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MECHANISMS AND ARRANGEMENTS FOR TECHNICAL AND SCIENTIFIC COOPERATION OF RELEVANCE TO THE CONVENTION ON BIOLOGICAL DIVERSITY

Note by the Executive Secretary

INTRODUCTION

1. The present note is submitted to the fifth meeting of the Ad Hoc Open-ended Working Group on Review of Implementation of the Convention to complement document UNEP/CBD/WGRI/5/3/Add.1.

2. In paragraphs 15 and 17 of decision XI/2, the Conference of the Parties requested the Executive Secretary to develop, in cooperation with relevant partner organizations and subject to the availability of resources, a coherent, consistent and coordinated approach to technical and scientific cooperation, with a view to facilitating the full and effective implementation of Article 18 and related articles of the Convention, in support of the Strategic Plan for Biodiversity 2011-2020, building upon existing mechanisms, and to develop operational options and proposals towards the establishment of a capacity-building network of national and regional centres of excellence.

3. This information document provides an overview of existing mechanisms, instruments and arrangements on technical and scientific cooperation of relevance to the Convention on Biological Diversity. These include information on technical and scientific cooperation under the other two Rio Conventions, the United Nations Convention to Combat Desertification (UNCCD) and the United Nations Framework Convention on Climate Change (UNFCCC), as well as on cooperation and network arrangements supported by United Nations agencies and other international and regional processes, organizations, networks and agencies operating at the global, regional, national and subnational levels. The summary of entities and arrangements is not intended to be exhaustive.

I. TECHNICAL AND SCIENTIFIC COOPERATION ON BIODIVERSITY AT GLOBAL, REGIONAL, NATIONAL AND SUBNATIONAL LEVELS

4. Technical and scientific cooperation on biodiversity can be considered at four levels, with different actors and characteristics. Examples are presented in this section as relevant to each of these scales.

* UNEP/CBD/WGRI/5/1.

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- *Global/international*: United Nations agencies (particularly the UNU, UNESCO, UNDP, UNEP and the United Nations South-South Cooperation office, UNOSSC), as well as the secretariats of multilateral environmental agreements, the International Council for Science (ICSU), the International Union for Conservation of Nature (IUCN), large international NGOs, the World Bank, the GEF, some multilateral and bilateral cooperation agencies of global scope, and major groups' global associations;
- *Regional*: regional agencies and programmes, including United Nations agencies' Regional Offices e.g. UNEP, the EU, ACTO, COMIFAC, Mercosur, SADC, and the Andean Community and regional bodies/agreements development and environment agencies, such as SPREP and the ASEAN Center for Biodiversity, the UNEP Regional Seas Conventions, the United Nations regional commissions and regional universities.
- *National*: National Governments and their relevant Ministries, often through national centres such as those that are members of the Consortium of Scientific Partners under the CBD, and agencies such as Chinese Academy of Sciences, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia, national museums of natural history, national botanical gardens and their herbaria, *ex-situ* conservation facilities (gene banks, culture collections), leading national universities and cooperation platforms for major groups.
- *Subnational and local*: Agencies funded, managed or supported by cities and provinces/states and involving networks of cities and subnational governments such as ICLEI-Local Governments for Sustainability and the Network of Regional Governments for Sustainable Development (nrg4SD).

A. Global processes, networks and agencies relevant to technical and scientific cooperation for biodiversity

United Nations Convention to Combat Desertification

5. Technical and scientific cooperation is part of the UNCCD 10-year strategy and decision 4/COP 9[1] requests the Secretariat to continue building up efficient knowledge management and knowledge brokering systems to serve as tools for successful implementation. Parties to the UNCCD mandated a Committee on Science and Technology (CST) to establish knowledge-management systems aiming to improve the brokering of technical and scientific information. In 2010, under the guidance of the CST, the Secretariat started the development of a framework for the brokering of technical and scientific information under the UNCCD.

6. Following guidance from Parties, in 2013 the UNCCD secretariat launched a call for expressions of interest for targets organizations and institutions that are in a position to provide information through the UNCCD portal to become a partner in UNCCD scientific knowledge brokering, targeting organizations and institutions.

7. UNCCD decision 23/COP.10, with the aim of making UNCCD a "global authority" on technical and scientific knowledge and information pertaining to desertification, land degradation and drought (DLDD[2]), proposed the creation of a science-policy interface including members of the Bureau of the CST, notable scientists at regional and discipline-level, as well as NGOs and United Nations and international organizations. The establishment of an independent consortium of scientific networks on desertification/land degradation and drought; and regional science and technology platforms that can interact with the science-policy interface for the provision of scientific advice in stepwise manner are also foreseen. The UNCCD Secretariat accordingly has put out a call for partnerships and has been developing partnerships towards a Knowledge Management Brokering Platform aimed at users of global knowledge

[1] http://www.unccd.int/Lists/OfficialDocuments/cop9/COP9_decisions/dec4-COP.9eng.pdf.

