

Achieving Better Synergies among the Biodiversity Cluster Multilateral Environmental Agreements at the National Level in India – Review and Policy Options

Report on the thematic area:
**Interface with Other
Multilateral Environmental
Agreements and
Organisations**



Centre for Biodiversity Policy and Law
National Biodiversity Authority

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Contents

Achieving Better Synergies among the Biodiversity cluster Multilateral Environmental Agreements at the National Level in India

List of Abbreviations used	1
Scope	2
Rationale	2
1.0 The CBD mandate to strengthen biodiversity-cluster MEA synergies	3
1.1 Scope for synergy: UNEP-CBD guidance and linkages to existing..... National Actions	5
2.0 Biodiversity Cluster MEAs and their Implementation in India – a brief overview	6
2.0.1 Ramsar Convention	6
2.0.2 CMS	8
2.0.3 CITES	9
2.0.4 The World Heritage Convention.....	10
2.0.5 ITPGRFA.....	10
2.0.6 IPPC	11
3.0 Possible ‘clustering’ of BLG-MEAs in the Indian context	22
3.1 Cluster I: Implementation and Synergies of the CBD, Ramsar and CMS conventions in India	22
3.1.1 Ramsar Implementation in India	23
3.1.2 Key elements to focus on in order to strengthen synergies	28
around SDGs, CEPA and Capacity Building	

3.1.3	Policy Options to strengthen synergies around SDGs, CEPA and Capacity Building	29
3.2	Cluster II. Strengthening synergies around all ‘site-based’ MEAs: Ramsar, WHC Natural Heritage Cites, Important Bird Areas (*of relevance to CMS) as well as CITES-flora species for and through Medicinal Plants	31
3.2.1	Medicinal Plants Conservation Areas in India as an avenue to strengthen MEA synergies	31
3.2.2	Policy Options to strengthen synergies among site-based MEAs with an emphasis on SDGs - a strategy centred on medicinal plant botanicals	39
3.3	Cluster III: Synergies between the ITPGFRA and CBD.....	41
4.0	Conclusions	41
5.0	Persons who served as discussants in connection to this document.....	43
6.0	List of Annexures.....	59
7.0	Select References	99



List of Abbreviations

CBD - Convention for Biological Diversity

CoP - Conference of Parties

CITES - Convention on International Trade in Endangered Species of Wild Fauna and Flora

CMS - Convention on the Conservation of Migratory Species of Wild Animals

EDC - Eco-development Committee

ENVIS - Environmental Information System

GEF - Global Environment Fund

ITPGRFA - International Treaty on Plant Genetic Resources for Food and Agriculture

IPPC - International Plant Protection Convention

JFMC - Joint Forest Management Committee

MEA - Multilateral Environmental Agreement

MoEFCC - Ministry of Environment, Forest and Climate Change

NBAP - National Biodiversity Action Plan

NMPB - National Medicinal Plant Board



PA - Protected Area

PGRFA - Plant Genetic Resources for Food and Agriculture

SDGs - Sustainable Development Goals

TK - Traditional Knowledge

TM - Traditional Medicine

UNEP - UN Environment

VFC - Village Forest Committee

WB - World Bank

WCMC - World Conservation Monitoring Centre

WHC - World Heritage Convention

WHO - World Health Organisation

Scope

1. Review of Biodiversity related MEAs and their implementation in India based on grey-literature/ website information/ reports available.
2. Proposing practical 'next steps' and project ideas emerging from the diverse approaches suggested at the global and national level for achieving synergistic action among them. These 'options for synergies' were informed by consultations with cooperating institutions and experts. These take into account logical inter-linkages between agreements and processes to enhance their effectiveness and better implementation at the national level.
3. Focusing the options on issues that need to be addressed with regard to the policy frameworks currently available – especially the SDGs, Strategic Plan, Aichi Targets and NBAP.



