

Key scientific and technical needs for the implementation of the CBD Strategic Plan for Biodiversity 2011-2020



At its 17th meeting in 2013, the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to the CBD presented a list of urgent scientific and technical needs to implementing the Strategic Plan for Biodiversity 2011-2020. This list resulted from a review of existing policy support tools and methodologies developed or used under the Convention with regards to their adequacy for, and impact on the targeted activities, as well as obstacles to their uptake by governments and other institutions. At its nineteenth meeting, taking place 2 to 7 November 2015 in Montreal, Canada, SBSTTA will discuss actions already taken towards meeting these needs and consider further steps towards improvement.

ADDRESSING SCIENTIFIC AND TECHNICAL NEEDS OF THE CBD

SBSTTA will now be reviewing whether progress has been made to addressing the key scientific and technical needs as identified by Member States¹. However, only eight countries submitted updates

regarding their action towards meeting these needs: Australia, Bahrain, Canada, the European Union and its Members States, Japan, Mexico, New Zealand, and Oman. Based on these submissions, the CBD Secretariat presented a compilation of activities undertaken by these countries.

¹ See UNEP/CBD/SBSTTA/17/2 & Add.1-4

CBD Fact Sheet, 2/2015

Social Sciences needs

- Improving understanding of motivations and behavioural change, production & consumption patterns, policy development, and non-market tools

Few countries reported on actions towards public awareness rising related to biodiversity, and some about allocating budgets for researching behavioural issues. However, the CBD Secretariat concludes that much more efforts are needed to close this gap. Referring to the 2015 World Development Report: Mind, Society and Behaviour, published by the World Bank, the Secretariat identifies three major areas for enhancing research and starting pilot projects: behavioural change research: motives and barriers to pro-biodiversity behaviour); social marketing strategies and techniques to build ownership among individuals as agents of change; and participatory processes to support the design of institutions to long-term development of pro-biodiversity incentives).

Data and information, and evaluation and assessment needs

- Improving access and availability of data for, and information on, particularly remote sensing, citizen science, data standards, modelling and scenarios
- Improving methodologies for assessing status and trends of species and ecosystems, conservation gaps, ecosystem functions and services, and human well-being

Actions undertaken by Parties include development of national environmental information infrastructure, including guides, standards, web-based data platforms, providing access to data, indicators and assessments, strengthening science-policy interfaces, public portals to enhance citizen science involvement, and remote sensing technology tools.

The Secretariat also mentions several initiatives and programmes engaged in data collection and monitoring: the international barcode of life network collecting DNA-sequence based species identifications, the Group on Earth Observations Biodiversity Observation Network (GEO-BON), the United Nations Environment Programme and the UNEP World Conservation Monitoring Centre (UNEP-WCMC), the regional assessments under the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and the Global Biodiversity Informatics Outlook which promotes a globally coordinated approach to mobilizing biodiversity information for policy making.

Planning and mainstreaming needs

- Improving planning tools and mainstreaming approaches through, *inter alia*, biodiversity safeguards, spatial planning incl. integrated land use & marine planning, valuation of biodiversity and ecosystem functions and services, and mainstreaming of biodiversity into sustainable development and other relevant sectors

Parties reported on legal acts promoting the integration of biodiversity into development, National Conservation Plans aiming at conserving natural heritage, planning and approval processes, projects on assessing ecosystem services and their economic values, National Spatial Strategies, environmental impact assessments and spatial planning and zoning processes, as well as biodiversity offset mechanisms.

Linking science and policy needs

- Improving the integration of science and policymaking and related science-policy interfaces, esp. on local & national level and through IPBES, improving tools for policy

CBD Fact Sheet, 2/2015

coherence and evaluation, producing scenarios & options for policymakers

The reports by Parties listed enhanced efforts to provide scientific advice to policy through various national scientific institutions and programmes, online fora, and science advisors.

The Secretariat highlighted the collaboration with IPBES which is expected to strengthen the science-policy interfaces at regional and subregional levels, and will provide a catalogue of policy support tools and an assessment on scenario development and modelling of biodiversity and ecosystem services.