[2] http://www.unccd.int/en/programmes/Science/International-Scientific-Advice/Documents/Decision23_COP11.pdf.

and information on desertification land degradation and drought[3]. Criteria for acceptance include whether the organization has an established legal status and maintains repositories for scientific knowledge relevant to the UNCCD process, as well as:

- Consistency between the mission or strategy of the organization and the objectives of the UNCCD portal;
- Prior expertise in similar projects, notably in collaboration involving United Nations organizations;
- Relevance of available knowledge products to policy-makers and practitioners working on DLDD;
- Extent / quality of available DLDD knowledge products;
- Technical suitability of the content repositories including ICT infrastructure, metadata and taxonomy specifications and (legal) ownership of the available knowledge products.

United Nations Framework Convention on Climate Change

8. Article 4.5 of the United Nations Framework Convention on Climate Change (UNFCCC) stipulates that the developed country Parties and other developed Parties included in Annex II to the UNFCCC shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention. In this process, the developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties. Other Parties and organizations in a position to do so may also assist in facilitating the transfer of such technologies. These are echoed in similar provisions under the Kyoto Protocol (Article 10 c).

9. In the context of the Convention, technology transfer is defined as "…a broad set of processes covering the flows of know-how, experience and equipment for mitigating and adapting to climate change amongst different stakeholders such as governments, private sector entities, financial institutions, non-governmental organizations (NGOs) and research and education institutions…" . The definition includes a wide range of activities and extends to a broad array of institutions. The Technology Mechanism consists of an Executive Committee and a Climate Technology Centre and Network (CTCN). Additionally, and as part of the Marrakesh Accords, at COP 7 Parties agreed to the Technology Transfer Framework, a set of technology transfer activities for meaningful and effective actions to enhance the implementation of Article 4.5 of the Convention, collectively named the Poznan Strategic Programme on Technology Transfer.

10. The CTCN, connected to the Convention's technology clearing house information system[4], is accountable to the Conference of the Parties through an Advisory Board that provides guidance and approves certain functions of the CTCN. The Centre (CTC) is hosted by UNEP and UNIDO as a small and cost-effective helpdesk responsible for the overall coordination and development of the Climate Technology Network (CTN). Its main attributions are to support National Designated Entities (NDEs) and the work of the Advisory Board. The network's members are leading international institutions ("centres of excellence") and criteria for their membership were approved by the Advisory Board at its second meeting in September 2013, to be revised and reviewed once the CTCN is fully operational[5]. They are:

[3] The process and its preliminary results are reported in http://www.unccd.int/COP%20Side%20Event%20Documents/1%20SKBP%20Side%20Event%20Presentation_FINAL_Testing%20[Compatibility%20Mode].pdf

[4] TT:CLEAR, http://unfccc.int/ttclear/pages/home.html

[5] http://unfccc.int/ttclear/sunsetcms/storage/contents/stored-file-20140121143625200/CTCN%20network%20criteria_19%20Sept%202013_logo.pdf

- To be a national technology centre or institution designated by a Party;
- To be recognized by the Advisory Committee as a regional climate technology centre or network (i.e. to be an intergovernmental, international, regional or sector organization, partnership or initiative that contributes to technology deployment and transfer and has a demonstrated capability in the development, transfer and deployment of climate technologies applicable for developing countries, including expertise in policy, capacity-building and /or investment).

11. The Climate Change Initiative[6] has published several reference publications and guidelines, whose approach could be adapted for potential use in the context of the CBD, including:

- "*Methods for Climate Change Technology Transfer Needs Assessments and Implementing Activities: Developing and Transition Country Approaches and Experiences*" (March 2002),[7]
- a guidebook on preparing and presenting technology transfer project proposals for financing prepared in 2006 by the Convention's Adaptation, Technology and Science Programme;[8]
- Additionally, in 2010, UNDP produced a Handbook for Conducting Technology Needs Assessment for Climate Change;[9]
- In January 2012, the Secretariat launched a Guidebook on Barrier Analysis and Enabling Framework.

Intergovernmental Platform on Biodiversity and Ecosystem Services

12. The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)[10] was established in April 2012, as an independent intergovernmental body open to all member countries of the United Nations. IPBES provides a mechanism to synthesize, review, assess and critically evaluate relevant information and knowledge generated worldwide by governments, academia, scientific organizations, non-governmental organizations and indigenous communities. IPBES aims to address the needs of all Multilateral Environmental Agreements related to biodiversity and ecosystem services, and builds on existing processes ensuring synergy and complementarities.

13. The United Nations Development Programme (UNDP) was requested, through the Busan Outcome of IPBES in 2010, to play a special role in developing capacity to support the Platform. To this end, UNDP has collaborated with the Norwegian Environment Agency and the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP-WCMC) for the establishment of a capacity-building network (BES-Net portal) to facilitate exchanges between science, policy and practice that lead to better decisions for biodiversity and ecosystems management. The web portal aims to help develop individual and organizational capacity, and will be combined with face-to-face events such as regional dialogues linking science, policy and practice.