Rationale

This review and policy options document on Strengthening MEA synergies is intended to aid planning for more synergised action at the national level on possible Biodiversity-cluster MEA synergies. MEA synergies in this cluster, with the Convention on Biological Diversity articulating and initiating the need for the same, is intended to strengthen biodiversity conservation and sustainable use objectives. CBD has been engaged in and supporting participatory consultative process to develop guidance for parties on strengthening synergies alongside UNEPs MEA division and WCMC in particular, and in leveraging this guidance through its CoP Processes. Identifying the areas where this guidance developed at the international lends itself to adaptation at the national level, informs the focus on this report. The cooperating conventions include, besides the CBD and its protocols, Convention on Wetlands/Ramsar Convention, Convention on the Conservation of Migratory Species of Wild Animals (CMS), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), World Heritage Convention (WHC), International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and International Plant Protection Convention (IPPC).

As Moore and Tymowski (2006) have elucidated, as one of the major treaties opened for signature at the UN conference on Environment and Development in 1992, the CBD has served to underline a comprehensive rather than sectoral approach to biodiversity and its centrality for development (as resource base and provider of life-sustaining and economy supporting ecosystem services and functions). The CBD is oriented around three principles – conservation, sustainable use and equitable sharing of benefits arising from the use of genetic resources. Whilst conservation and sustainable use have been more traditional foci in the biodiversity sector, it was primarily the newness of benefit-sharing that impelled domestic legislation in India in the form of the Biodiversity Act. For the same reason, as a framework convention that leaves it up to the parties to determine how most of its provisions (expressed largely as shared goals and objectives, rather than precise obligations), MEA synergies (over and beyond the provisions of the CBD as translated by India's BD Act) offer an important area for careful and creative consideration, especially in service of sustainable use and conservation goals, in order to make country-level commitment to these more substantive.



Many different environmental legislations exist in India that are cited in relation to, or less frequently have been amended to meet the international obligations that India has become party to under various biodiversity-cluster MEAs. These include: The Forest Act (1927), The Wildlife (Protection) Act (1972), Amended 1992; Forest (Conservation) Act (1980), Environment Impact Assessment Notification (1994); National Environment Appellate Authority Act (1997); Environment (Protection) Act 1986; National Environment Tribunal Act (1995), Protection of Plant Varieties and Farmers' Rights Act (2001), The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act (2006) and Wetland (Conservation and Management) Rules 2017.

These legal frameworks notwithstanding, vis-à-vis the environment and development interface, a large network of powerful institutions have a say in issues of biodiversity as well. In addition to MoEFCC, the Ministry of Agriculture is responsible for, inter alia, domesticated biodiversity, fisheries, issues relating to shifting cultivation. Other departments and ministries at the central level are the Department of Science and Technology, Ministry of Rural Development (regeneration of biomass outside recorded forest areas), Ministries of Power and Non-Conventional Energy Sources, Ministry of Water Resources (water quality and monitoring), and Ministry of Commerce (trade related aspects of biological resources) (Taneja, 2002).

At the intersection of various domestic laws, and predominantly economic imperatives of diverse stakeholders that shape action on the ground in relation to biodiversity; the space for a discourse on Sustainable Development Goals, which succinctly and with global consensus summarise wise-use of natural resources, is a matter of both challenge and possibility. The programmatic aspects of the Strategic Plan for Biodiversity, Aichi Targets and India's National Biodiversity Action Plan¹ are closely aligned to the SDGs. Review and compilation exercises and related guidance/ pronouncements that the CBD has made in relation to avenues for MEA synergies around these and other framework guidance tools

¹ Article 6 of the CBD and Section 36 of the BD Act call for national strategies, plans and programmes for conservation and sustainable use of BD and its integration across sectors, in pursuance of which the NBAP development process got underway. The NBAP is in consonance with the National Environment Policy (2006) and was approved by Cabinet on 6th Nov 2008.



in diverse national contexts, deem this possible, and hence this effort in extrapolating the guidance emanating from these processes to the Indian context. (For the details of how the BLG-MEAs find common ground through Aichi Targets –to which the Indian NBAP is also closely aligned – please see Annex 2)

As stated, seven key Biodiversity-related MEAs are already working together (at the Secretariat level) under the aegis of the CBD. Various Biodiversity-Liaison Group (BLG) MEAs, have through their respective CoP processes taken note of these development through decisions and resolutions as well. Just a couple of examples of the same is provided in Annex 3 and 4, ie: the ToR to National Focal Points of the CMS from the CMS Secretariat, and Ramsar COP13 Doc.18.7 .



