Namibia, Nepal, Niger, Nigeria, Republic of Congo, Republic Moldova, Senegal, South Africa, Sri Lanka, Tchad, Thailand, Trinidad & Tobago, Uzbekistan and Zambia plus additional <u>eight countries</u> based on UNEP-WCMC analysis: Belarus, Mexico, Peru, Philippines, Samoa, Sudan and United Republic of Tanzania*. There was an overlap between <u>seven countries</u> used in both the CBD and UNEP-WCMC analysis of national reports to the CBD. These are: Antigua and Barbuda, Cameroon, India, Myanmar, Nigeria, Republic of Moldova and South Africa.

## Table 7. Capacity needs and gaps identified from sixth national reports to the CBD[212] [213]

| Aichi Target | Target description | Capacity need, gap and challenge |
|---|---|---|
| 1 | Awareness increased | • Communication, education and public awareness (CEPA) approaches or strategy on biodiversity issues for all stakeholders<br>• Data collection for the effectiveness of biodiversity programmes<br>• Lack of capacities to develop education programs to raise awareness on the importance of biodiversity<br>• Low education level and poverty of communities who live and around biodiversity areas.<br>• Lack of collaboration and coordination between different institutions and programmes including those tasked with generating biodiversity information<br>• Fragmented policy and legal institutions<br>• Lack of awareness on the value of biodiversity and ecosystem services |
| 2 | Biodiversity values integrated | • Lack of adequate legal and policy regulations<br>• Lack of legal skillsets of personnel<br>• Insufficient coordination and collaboration between different institutions and stakeholders and other actors or sectors<br>• Limited or no mechanisms to hold institutions accountable or enforce regulations<br>• Lack of involvement of authorities and local populations in the process of integrating biodiversity<br>• Poverty and the political instability in some country<br>• No systematic monitoring in place for mainstreaming |
| 3 | Incentives reformed | • Lack of funding for subsidies designed to promote the conservation and sustainable use of biodiversity<br>• Lack of coherence been economic development policies and biodiversity conservation policies.<br>• Poor enforcement of legislation and incentives for conservation.<br>• Lack of information and data, due to inadequate infrastructure and trained staff<br>• Lack of monitoring and evaluation to put the right incentives in place for the conservation and sustainable use of biodiversity<br>• Weak mechanisms for addressing human-wildlife conflict |
| 4 | Sustainable consumption and production | • Lack of funding<br>• Lack of relevant data including databases, indicators and monitoring frameworks<br>• Poor implementation of existing policies and approaches<br>• Lack of an adequate regulatory framework (perpetuating bad habits that destroy biodiversity such as trafficking and poaching) and poor enforcement of existing legislation<br>• Lack of expertise regarding taxonomy |
| 5 | Habitat loss halved or reduced | • Weak institutional capacity with regards to data collection<br>• Lack of funding.<br>• Lack of capacity to fund and operationalize mainstreaming of biodiversity principles into national frameworks and policies national |
| 6 | Sustainable management of marine living resources | • Lack of funding for research and monitoring of implementation<br>• Weak collaboration between institutions, the private sector and individuals for sustainable management of fisheries<br>• Institutional funding limitations<br>• Difficulty to collect the necessary data and adequately monitor fishing activities and water bodies |

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[212] Based on 6th national reports of the following 31 countries: Antigua and Barbuda, Armenia, Bhutan, Burkina Faso, Cameroon, China, Costa Rica, Cote d'Ivoire , Ethiopia, Ghana, India, Kazakhstan, Kyrgyzstan, Liberia, Mauritania, Mauritania, Moldova, Myanmar, Namibia, Nepal, Niger, Nigeria, Republic of Congo, Senegal, South Africa, Sri Lanka, Tchad, Thailand, Trinidad & Tobago, Uzbekistan and Zambia

[213] CBD Secretariat. 2019. *Synthesis report based on analysis of the Sixth National reports for input into the development of the long-term strategic framework on capacity-building beyond 2020*. Internal report: unpublished.