The International Council for Science

[6] The Climate Technology Initiative (CTI) is a multilateral initiative, established at the first Conference of Parties to the UNFCCC in 1995 and working closely with the UNFCCC process. In 2003, the CTI gained a new status as an International Energy Agency (IEA) Implementing Agreement.

[7] http://unfccc.int/ttclear/sunsetcms/storage/contents/20121024142201401/Tech%20Transfer%20Guidelines-12%20_final_.pdf.

[8] http://unfccc.int/resource/docs/publications/pract_guide_06_en.pdf.

[9] http://unfccc.int/ttclear/sunsetcms/storage/contents/stored-file-20130321154847356/TNA_Handbook_Nov2010.pdf.

[10] http://www.ipbes.net/about-ipbes.html. A note by the Executive Secretary (UNEP/CBD/COP/11/19/Add.1) provides guidance on interactions between the CBD and IPBES.

14. The International Council for Science (ICSU)[11] is a non-governmental organization with a global membership of national scientific bodies (121 Members, representing 141 countries) and International Scientific Unions (31 Members). ICSU has three regional offices Africa, Asia and the Pacific and Latin America and the Caribbean. The offices support scientific networks in their regions and facilitate the participation of scientists from developing countries in the activities of ICSU and its Members. ICSU works at the intersection of science and policy, to ensure that science is integrated into international policy development and that relevant policies take into account both scientific knowledge and the needs of science. Its interdisciplinary bodies include: Biodiversity (DIVERSITAS); Scientific Committee on Antarctic Research (SCAR); the World Climate Research Progamme (WCRP); the Committee on Data for Science and Technology (CODATA); Integrated Research on Disaster Risk (IRDR); Ecosystem Change and Society (PECS); International Geosphere-Biosphere (IGBP); the International Human Dimensions Programme on Global Environmental Change (IHDP); and the ICSU World Data System (WDS). The bodies above or individual academics have been involved in technical and scientific cooperation and technology transfer related to biodiversity in various ways.

Global Biodiversity Information Facility

15. The Global Biodiversity Information Facility (GBIF)[12] is an international open data infrastructure, funded by governments and served by a secretariat that focuses on making scientific data on biodiversity available via the Internet. The GBIF has provided global-scale species occurrence information freely and openly accessible by establishing 52 national nodes and collaborating with 37 scientific institutes and organizations. Under the governance of participating countries and institutions, the GBIF provides seed-funding for capacity development in biodiversity-related information technology. The GBIF has made a major contribution to the implementation of the Global Taxonomy Initiative, with strong support from natural history museums and botanical gardens where vouchered specimens of animals, plants and micro-organisms are maintained and digitized.

International Barcode of Life

16. Over 100 institutions from 30 developed and developing countries participate in the International Barcode of Life (iBOL).[13] Through iBOL, DNA barcoding technology has been transferred to national taxonomic institutions to conduct biodiversity research, education and support for conservation at the national and regional levels. The iBOL has developed a DNA barcoding library with sample specimens that can strengthen Parties' capacity for species identification and discovery of new and cryptic species of animals, plants and fungi. An open-access barcode reference library called the Barcode of Life Data Systems (BOLD) can be accessed by anyone in any setting using a hand-held device. The technology is increasingly used in forensics, *in-situ* species monitoring, detection of invasive alien species, pests and disease-causative agents, food inspection, and quarantine measures that require species identification.

Global Genome Biodiversity Network

17. The Global Genome Biodiversity Network (GGBN) [14] was formed in 2011 with the principal aim of making high-quality well-documented and vouchered collections of DNA or tissue samples available for research. This is achieved through the GGBN Data Portal (http://data.ggbn.org), which links globally distributed databases and bridges the gap between biodiversity repositories, sequence databases and research results. Advances in DNA extraction techniques combined with next-generation sequencing technologies provide new tools for genome sequencing. Many ambitious genome sequencing projects

[11] http://www.icsu.org.

[12] http://www.gbif.org/

[13] http://ibol.org/

[14] http://ggbn.org/

with the potential to revolutionize biodiversity research consider difficulties in access to adequate samples to be a major constraint to their work. This is compounded by accelerating biodiversity loss and by a lack of standardized methods for providing access to genomic samples. Biodiversity biobank-holding institutions urgently need to set a standard of collaboration towards excellence in collections stewardship, information access and sharing and responsible and ethical use of such collections. GGBN meets these needs by enabling and supporting accessibility and the efficient coordinated expansion of biodiversity biobanks worldwide.