1.0 The CBD mandate to strengthen biodiversity-cluster MEA synergies

Articles 6, 8 and 10 of the CBD offer both the pointers and the mandate to strengthen integration among the biodiversity cluster MEAs as a national strategy/plan or programme for biodiversity conservation and sustainable use more broadly. Ie:

Article 6. General Measures for Conservation and Sustainable Use

Each Contracting Party shall, in accordance with its particular conditions and capabilities:

- a. Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, inter alia, the measures set out in this Convention relevant to the Contracting Party concerned; and
- b. Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.

With regard to 6(a) India has been signatory to the various BD cluster MEAs from the beginning. In addition to pre-existing national policy and legal provisions with respect to the key issues covered, changes have also been made in various domestic legislation from time to time, to bring about better alignment to the objectives and spirit of these conventions, where necessary.

Government of India's Ecodevelopment program in the 1990s assisted by GEF/WB, Joint Forest Management (JFM) as per the Forest Policy of 1998, designation of Conservation and Community Reserves through an amendment to the Wildlife Protection Act, and new legislation like the Forest Rights Act; are just a few examples of relevant sectoral or cross-sectoral plans, programmes and policies integrating conservation and sustainable use perspectives in them, more broadly.



Article 8. *In-situ* Conservation

Each Contracting Party shall, as far as possible and as appropriate:

- a. Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;
- b. Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity;
- c. Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use;
- d. Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;
- e. Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas;
- f. Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, inter alia, through the development and implementation of plans or other management strategies;
- g. Establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health.
- h. Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species;
- i. Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components;
- j. Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles



relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices;

- k. Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations;
- l. Where a significant adverse effect on biological diversity has been determined pursuant to Article 7, regulate or manage the relevant processes and categories of activities; and
- m. Cooperate in providing financial and other support for in-situ conservation outlined in subparagraphs (a) to (l) above, particularly to developing countries.

As Ramsar, WHC natural heritage sites, and important birding/nesting sites of relevance for CMS are part of Indian PA network often protected inter-alia by provisions of the Indian Forest Act 1927, Wildlife Protection Act 1972, the very existence of these, by default, lend themselves to the process of better MEA synergies through the commonality of domestic legal frameworks/administrative structures where they exist, and processes/ planning frameworks and principles, that do/can/ought to guide their management. Conventions like CITES and CMS, have as their larger goal, the objective of contributing to regulation and management of endangered and threatened species of flora and fauna, whether avian, marine or terrestrial. The Cartagena Protocol, and agriculture-sector related conventions like ITPGRFA seek to protect genetic integrity of bioresources and viability of seed and plant biodiversity respectively. Species listing in the Wildlife Action Plan and newer legislation like the Wetland Act and Rules are intended to address threats to species and degradation of critical ecosystems. Thus biodiversity related MEAs and their areas of convergence are aligned to one or the other objectives of Article 8 of the CBD.

Article 10. Sustainable Use of Components of Biological Diversity

Each Contracting Party shall, as far as possible and as appropriate:

- a. Integrate consideration of the conservation and sustainable use of biological resources into national decision-making;



- b. Adopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity;
- c. Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements;
- d. Support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced; and
- e. Encourage cooperation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources.

1.1. Scope for synergy: UNEP-CBD guidance and linkages to existing National Actions

As thought-exercises, the rationale and the larger mandate for “MEA synergies” have been articulated through many CBD-aligned processes for many years now. The UNEP/WCMC has played a key role in thought-leadership, which has, since COP XIII crystallised around a few **key areas identified for synergy** (please refer, for details, to Annex 1,2,3), which include:

1. The Sustainable Development Goals (SDGs), Strategic Plan, Aichi Targets & National Biodiversity Action Plan (NBAP) as a means of fostering synergy – (Can strengthen livelihoods and poverty alleviation in/around several ‘sites’ in the PA network (many will correspond to being an MEA site as well – Ramsar/WHC/ Important Bird Area etc) be promoted/demonstrated?)
2. Communication, Education and Public Action (CEPA) related to MEAs (eg: Special observance days – World Wetlands Day or World Wildlife Day being used to show the points of contact with the other MEA, eg: Ramsar and CMS, Wildlife and habitat more broadly).
3. In service of strengthening the science-policy interface in relation to these MEAs through strengthened synergy, and how Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) facilitated processes can help (for example, Invasive Alien Species management is a challenge to all sites in the PA network, which may be relevant



to one or the other MEA, and is an area where the scientific and management authorities of MEAs can cooperate to use science to inform policy).