Maintenance, conservation and restoration of ecosystems needs

- Improving understanding of, *inter alia*, ecological limits, tipping points, socio-ecological resilience, and ecosystem services; improving methodologies and indicators for monitoring resilience and recovery

Parties reported on the ongoing national biodiversity and ecosystem services assessments, projects on coastal restoration and fish stock recovery, on Socio-ecological Production Landscapes, and programmes on ecosystem restoration.

Additionally, the Secretariat highlighted several institutions and initiatives working towards conservation and restoration of ecosystems: the Forest Ecosystem Restoration Initiative, the “Caring for Coasts” Initiative, and the IUCN Red List of Ecosystems.

Economic instruments needs

- Improving understanding of the performance of economic instruments; improving guidance and tools to develop positive and reforming harmful incentives, and the inte-

gration of biodiversity into national accounting

With regard to economic instruments, the report by the Secretariat, unfortunately, has to state that there has not been much progress so far. Parties mostly referred to the provision of various positive incentive measures, only a few countries referred to harmful subsidies.

However, there are several studies that have been completed or are in progress which address subsidies harmful to biodiversity, e.g. by the Institute for European Environmental Policy (IEEP) and the Organisation for Economic Cooperation and Development (OECD).

Traditional knowledge needs

- Identifying better ways to include indigenous and traditional knowledge and their practices into the work under the Convention

To address the issue of integrating traditional knowledge into the Convention’s work the CBD has established an Ad Hoc Open-ended Working Group on Article 8(j) (WG8(j)) which refers to the knowledge, innovations and practices of indigenous and local communities related to biodiversity. The upcoming meeting of WG8(j) will be working on guidelines on how to include traditional knowledge and repatriate it to help overcome knowledge erosion occurring in respective countries.

Organisations partnering with the CBD include the International Labour Organization on traditional occupations, the United Nations Educational, Scientific and Cultural Organization on traditional languages and the International Land Coalition (and the International Fund for Agricultural Development and the Food and Agriculture Organization of the United Nations). Furthermore, IPBES has estab-

CBD Fact Sheet, 2/2015

lished a task force on indigenous and local knowledge systems. Under its 2014-2018 work programme, the task force continues to develop procedures for and approaches to working with indigenous and local knowledge.

Scientific and technical cooperation needs

- Fostering cooperation among Parties, scientific networks and relevant organisations; enhancing the CBD clearing-house mechanism

Parties reported on examples of cooperation between governmental and scientific institutions, facilitated by supervising scientists, cross-sector partnerships, memoranda of understanding, and participatory science platforms to create research partnerships between scientific institutions and communities.

The Secretariat further mentioned its Bio-Bridge Initiative and the CBD Clearing-House Mechanism, the Climate Technology Centre and Network (CTCN), as well as the capacity-building activities of IPBES fostering exchange between various organisations.

Different approaches needs

- Strengthening non-monetary valuation tools, and methodologies for maintaining ecosystem functions

Countries reported on studies on the contributions of indigenous biodiversity and natural ecosystems to human well-being, and alternative valuation approaches.

BIODIVERSITY RESEARCH

In addition to the list of key scientific and technical needs, the Conference of the Parties (COP) to the CBD, at its last meeting in 2014 in Korea (CBD COP-12), decided to intensify efforts regarding article 12 of the Convention which addresses research and training (decision XII/31) – with particular emphasis on capacity building and training for developing countries.

This decision comprises three components: i) establish and maintain programmes for scientific and technical education and training, ii) promote and encourage research, and iii) promote and cooperate in the use of scientific advances in biological diversity research in developing methods for conservation and sustainable use of biological resources.

Aiming at addressing these issues, the Secretariat highlights the opportunities that arrive with the newly established Future Earth, an international research platform on global environmental change and sustainability. Bringing together four global change research programmes – DIVERSITAS, the International Geosphere-Biosphere Programme, the International Human Dimensions Programme and the World Climate Research Programme – Future Earth will focus on the promotion of interdisciplinary, co-designed and co-produced science, with strong links to biodiversity and ecosystem services.

STAYING UPDATED

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