Global Biological Resource Centre Network

18. The Global Biological Resource Centre Network (GBRC) connects participating members of the World Federation for Culture Collections (WFCC), the Asian Consortium for the Conservation and Sustainable Use of Microbial Resources (ACM) and the European Culture Collection Organization (ECCO). GBRC helps improve efficiency in setting up and offering, to scientists, the use of collections of living biological materials and legitimate collection and distribution of living biological materials, including cells, tissues and genetic materials of animals, plants and microorganisms. The projects include capacity development of African experts in the isolation, identification, conservation, understanding and utilization of Africa's microbial diversity, and in particular, to establish enabling policy, expertise and facilities for research on Africa's microorganisms.

Global Invasive Alien Species Information Partnership

19. The Global Invasive Alien Species Information Partnership (GIASI Partnership) was launched in the margins of the eleventh meeting of the Conference of the Parties to the Convention, when major invasive alien species data providers signed a Memorandum of Cooperation with the Secretariat of the CBD. The GIASI Partnership is intended to support Parties who are committed to the effective implementation of Article 8(h) and Aichi Biodiversity Target 9 on invasive alien species, and the various decisions of the Parties pertaining to the prevention, eradication, and control of invasive alien species. Major data providers that disseminate invasive alien species information include global data providers, for example the Global Invasive Species Database of IUCN-Invasive Species Specialists Group, and the CABI[15] Invasive Species Compendium. With funding support from the European Union, the GIASI Partnership has organized technical meetings to implement inter-operable data-sharing systems and plans to showcase a data-sharing architecture at the twelfth meeting of the Conference of the Parties.

The United Nations University and academic networks

20. The United Nations University (UNU)[16] is a global think tank and postgraduate research organization headquartered in Japan. Its mission is to contribute, through collaborative research and education, to efforts to resolve the pressing global problems of human survival, development and welfare that are the concerns of the United Nations, its peoples and Member States; it also focuses on biodiversity research and extension on the global, regional and national scales. In carrying out its mission, UNU works with leading universities and research institutes in United Nations Member States, functioning as a bridge between the international academic community and the United Nations system.

21. Regional universities, such as the University of the West Indies and the University of the South Pacific, play complementary roles in capacity-building and support to small island developing States, as do some mainland institutions in least developed countries in Eastern Africa, such as the United Republic of Tanzania (Sokoine University of Agriculture), Uganda (Makerere University) and Ethiopia (Jimma University). All of these learning and research institutions usually have long-term triangular linkages to prominent universities in the United States, Europe, Australia and New Zealand and now increasingly

[15] CABI is an inter-governmental, not-for-profit organization formerly known as Commonwealth Agricultural Bureaux International.

[16] http://unu.edu/about/unu

with counterpart universities in pivotal and emerging developing countries. The University of Oxford, for instance, cooperates with the Universities of Belize, Guyana and Suriname and the University of the West Indies in Trinidad to offer an online graduate degree in Biodiversity Conversation and Sustainable Development in the Caribbean, geared towards building and strengthening capacity in environmental management, biodiversity and sustainability issues in the region.

UNEP and the 10YFP[17] – Global action for sustainable consumption and production

22. UNEP is the leading agency for the environment within the United Nations system and a natural partner for CBD Parties in implementing technical and scientific cooperation. Among the areas UNEP's work of relevance to biodiversity is its work on Sustainable Consumption and Production. At the 2012 Rio+20 Conference, Heads of State strengthened their commitment to accelerate the shift towards sustainable consumption and production (SCP) patterns with the adoption of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP) – as stated in paragraph 226 of the Rio+20 Outcome Document "The future we want". Acting as the secretariat for the 10YFP, UNEP can assist Parties in enhancing international cooperation to promote SCP. The framework, supported by a Board of 10 rotating national Governments and an Inter-Agency Coordinating body of 19 United Nations agencies, facilitates access to technical and financial assistance for developing countries and aims at developing, replicating and scaling up SCP and resource efficiency initiatives at national and regional levels, thus decoupling environmental degradation and resource use from economic growth, and increasing the net contribution of economic activities to poverty eradication and social development. Activities are initially focused around six sectors/programmes,[18] with the intention of adding others. Interested actors from all countries can be involved in the implementation of the 10YFP activities: government, private sector, civil society, researchers, United Nations agencies, financial institutions, and other major groups.

The United Nations Office for South-South Cooperation and the Global South-South Development Expo

23. The United Nations Office for South-South Cooperation (UNOSSC) supports technical and scientific cooperation among developing countries. The first pillar of its structure is the Global South-South Development Academy, an online platform through which hundreds of Southern development solutions and experts have been identified and codified. The second pillar, the Global South-South Development Expo (GSSD), serves to showcase selected successful development solutions annually at its United Nations system-wide event, bringing together development practitioners and representatives of the United Nations system, governments, the private sector and civil society. Last year's GSSD, hosted by UNEP in Nairobi, Kenya (the first time in a developing country), had 1,000 participants, 21 CEOs of multinational corporations from the South, 26 United Nations agencies and a strong Chinese presence (10% of all international participants), with more than 85% of the Expo's US$ 425 million of tracked development and aid deals happening between China and diverse African players on port infrastructure, trade-related issues, agriculture, forestry and fisheries. The third pillar, the South-South Global Assets and Technology Exchange, facilitates the transfer of proven Southern development solutions through its physical and Internet-based platform, matching Southern solution seekers and providers for the transfer of technologies, development solutions and financing within a secure environment.