4. Information and knowledge management and reporting (eg: the InforMEA portal brings information on all the MEAs on one site, for easy access by the others, to ease reporting requirements etc, similarly at the national level the ENVIS on PAs lists sites of relevance to most site-based MEAs like Ramsar and WHC Natural Heritage Sites, and could possibly include other aspects as well)
5. Joint Capacity building exercises (eg: Both CITES and IPPC need training of customs officials – can there be joint planning and cost sharing for the same?)
6. Financial resource mobilisation and utilisation (including through GEF)

Based on a review of

- I. the InforMEA platform providing information on BD-MEAs, (from which all MEA-related information provided here is sourced, and duly acknowledged)
- II. Four-years of Annual Plans of MoEFCC, and
- III. the websites and web-based reports of other stakeholders working in the area of environmental conservation, sustainable development and CEPA more broadly, as well as personal interaction and information gathering

The following review and policy options document to promote MEA synergies along the lines of the above mentioned key areas identified for synergy has been put together.



2.0. Biodiversity Cluster MEAs and their Implementation in India – A Brief Overview

This section outlines biodiversity-cluster MEA-related information sourced from InforMEA, in order to clarify the points of contact each of these have with CBD's conservation and sustainable use mandates.

2.1. Ramsar Convention

1. Purpose and mission

The purpose of the 1971 Ramsar Convention is to stop the loss of wetlands and to promote their conservation and wise use as a means to achieving sustainable development. Later on, the mission of the Ramsar Convention was more particularly identified as “the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution to achieving sustainable development throughout the world.”

2. Key terms

Article 1 of Ramsar Convention defines “Wetlands” as “...areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters.”

Another relevant term is wise use, that has been defined as the sustainable utilization of wetlands for the benefit of human kind in a way compatible with the maintenance of the natural properties of the ecosystem.

The Convention Manual states that five major wetland types are generally recognized:

- 1 Marine: coastal wetlands including coastal lagoons, rocky shores and coral reefs
- 2 Estuarine: including deltas, tidal marshes and mangrove swamps



- 3 Lacustrine: wetlands associated with lakes
- 4 Riverine: wetlands along rivers and streams
- 5 Palustrine: meaning “marshy” - marshes, swamps and bogs

3. National Implementation

The Convention does not place specific obligations on state parties to enact legislation to protect wetlands. However, the requirement to designate at least one wetland upon signing the Convention, together with the obligation under article 3 to “formulate and implement their planning so as to promote the conservation of wetlands included in the List and as far as possible the wise use of wetlands in their territory” implies a strong need to ensure that a domestic scheme of legislative protection is necessary.

4. Site Designation - The Ramsar List

Each state party shall designate at least one wetland for inclusion in a List of Wetlands of International Importance (Ramsar List) and ensure the maintenance of the ecological character of each Ramsar site (article 2(1)). Wetlands should be selected for the List on account of their international biological, ecological, botanical or hydrological significance (article 2(2)). Countries are expected to include in the List as many wetlands as possible.

In case of urgent national interests, a state may also delete a wetland from the list or restrict its boundaries. The state then should compensate, however, for the loss by creating additional nature reserves for waterfowl either in the same area or elsewhere. The Convention classifies wetlands in three categories: Marine and Coastal, Inland and Human-made Wetlands.

The inclusion of a site on the list does not prejudice the sovereign rights of the territorial state. However, the state must conserve, manage and use wisely the listed wetlands and migratory stocks of waterfowl (article 2(6)).

5. Other obligations

Parties further commit themselves to include wetland conservation within their national land-use planning, with the purpose of promoting the wise use of all wetlands within their



territory. Parties are obliged to establish nature reserves, whether they are listed or not, and to endeavour to increase waterfowl populations (article 4). Furthermore, they are obliged to report to the Ramsar Bureau on the status of their listed wetlands (article 3).

The Convention also provides for cooperation between state parties. Parties must consult with each other in implementing the Convention, especially where a wetland extends across the territories of more than one state.