| 7 | Sustainable agriculture, aquaculture and forestry | • Lack of funding for interventions on sustainable agriculture, aquaculture and forestry<br>• No assessments on agriculture, aquaculture and forestry have been carried out yet<br>• Limited institutional capacities such as lack of data<br>• Limited or no engagement with the private sector and local communities<br>• Lack of clearly defined land rights and ownership and access to natural resources.<br>• Lack of capacity to address land disputes |
|---|---|---|
| 8 | Pollution reduced | • Lack of trained personnel to deal with pollution management issues<br>• Lack of adequate regulatory frameworks to govern pollution control, as well as funding to do so<br>• Lack of monitoring and evaluation of pollution<br>• Weak application/implementation of legislation<br>• Inadequate communication and coordination between stakeholders and other key actors |
| 9 | Invasive alien species prevented and controlled | • Weak institutional capacities to deal with invasive alien species including inadequate sustainable institutional funding<br>• Inadequate regulatory frameworks and poor enforcement of existing regulations<br>• Insufficient sharing and access to data needed for regulatory enforcement<br>• Lack of funding<br>• Projects on invasive alien species tend to be very costly |
| 10 | Pressures on vulnerable ecosystems reduced | • Weak and inadequate mechanisms for land-dispute resolution dedicated to the protection of vulnerable ecosystems are the main limitation<br>• Lack of data and personnel with knowledge on this topic<br>• Institutional constraints especially engaging and negotiating with local communities regarding the demarcation of areas dedicated to preserving vulnerable ecosystems<br>• Lack of large-scale investment in interventions aimed at reducing pressures on vulnerable ecosystems<br>• Political instability<br>• Lack of political will or support for the conservation of vulnerable ecosystems |
| 11 | Protected areas increased and improved | • Lack of funding and weak institutional capacity<br>• Lack personnel with relevant skills and technology to aid management of protected areas<br>• Poor management of protected areas<br>• Lack of autonomous, transparent and coordinated management structure between stakeholders |
| 12 | Extinction prevented | • Lack of adequate skilled labour<br>• Lack of skilled personnel needed for better ground monitoring and data collection.<br>• Poor coordination between academia, relevant government departments and other stakeholders<br>• Poor inclusion of research evidence in developing conservation plans |
| 13 | Genetic diversity maintained | • Lack of access to financial resources, particularly for research<br>• Lack of national programmes and projects for in – and ex- situ conservation |
| 14 | Ecosystems and essential services safeguarded | • Inadequate regulatory frameworks<br>• Inadequate data, monitoring and indicators<br>• Lack of staff to monitor and supervise on ground actions at safeguarding Ecosystems and essential services safeguarded<br>• Lack of mainstreaming<br>• Lack of access of resources use by women and IPLCs and their involvement in actions take<br>• Lack of mechanisms to financial resources restoration |
| 15 | Ecosystems restored and resilience enhanced | • Weak institutional capacity<br>• Lack of skilled personnel on ecosystem restoration<br>• Lack of adequate regulatory frameworks<br>• Lack of capacity for monitoring and evaluation<br>• Inadequate interventions to reduce pressure and environmental damaging practices of local communities<br>• Lack of approaches that involve communities in the conservation and sustainable use of biodiversity |