UNESCO and its academic chairs programme

[17] http://www.unep.org/10yfp/.

[18] The six are: consumer information; sustainable lifestyles and education; sustainable public procurement; sustainable buildings and construction; sustainable tourism, including ecotourism, and sustainable food systems. For more information see http://www.unep.org/10yfp/Programmes/ProgrammeConsultationandCurrentStatus/tabid/129606/Default.aspx.

24. The United Nations Educational, Scientific and Cultural Organization (UNESCO) has developed several networks and mechanisms for technical and scientific cooperation. One example is work related to the World Heritage Convention and its associated Centre, to assist in the governance and management of natural or cultural sites. The UNESCO World Network of Biosphere Reserves is another example, which covers internationally designated protected areas known as biosphere reserves, meant to demonstrate a balanced relationship between people and nature encouraging sustainable development.

25. Another significant example is the UNITWIN/UNESCO Chairs Programme created in 1992 that promotes international inter-university cooperation and networking to enhance institutional capacities through knowledge sharing and collaborative work. UNESCO Chairs are think tanks and bridge builders between the academic world, civil society, local communities, research and policymaking, strengthening North-South, South-South and North-South-South cooperation.[19] Today, there are 762 UNESCO Chairs and 69 UNITWIN Networks involving 850 institutions in 134 countries.

26. The Biosphere Reserves partnership is a convenient and innovative association through which the academic world is bridged to actions implemented in Biosphere Reserves, transferring scientific knowledge to society. One example is the UNESCO Chair on South-South Cooperation for Sustainable Development of the Federal University of Para, Brazil, which supports sustainable rural development and biodiversity conservation in the Biosphere Reserves of the Amazon.

B. Regional processes and mechanisms that support technical and scientific cooperation related to biodiversity

Regional island challenges and GLISPA

27. According to feedback from SBSTTA delegates and participants at several recent CBD capacity-building workshops[20] interviewed for this report, technical and scientific cooperation in the South often has more momentum and is more effective when partners share strong regional and cultural affinities. This is particularly true of the Parties that share custodianship of common ecoregions. One good example of this are the "communities of practice" in the Caribbean Challenge Initiative (CCI)[21] and the Coral Triangle Initiative (CTI)[22], also launched to bring small island developing States together to develop cooperation frameworks. Other challenge initiatives include the Micronesia Challenge, led by the Federated States of Micronesia, and the upcoming West Indian Ocean Coastal Challenge, led by the Seychelles, all of which have benefited from the support by the Global Islands Partnership (GLISPA)[23] as a matchmaking platform promoting worthwhile technical and scientific cooperation projects and programmes.

ASEAN Centre for Biodiversity and the ASEAN-China Alternative Livelihoods project

28. The ASEAN Centre for Biodiversity (ACB)[24] was launched by its 10 Member States at the 9th Informal ASEAN Ministerial Meeting on 27 September 2005. The agreement also established the ASEAN Biodiversity Fund with voluntary contributions of the ASEAN Member States, other governments and organizations, as approved by the Governing Board. ACB facilitates cooperation and coordination among the ASEAN Member States and with relevant national government, regional and international organizations, on the conservation and sustainable use of biological diversity and the fair and equitable sharing of benefits arising from the use of such biodiversity in the ASEAN region.

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[19] www.unesco.org. Accessed in 19/02/2013.

[20] http://www.cbd.int/nbsap/workshops2.shtml.

[21] http://www.cbd.int/doc/nbsap/nbsapcbw-car-02/nbsap-st-george's-tnc.pdf.

[22] http://www.coraltriangleinitiative.org/. CTI-CFF is a multilateral partnership to address the urgent threats facing the coastal and marine resources of one of the most biologically diverse and ecologically rich regions on earth.

[23] http://glispa.org/.

[24] http://www.aseanbiodiversity.org/.

29. One example of the Centre's contribution is its cooperation on Alternative Livelihoods for Biodiversity Conservation.[25] The Alternative Livelihood "solution" was developed as an ASEAN regional initiative to enhance the biodiversity conservation in China and Southeast Asia. The initiative was led by the China-ASEAN Environmental Cooperation Centre (CAEC) and the Ministry of Environmental Protection of China. The initiative targeted four priority areas: biodiversity conservation, environmental management capacity building, environmental goods and services, and global environmental issues. Objectives of pilot projects are threefold: (a) Experience Sharing and Capacity Building, a component aiming to develop and enhance the human and institutional capacity of the governments of member States and China in conserving and sustainably managing their biodiversity, and in meeting their commitments as parties to various MEAs and other cooperation programmes between AMS and China; (b) Enhancement of Public Awareness, a component focusing on information dissemination and mainstreaming of knowledge in the public awareness campaigns; and (c) promoting effective ways to address poverty reduction.