Parties are encouraged to establish National Wetland Committees referred to as Ramsar Committees, involving all relevant government institutions at central and state level dealing with water resources, development planning, protected areas, etcetera. NGO participation is also actively encouraged.

6. Institutional arrangements

In 1987, an amending protocol established a Conference of the Contracting Parties (CoP) as a primary Ramsar Convention institution. The CoP adopted some a number of decisions to give greater precision to the definition of wetlands and to standardize the information form to describe the designated sites.

The CoP meets every three years and approves resolutions, recommendations and technical guidelines to further the application of the Convention. The Standing Committee includes Regional Representatives of Ramsar geographical regions and meets annually. A Scientific and Technical Review Panel provides guidance on key issues related to the application of the Convention.

The Secretariat shares headquarters with the World Conservation Union/IUCN in Switzerland, and coordinates the day-to-day activities of the Convention. It also administers the annual budget. Each party contributes a percentage related to its contribution of the United Nations budget. In addition, many countries and other donors make contributions to special Ramsar Secretariat projects.



7. The Montreux Record

An additional special register, called the Montreux Record, was established to identify Ramsar sites facing problems related to the maintenance of their ecological character. The CoP further established a fund in 1990, now known as the Ramsar Small Grants Fund for Wetland Conservation and Wise Use, which provides financial support for wetlands conservation activities.

2.2. CMS

The need of a worldwide agreement on the conservation of migratory species was recognized in the 1972 UN Conference on the Human Environment.

The negotiations for the adoption of the Convention on the Conservation on Migratory Species came to a successful conclusion in June 1979 in the German city of Bonn and entered into force in 1983. It is commonly known as CMS or the Bonn Convention.

Migratory species of wild animals are part of the world's natural heritage. They constitute unique biodiversity and play a role as indicators of ecological change (e.g. climate and pollution).

In addition, they provide numerous ecosystem services for instance by dispersing seeds and pollinating plants. They are a source of food for other animals and humans. Many have spiritual and cultural significance and are key elements of ecotourism.

“Conservation and effective management of migratory species of wild animals require the concerted action of all States within the national jurisdictional boundaries of which such species spend any part of their life cycle”-Preamble of the CMS

Migration is a natural phenomenon by which individuals of given species move between sites. This can occur at different times of the year, at different stages of their lives, or in search of appropriate conditions for breeding and raising their young and in some cases involves very long distances.

Article I of the CMS defines ‘migratory species’ as “the entire population or any geographically



separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one of more national jurisdictional boundaries.”

Human activities threaten many species, and conservation efforts for migratory species are made more difficult because by their very nature as migratory animals, their behaviour means that they are frequently on the move. They depend on a range of often fragile habitats.

Threats include barriers to migration (dams, power lines, wind farms, fences, roads, railways); habitat loss and degradation; the species inadvertently becoming by-catch; underwater noise; invasive alien species; wildlife disease; illegal hunting and fishing; pollution; marine debris; poisoning; desertification and climate change. As a result, many once common migratory species are becoming increasingly rare.

CMS is a framework convention: Further instruments, tailored to the specific needs of the Range States, can be developed under the CMS for a single species or a group of related species and range from a bilateral agreement to regional or global geographical scope.

These instruments can be:

1. Agreement: Legally-binding instruments to commit to implement agreed obligations and measures
2. Memorandum of Understanding: Non-legally binding instruments to concern common action

CMS and its instruments determine policy and provide further guidance on specific issues through their strategic plans, action plans, resolutions, decisions and guidelines

India, for instance has signed CMS Memoranda of Understanding to protect the Dugong and the Siberian Crane.



2.3. CITES

The Convention on International Trade in Endangered Species of Wild Fauna and Flora came into effect in 1975. Since that time, the convention has put into place a system to regulate the movement across borders of those species of fauna and flora whose populations experienced the pressure of expanding volume of trade. The animals and plants protected by CITES are known as CITES-listed species. The CITES Appendices are what list these species in accordance with their conservation status and perceived threat from trade. Trade in whole animals and plants as well as their parts – like elephant tusks or extracts from Brazilian rosewood – are restricted under the convention. So far, close to 35000 species are CITES-listed. About 6-fold plant species compared to animal ones are listed.