| 16 | Nagoya Protocol in force and operational | <ul><li>Lack of funding</li><li>Poor institutional co-ordination</li><li>Lack of awareness from all stakeholders especially the local population</li><li>Lack of expertise regarding the Protocol and the benefits derived from access and benefit-sharing</li><li>Lack of uniform standards for the storage of collections of genetic resources</li><li>Incomplete representation of taxa, incomplete geographical coverage, and working with various ethnic groups living within the country on how to appropriately implement the Protocol</li><li>Inadequate or no implementation of mechanisms to ensure benefit sharing, reduce the administrative burden and reinforce the legal capacity to ensure implementation and compliance at all levels</li></ul> |
|---|---|---|
| 17 | NBSAPs adopted as policy instrument | <ul><li>Inadequate institutional capacity and funding to ensure the effective implementation of NBSAPs</li><li>Limited amount of diffusion of the NBSAPs in different languages. Failure to translate the NBSAPs into different languages spoken in different countries affects the NBSAP uptake</li><li>Limited technical capacity to implement the NBSAPs</li><li>Institutional complexity and multiple stakeholders and sectors involved in the process of developing and implementing NBSAPs</li><li>Recurrent restructuring of institution has affected the implementation of NBSAPs</li></ul> |
| 18 | Traditional knowledge respected | <ul><li>Challenging process of adequately documenting traditional knowledge that can be translated and applied within biodiversity frameworks</li><li>Lack of easy access to good practices on documenting traditional knowledge and integrate it into mainstreaming policy</li><li>Lack of funding for building the capacity to acquire and effectively use traditional knowledge</li><li>Need for a systemized and centralized database system</li><li>Resistance by some communities to share traditional knowledge, for example due to their sacred value</li></ul> |
| 19 | Knowledge improved, shared and applied | <ul><li>Lack of knowledge, data and information sharing</li><li>Inadequate coordination and collaboration with similar organisations/institutions</li><li>Knowledge and information sharing</li><li>Insufficient technical and scientific staff</li><li>Lack of funds from relevant institutions to follow-up and to assess the effectiveness of programmes meant to acquire scientific knowledge</li></ul> |
| 20 | Financial resources from all sources increased | <ul><li>Lack of knowledge regarding the use of financial resources</li><li>Inadequate training in resource mobilisation and biodiversity funding</li><li>Lack of sustainable and sufficient financial mechanisms</li><li>Low investment of state budgets toward conservation and sustainable biodiversity</li></ul> |

## Table 8. Examples of thematic capacity needs and gaps identified from NBSAPs submitted to the CBD

| Thematic capacity need, gap or challenge | Some examples of specific capacity needs (for a sample of countries) |
|---|---|
| Biodiversity valuation and ecosystem accounting | <ul><li>Strengthen the capacity of institutions (specifically their forestry department and the media) to communicate biodiversity topics and values[214]</li><li>Limited awareness of the value of biodiversity, particularly its economic and socio-economic importance and its link to development</li></ul> |
| Mainstreaming | <ul><li>Inadequacies in networking and knowledge sharing; between biodiversity professionals, academia and governments[215]</li></ul> |

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[214] Myanmar
[215] Sudan, Mexico and the Philippines

| | |
|---|---|
| | • Need to establish science-policy "bridge" institutions[216] <br> • Promote training and awareness programme to foster interactions at all levels especially amongst academia, local governments and society[217] <br> • Support more informed decision making by other sectors[218] <br> • Need for and importance of improved linkages and involvement of the private sector <br> • Inadequate policy and legal framework regarding biodiversity issues <br> • The need to mainstream biodiversity into and harmonization of legislation, sector policies, plans and strategies |
| Invasive Alien Species (IAS) | • Limited technical and financial capacity in the identification of IAS, their impact (economic, social and environmental) and their spatial spread. Issues identified included limited skilled staff and technical capabilities and difficulties in obtaining resources and funding – particularly for emergency responses in some cases[219] <br> • Capacity building needed throughout the IAS eradication programmes, from the initial research stage to identify and create inventories and databases, and subsequently in the monitoring and evaluation of their status and trends. Interestingly, in one of the explored countries[220] <br> • Institutional capacity building and support to develop and implement adequate regulatory frameworks[221] <br> • Capacity development and resources were needed to make databases and information easily available and accessible at a range of institutional levels and jurisdictions to help inform land managers and decision makers[222] <br> • Inadequacies in the sharing of and access to data which can lead to challenges for regulatory enforcement[223] <br> • Public awareness on IAS and their impacts was limited and needed to be raised through communication materials, training and studies[224] <br> • Need for a coordinating agency to help ensure the effective management of IAS, bringing together experts in a range of different fields including research, management, communication and policymaking to effectively manage and deal with IAS[225] <br> • Need to promote international and regional cooperation and management in order to establish control measures share best practices for early detection and eradication of IAS[226] <br> • International cooperation, information sharing (including best practices) and scientific and technology transfer were required to establish control measures for the passage of IAS and effective management[227] <br> • DNA-based technologies to assist enforcement in species identification[228] |
| Protected areas | • Limited capacity of their protected area and national park staff relating to their number but also proficiency[229] <br> • Disparities in the levels of skills of the staff between different national parks[230] <br> • Lack of resources to establish new protected areas and the sustainability and maintenance of projects due to low funding[231] <br> • Serious deficiencies' in national capacity due to lack of budgeting equipment and staff and specifically mentioned a lack of capacity to organise locally managed marine areas[232] |