30. Some key components can be identified as contributing to its success: sustained financing sources and sound operational mechanisms; partnership with stakeholders; ; activities match market needs and are also encouraged or strongly supported by public policies; and there is a focus on capacity building and raising awareness. The project's capacity building activities include manuals on good practices on biodiversity and ecological conservation and personnel exchanges between and among ASEAN Member States and China.

Secretariat of the Pacific Regional Environment Programme

31. The Secretariat of the Pacific Regional Environment Programme (SPREP), based in Apia, Samoa, with over 90 staff, coordinates the policies, programmes and activities of 26 governments and administrations of the Pacific region[26] on the protection and sustainable use of the region's environment. These vital resources and ecosystems are under ever-increasing pressure as islands strive to address their economic aspirations and meet the needs of their growing populations. One of their strategic priorities is to address biodiversity and ecosystems management. SPREP focuses on providing technical and advisory support to Members in designing and implementing national biodiversity strategic action plans (NBSAPs), and their equivalents in territories. The effective implementation of international agreements, and support to joint regional programmes and policies are SPREP's priorities, for instance through its Action Strategy for Nature Conservation, the Guidelines for Invasive Species Management in the Pacific, the Pacific Islands Regional Marine Species Programme, a Regional Shark Action Plan, the Oceania Humpback Whale Recovery Plan and the Pacific Islands Regional Guidelines for Whale and Dolphin Watching. SPREP has regular biannual work plans and memorandum of cooperation with the Secretariat.

Regional Conventions and the Regional Seas Programme

32. The Regional Seas Programme is one of UNEP's most significant achievements. Today, more than 143 countries participate in 13 Regional Seas programmes established under the auspices of UNEP: Black Sea, Wider Caribbean, East Asian Seas, Eastern Africa, South Asian Seas, ROPME Sea Area, Mediterranean, North-East Pacific, North-West Pacific, Red Sea and Gulf of Aden, South-East Pacific, Pacific, and Western Africa. The programmes are coordinated by UNEP's Regional Seas Branch based at the Nairobi Headquarters. Regional Coordination Units (RCUs), often aided by Regional Activity Centres

[25] This case study was developed after a UNEP/SCBD coordinated participation in GSSD 2102 in Vienna.

[26] Members are American Samoa, Australia, Commonwealth of the Northern Mariana Islands, Cook Islands, Micronesia (Federated States of), Fiji, France, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, United Kingdom of Great Britain and Northern Ireland, United States of America, Vanuatu, and Wallis and Futuna.

(RACs) oversee the implementation of the programmes and aspects of the regional action plans such as marine emergencies, information management and pollution monitoring.

33. Some Regional Seas programmes have binding regional agreements, such as the 1983 Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention). The Convention has been supplemented by three protocols addressing specific environmental issues namely oil spills, land-based sources and activities of marine pollution, and the Protocol concerning Specially Protected Areas and Wildlife (SPAW). The Caribbean CAR/RCU serves as the secretariat to the Conventions and protocols. The SPAW Protocol has been internationally recognized as the most comprehensive treaty of its kind. Adopted in Kingston, Jamaica, the Protocol preceded other international environmental agreements in utilizing an ecosystem approach to conservation and entered into force on 18 June 2000. The Protocol acts as a vehicle for assisting with regional implementation of the CBD. The Protocol also promotes linkages with the Ramsar and CITES Conventions. UNEP's CAR/RCU has been an ongoing partner to the Secretariat of the CBD and to GLISPA in capacity-building and exchanges.

34. Other regional multilateral environmental agreements carry out activities for technical and scientific cooperation relevant to the CBD. The Bern Convention is a binding international legal instrument in the field of nature conservation, which covers most of the natural heritage of the European continent and extends to some States of Africa. As an example, the Bern Convention created a specialized "Group of Experts on Invasive Alien Species". The group collected and analysed different national laws dealing with invasive species and proposed work aimed at the harmonization of national regulations on introduced species, particularly on the fields of definitions, territorial scope of regulation, listing of species whose introduction is undesirable, identification of authorities responsible for permits, conditions for issuing such permits and control involved. One of the main products of the group was the European Strategy on invasive alien species.

35. The seven Parties to the Framework Convention on the Protection and Sustainable Development of the Carpathians[27] signed a protocol in 2011 on sustainable tourism that uses as its basis the Convention on Biological Diversity Guidelines on Biodiversity and Tourism Development. Article 26 of the Forestry Protocol under the Carpathian Convention promotes the integration of the CBD Guidelines on Biodiversity and Tourism Development in the development or review of their strategies and plans for tourism development in the Carpathians. Additionally, Parties to the Carpathian Convention committed themselves to promoting synergies related to the CBD Guidelines with the Aarhus Convention, the Ramsar Convention, the Convention on Migratory Species, the World Heritage Convention, the United Nations Framework Convention to Combat Climate Change, the European Landscape Convention and others.