CITES-listed species that are so-threatened with extinction that their international trade for commercial purposes is completely restricted, figure in Appendix I. Trade is permitted in these species only in very specific circumstances. Tigers, pandas and gorillas and some cacti and aloe species are examples.

The mission of CITES is to help conserve species and to ensure that use of species in international trade is sustainable and traceable. Legal trade of Appendix II specimens is a multi-billion dollar legitimate business for which CITES has over 13 million recorded transactions in its databases as of 2013 and the figure is only growing. The majority of CITES-listed species (over 95%) fall under Appendix II and include for example, cetaceans, and crocodilians, orchids not listed under Appendix I. Trade of Appendix II items require permits that indicate, among other things, what the species is, its quantity, country of origin and destination country.

Appendix III include native species protected at the national level, and through which countries call upon potential importing countries to help in regulating trade in these species, by requiring presentation of an import permit. These account for 1% of the species listed.

CITES has Management, Scientific and Enforcement Authorities designated by every party and national legislation regulating trade in CITES-listed species at the national level. The Management Authority is responsible for authorising, certifying, administering and regulating international trade in CITES-listed species, prepares reports of the trade that has taken place and communicates with other national agencies. The Scientific Authority provides all



the relevant scientific advice that is mandatory for trade to occur under CITES. It advises the Management Authority on whether exports are sustainable and non-detrimental to the survival of a specimen in the wild (by sharing what are known as non-detriment findings), suggests export quotas, conducts research and population surveys etc. The Enforcement authorities deal with any legal breach to CITES, including illegal trafficking.

CITES contributes to human well-being and local-livelihoods as communities are the frontline for protection of CITES-listed species. Often local communities have the indigenous and expert knowledge of local animals and plants. If they can be involved as allies and partners in the conservation efforts, conservation is improved. This is the basis of synergies with other MEAs as well.

2.4. The World Heritage Convention

The Convention Concerning the Protection of the World Cultural and Natural Heritage (“The World Heritage Convention”) was adopted by the General Conference of UNESCO in 1972, and has been adhered to by 191 parties (January 2015).

The Convention is one of the most complete international instruments that exist in the field of conservation. It is based on the recognition that parts of the cultural and natural heritage of various nations are of outstanding universal significance and need to be preserved as part of the world heritage of humankind as a whole. The Convention also affirms in its preamble that the cultural and natural heritage is increasingly threatened with destruction by changing social and economic conditions. The World Heritage Convention is supplemented by Operational Guidelines drawn up and updated from time to time by its World Heritage Committee.

The primary function of the Convention’s provisions is to define and conserve the world’s heritage, by drawing up a list of sites whose outstanding universal values should be preserved for all humanity and to ensure their protection through a closer cooperation among nations.

Article 2 defines ‘natural heritage’ to include: Natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value, from the aesthetic or scientific point of view; Geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and



plants of outstanding universal value from the point of view of science or conservation; and Natural sites or precisely delineated natural areas of outstanding universal value, from the point of view of science, conservation or natural beauty.

2.5. ITPGRFA

In 1981, the FAO Conference agreed on the need for an international instrument regulating access to Plant Genetic Resources for Food and Agriculture (PGRFA) and clarifying the legal status of ex situ collections and adopted in 1983 the International Undertaking on Plant Genetic Resources, the first international agreement regulating the conservation, sustainable use and access to PGRFA.

The International Treaty on Plant Genetic Resources for Food and Agriculture was adopted in November 2001, after seven years of international negotiations for the revision of the 1983 International Undertaking. It entered into force in 2004 and has currently 133 parties.

The Plant Treaty is the internationally agreed legally binding framework for conservation and sustainable use of all PGRFA. It carefully balances the interests of developed and developing countries as well as a broad range of further stakeholders involved in PGRFA conservation and use, such as, inter alia, public and private agricultural researchers and plant breeders, gene banks and farmers' organizations.

By promoting the conservation and the sustainable use of crop diversity, the Treaty aims to face the global challenges of crop diversity loss and food security, which are particularly worrying in a context of changing climate and land degradation.

Objectives

The objectives of the Treaty are the conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security.



The Treaty aims at:

Recognizing the enormous contribution of farmers to the diversity of crops that feed the world;

Establishing a global system to provide farmers, plant breeders and scientists with access to plant genetic materials;

Ensuring that recipients share benefits they derive from the use of these genetic materials with the countries where they have been originated.