[216] Mexico

[217] India

[218] United Republic of Tanzania

[219] Samoa

[220] Antigua and Barbuda

[221] Antigua and Barbuda

[222] South Africa, Sudan and Myanmar

[223] South Africa, Sudan and Myanmar

[224] India and Myanmar

[225] India, Myanmar and Sudan

[226] Sudan, India, Mexico and Antigua and Barbuda

[227] Sudan, India, Mexico and Antigua and Barbuda

[228] Myanmar

[229] United Republic of Tanzania, South Africa, Myanmar, Antigua and Barbuda and the Republic of Moldova

[230] South Africa

[231] South Africa

| | |
|---|---|
| | • Low level of public awareness on protected areas and low community engagement and participation in designation of protected areas[233]<br>• Identified the need to build the capacities of landowners to help support the concept of protected areas and their importance[234]<br>• Insufficient technical resources and capacities to establish and effectively manage protected areas<br>• Technical training in management effectiveness assessments for monitoring in programmes in protected areas)[235] |
| Threatened species | • Taxonomy and species identification[236]<br>• Shortage of qualified technical staff such as taxonomists, poor identification guidelines and databases with gaps in the taxonomy of certain species, particularly food and wild crops[237]<br>• Building knowledge, maintaining a database and similarly having large gaps in datasets[238]<br>• Lack of capacity to repeat assessments of threatened species periodically, making it challenging for recognising trends[239] |
| Resource mobilisation | • Lack of financial resources for biodiversity and conservation actions and implementation of NBSAPs (al countries used in this study mentioned this need)<br>• Lack of facilities and equipment to support biodiversity actions[240]<br>• Lack of funding for implementation of the NBSAP and long-term sustainability of biodiversity-related projects<br>• Lack of funding for scaling up of activities of biodiversity-related projects and[241]<br>• Lack of funding to implement projects and programmes such as forest restoration projects[242] |
| NBSAPs development and implementation | • Lack of capacity and legal framework to implement the NBSAP |
| Traditional knowledge and indigenous peoples and local communities (IPLCs) | • Targeted training of personnel to undertake an assessment survey of traditional knowledge and practices of its communities[243]<br>• Building the capacity of IPLCs to engage and to scale up their contribution for implementation of the Convention and its Protocols<br>• Building the capacity of governments and others to engage with and involve IPLCS<br>• Building capacities of decision makers to integrate the use of traditional knowledge in decision making |

[232] Myanmar
[233] United Republic of Tanzania, Sudan and the Republic of Moldova
[234] Samoa
[235] Antigua and Barbuda
[236] India, Myanmar and the Philippines
[237] India, Myanmar and the Philippines
[238] Antigua and Barbuda
[239] South Africa and Antigua and Barbuda
[240] Sudan, the Philippines and Samoa
[241] The Philippines
[242] Myanmar
[243] Samoa

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