C. National institutions and international networks to support technical and scientific cooperation

36. National centres and institutions can also serve as partners for technical and scientific cooperation under the Convention, as they can contribute to, or animate, global programmes and networks of expertise in a determined field. This section describes two international networks of national institutions and provides examples of the work of some of their members.

Consortium of Scientific Partners on Biodiversity

37. The Consortium of Scientific Partners on Biodiversity (CSP)[28] is a network created by the Executive Secretary in 2006 at the margins of the eighth meeting of the Conference of the Parties, aiming to leverage the expertise and experience of leading national technical and scientific institutions to carry

[27] Czech Republic, Hungary, Poland, Romania, Serbia, Slovakia and Ukraine.

[28] http://www.cbd.int/cooperation/csp/.

out education and training activities to support developing countries to build scientific, technical and policy skills in the area of biodiversity. The potential of utilizing their technical expertise is enormous and has yet to be fully explored, as noted in the last two meetings of the Consortium.

38. The CSP's original membership comprised six institutions (the Royal Botanic Gardens in Kew, the Smithsonian National Museum of Natural History, the Muséum National d'Histoire Naturelle de France, the Royal Belgian Institute of Natural Sciences, the National Commission for Wildlife Conservation and Development of the Kingdom of Saudi Arabia, and the German Federal Agency for Nature Conservation). Membership has expanded to include institutions with a range of profiles and purposes.

39. Three of the consortium members from developing countries, with examples of relevant projects in compiling and organising biodiversity-relevant information for decision making, are described below.

The Alexander von Humboldt Biological Resources Research Institute, Colombia – land-use planning and prioritization of key areas for biodiversity conservation in concession areas of the Colombian Oil Company (Ecopetrol)

40. The Alexander von Humboldt Biological Resources Research Institute is a regionally prominent centre affiliated with the Colombian Ministry of Environment and Sustainable Development, conducting research on biodiversity including genetic and aquatic resources, coordinating national and regional inventories of biodiversity and influencing biodiversity and ecosystem-related policies and programmes.

41. Researchers from the Humboldt Institute carried out a pioneering multi-stakeholder land-use planning exercise with the Colombian state oil company, 'Ecopetrol', to prioritise key areas for biodiversity conservation in Ecopetrol's operational areas as well as to restore and rehabilitate landscapes. Humboldt's technical competences and credibility with the scientists and experts, as well as community stakeholders and public agencies, facilitated transparent engagements and reaching consensus. The project's first phase is concluded, with next steps extending its reach to other regions in Colombia.

The Southern African National Biodiversity Institute – innovative partnerships for landscape conservation from South Africa's Grasslands Programme

42. The Southern African National Biodiversity Institute (SANBI) is South Africa's leading biodiversity-related institution. Its Grasslands Programme addresses two of the strategic goals of the Strategic Plan for Biodiversity 2011-2020, namely Goal A on mainstreaming and Goal D to enhance the benefits to all from biodiversity and ecosystem services. This approach brings together diverse players in partnerships within and beyond the boundaries of protected areas to manage a mosaic of land uses, including protection, restoration, production and subsistence use.

43. As part of the project, a partnership with South Africa's forestry sector has generated innovative solutions to preserve biodiversity and quality of land while ensuring development benefits. These include tools for identifying biodiversity priority areas for land use planning and a certification approach tailored to the needs of small growers in the forestry sector, resulting in increased market opportunities for small growers in the forestry sector. SANBI was instrumental in the process of developing shared objectives because the organization was seen as being able to bring stakeholders into a neutral space with no bias for any particular stakeholder group, and had a mandate to influence policy as well as an excellent scientific track record.

The National Biodiversity Institute (Costa Rica) – promoting exchanges on the use of non-timber forest products between Costa Rica, Bhutan and Benin

44. The National Biodiversity Institute (INBio) of Costa Rica is a non-governmental, non-profit, public interest organization of civil society that generates, collects, processes and shares biodiversity information using either open-source platforms or Web portals such as GBIF (see above). It works in close collaboration with different government institutions, universities, the private sector and other public

and private organizations, both within and outside Costa Rica. Established in 1989, INBio has offered assistance in 45 countries and currently collaborates with institutions in 22 Parties to the CBD.

45. One example is a tripartite cooperation project, financed by the Netherlands, with institutions from Benin and Bhutan on research, gathering, domestication, cultivation and marketing of high valued non-timber forest products (mushrooms and insects) as part of climate change adaptation strategy and food security. As a result, Bhutan partners were able to develop and exchange data and genebanks on relevant species and establish a biodiversity information system and Benin is in the process of implementing its own platform. Among the factors for its success, INBio lists political support, leadership and vision, a commitment to innovation, a diversified portfolio of activities and strategic alliances with governmental, academic and private players. This project was recognized with the UNOSSC GSSD Expo 2012 award for innovation.