1. An integrated approach

The International Treaty requests Contracting Parties to promote measures for effective conservation and sustainable use of PGRFA and establishes transparent internationally accepted regulations for cross-border transfers of a number of the world's most important PGRFA for food security for research and breeding purposes.

Conservation and sustainable use of crop diversity are two sides of the same coin in order to achieve the International Treaty's overall goal of global food security. Our continued ability to make use of crop diversity requires adequate measures for its conservation, while the purpose of conservation only remains valid as long as PGRFA keep being used - in a sustainable way.

This linkage is reflected at various points in the text of the International Treaty, including most prominently in the chapeau of Article 5 which provides that Contracting Parties shall "promote an integrated approach to the exploration, conservation and sustainable use" of PGRFA. In this sense, the measures to promote conservation and sustainable use of PGRFA contained in articles 5 and 6 can be understood as a continuum.

2.6. IPPC

IPPC the International Plant Protection Convention is a international plant health agreement that aims to protect cultivated and wild plants by preventing the introduction and spread of plant pests and diseases. The Convention was adopted in 1951 at the conference of FAO, the Food and Agriculture Organization of the United Nations. In 1992 the IPPC Secretariat was established beginning the standard-setting programme. Over 180 countries signed the Convention.



The Convention encompasses the protection of cultivated plants, urban trees and shrubs, as well as the protection of natural flora. It takes into consideration vehicles, aircraft and vessels, containers, storage places, soil and other objects or material that can harbour or spread pests. As international travel and trade increases organisms that present risks to plants and plant products travel with people and commodities around the world.

The mission of the IPPC is to secure cooperation among nations in protecting global plant resources from the spread and introduction of pests of plants, in order to preserve food security, biodiversity and to facilitate safe trade in plants and plant products. The IPPC is the standard setting organisation, the only one in the area of plant health. The standards are recognized as the basis for phytosanitary measures managing pest risks applied in international trade by the Members of the World Trade Organization under the Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement).

The IPPC provides a framework for the development and application of harmonized phytosanitary measures and the coordination of global plant health activities. Through the promotion of international cooperation and providing a set of international standards to follow, it gives contracting parties a level playing field in which to safely trade in plants and plant products.

IPPC aims to protect cultivated and wild plants by preventing the introduction and spread of pests. To do this the Convention sets out a way for contracting parties to undertake actions to prevent the spread and introduction of pests of plants and plant products, by using appropriate measures for their control. With respect to protecting plant resources, the IPPC contributes to:



- protecting farms and forests from the introduction and spread of new pests;
- protecting food security;
- protecting the natural environment, plant species and diversity; and
- protecting producers and consumers from costs associated with combating and eradicating pests.

This section's examination of the BLG-MEAs makes it evident that synergies cannot be forced between any and all MEAs. For this reason, section 4.0 proposes possible 'clustering' of certain MEAs for which synergies are enabling and beneficial in view of the larger objective.

The table below captures the salient points of implementation of the BLG-MEAs, for which MoEFCC has oversight, in the Indian context.

Table 1: Implementation of the BLG-MEAs in India

Source: reproduced from Taneja, Bansuri (2002)