Botanic Gardens Conservation International (BCGI)

46. Another example of a global network of national institutions is BGCI,[29] a plant conservation charity based in Kew, London, England. BCGI brings together 800 botanic gardens in 118 countries, whose combined work forms the world's largest plant conservation network. It was established in 1987 as a small secretariat under the auspices of the International Union for the Conservation of Nature (IUCN).The South African branch of this cooperation (coordinated by SANBI) hosts a botanic garden reaching out to its peers in Uganda and Cameroon.[30] Such global and regional networks can support data and information exchange, capacity-building through regional workshops and now increasingly the application of distance learning tools.

D. Cooperation at the sub-national level

47. Subnational and local authorities, and the technical and scientific agencies they support, have a key role to play not only in effecting change at the local level, but also through decentralized cooperation and other cooperative arrangements and networks. Parties to the Convention have recognized the important contribution that can be made by subnational entities towards national goals. The Secretariat has therefore been supporting the development of capacity for subnational implementation of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets. This includes through cooperation with ICLEI – Local Governments for Sustainability, and through the nurturing of partnerships between subnational authorities with common characteristics, such as the "Maritime Innovative Territories International Network". Information on these two examples is provided below.

ICLEI – Local Governments for Sustainability

48. ICLEI – Local Governments for Sustainability is the world's leading association of cities and local governments dedicated to sustainable development, bringing together 12 mega-cities, 100 super-cities & urban regions, 450 large cities, and 450 small and medium-sized cities and towns in 84 countries in a network dedicated to sustainable development. Since 2007, ICLEI has cooperated with the Secretariat of the CBD on subnational implementation of the Convention, and since 2011 has seconded a staff to the Secretariat to assist Parties to promote local action for global sustainability and support their cities to become resilient, resource-efficient, biodiverse and low-carbon, and to develop inclusive, green approaches to urbanization. They have developed several programmes to support local-level sustainability and continue to develop innovative new programs to respond to issues of international concern. Within its structure, the ICLEI Cities Biodiversity Center established in Cape Town, South Africa, has a global mandate to work on biodiversity-related matters. The Center has a dedicated team of biodiversity experts and offers local governments a broad portfolio of supportive services, including capacity development

[29] http://www.bgci.org/

[30] http://www.bgci.org/ourwork/bgciafrica/

and up-skilling, technical advice, advocacy support, networking forums, profiling of achievements and conference organization.

49. Local Action for Biodiversity (LAB) is a unique global biodiversity programme run by the ICLEI Cities Biodiversity Center as part of ICLEI's options for biodiverse cities.[31] Established in 2006 as a pilot program with 21 pioneering local governments from across the globe, the LAB Program has expanded to include most of the members of the CBD's Advisory Committee of Cities (such as the cities of Curitiba, Montreal, Bonn, Nagoya and Hyderabad) as well as numerous local governments and additional focus areas, including communication, education and public awareness (CEPA) and climate change, aimed at tackling the complex challenges facing local biodiversity management. Due to the success of the LAB pilot phase, LAB continues to take new Pioneer local governments through the 5-step process to improve and enhance their biodiversity management, building upon the solid foundation laid by the original Pioneers. The LAB Program also focuses on developing a local government network for biodiversity action. This network has been instrumental in promoting a better understanding of local government biodiversity issues, leading to the implementation of appropriate measures within local governments worldwide.

Maritime Innovative Territories International Network – MITIN

50. Taking into account the increasing role of the oceans in the global economy and the concept of "blue growth", some port cities, with their associated scientific institutions, united to form the Maritime Innovative Territories International Network - MITIN. Together, they aim at improving the sustainable use of the oceans and strengthen the political will to work with economic stakeholders in this domain. This initiative, launched in July of 2012, is led by the urban conglomerate of Brest-Metropole Oceane, France, with the support of the Secretariat of the Convention on Biological Diversity. The objectives of the network are:

- To analyse the conditions as well as opportunities opened by sustainable development strategies of the maritime economy
- To develop knowledge of the marine world and the human skills required for a sustainable exploitation of maritime resources
- To act towards the goals of a blue growth, by exploiting the collective strength, knowledge and skills of an international multidisciplinary network
- To promote the concept of a blue growth by maritime communities and to sustain or contribute to the actions undertaken by international institutions working towards the same goal

51. MITIN members have launched its web-based platform[32] dedicated to Marine Biodiversity. This initiative is closely related to the Marine and Coastal Biodiversity Programme and the Sustainable Ocean Initiative supported by the Secretariat of the Convention on Biological Diversity.

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[31] http://www.iclei.org/index.php?id=37&L=7#c1538

[32] http://www.mitin-network.org/