MEA (for which MoEFCC has overarching responsibility)	Year of becoming a Signatory/Ratification by India	Relevant Domestic Legislation	Key reporting / procedural arrangements to facilitate implementation	Key Scientific and Management authorities/NGOs that assist in implementation	Observations related to implementation: Pros	Observations related to implementation: Cons
Convention on Biological Diversity	India became a signatory to the CBD in December 1993 and ratified the Convention in February 1994	The Forest Act (1927), The Wildlife (Protection) Act (1972), Amended 1992; Forest (Conservation) Act (1980), Environment Impact Assessment Notification (1994); National Environment Appellate Authority Act (1997); Environment (Protection) Act 1986; National Environment Tribunal Act (1995), Protection of Plant Varieties and Farmers' Rights Act (2001), Biodiversity Act (2002), The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act (2006) and Wetland (Conservation and Management) Rules 2017.	The first national report to the COP on the implementation of Article 6 was completed in 1997. The most recent was NR 6. NBAP is Cabinet-approved since 2008 to serve as a framework for convergence, though quality of dissemination and uptake is unknown.	All protected areas in India, which are the main instrument for in situ biodiversity conservation, are managed by the Indian Forest Service (IFS). This service was established by the colonial government, and has continued as the management functionary for forests in India. The IFS is also an integral part of the MoEFCC. The Forest and Wildlife divisions, and specialist institutions like the Wildlife Institute of India, a network of ENVIS centres, NBA etc are also involved. All states and union territories have departments looking after environment and forests. State Pollution Control Boards, Wildlife Advisory Boards, State Biodiversity Boards, Biodiversity Management Committees and in some cases committees on Biosphere Reserves.	India has reportedly achieved the target with regard to NBT 6 on forest cover being 20% of the geographic area though tree cover in plantation forest is included in the same and scans the ecosystem benefits of ecologically restored forest cover. Charismatic wild fauna through species recovery programs – protectionist/conservationist ethos has been beneficial MPCA network for medicinal plant botanicals in PAS established	Harmonisation of Forest Act and Forest Rights Act, Traditional Forest Dweller's rights, especial marginalised and indigenous communities' rights in all this, less clear. The network of institutions impacting biodiversity are vast. In addition to MoEFCC, the Ministry of Agriculture is responsible for inter alia, domesticated biodiversity, fisheries, issues relating to shifting cultivation. Other departments and ministries at the central level are the Department of Science and Technology (technologies of environment protection), Ministry of Rural Development (regeneration of biomass outside recorded forest areas), Ministries of Power and Non-Conventional Energy Sources, Ministry of Water Resources (water quality and monitoring), and Ministry of Commerce (trade related aspects of biological resources), Ministry of Urban Development (carbon footprints & landuse transformation of infrastructure, transport), Confederation of Indian Industry (core business impact on BD v/s CSR activity). The extent to which BD concerns and implementation of the NBAP is informing their working is a matter of conjecture.





<p>MEA (for which MoEFCC has overarching responsibility)</p> <p>Ramsar Convention on Wetlands</p>	<p>Year of becoming a Signatory/ Ratification by India</p> <p>India signed the Ramsar Convention in 1981.</p>	<p>Relevant Domestic Legislation</p> <p>Wetland (Conservation and Management) Rules 2017.</p>	<p>Key reporting /procedural arrangements to facilitate implementation</p> <p>Parties to the convention are obliged to have at least one wetland listed as being a Ramsar site, with a commitment to maintaining its conservation and wise use. Other obligations include to incorporate wetland conservation considerations in national land-use planning, to promote as far as possible, “the wise use of wetlands in their territory” establishing nature reserves and training of personnel for wetland management, and consulting with other parties especially for the conservation of trans-border wetlands.</p>	<p>Key Scientific and Management authorities/NGOs that assist in implementation</p> <p>MoEFCC has been working in active collaboration with the Wetlands Cell of WWF-India to prepare fact sheets for the Ramsar sites</p>	<p>Observations related to implementation: Pros</p> <p>Two wetlands in India were nominated for inclusion on the Ramsar list at the time of signing the Convention. A further four were added in 1990. India now has a total of 26 in the Ramsar list. Chillika was and is now successfully removed from the Montreux record.</p>	<p>Observations related to implementation: Cons</p> <p>2 sites on the Montreux record– Keoladeo and Loktak</p> <p>Many don't have management plans</p> <p>Over 3 decade gap in signing the convention and formulation a domestic law for wetlands.</p> <p>India and Bangladesh have an MoU on Sunderbans (which is a Ramsar site in Bangladesh but not India) and Rampal Coal Plant of state-owned NTPC is currently being contested in Bangladesh), with little or no support from India</p> <p>The main difficulty in the implementation of the Ramsar convention is the lack of management capability and organizational structure at the site level. Most Ramsar sites are under the jurisdiction of state governments, at which level there is no functioning arrangement to deal with wetlands issues. The immediate responsibility for management of the sites falls to revenue, forest or fisheries departments, who are usually unaware of the special requirements of wetland management.</p>
<p>Convention on Migratory Species</p>	<p>India signed this convention in 1983.</p>	<p>As provided by the WLPA</p>	<p>It constitutes a mostly moral binding on the parties to have adequate measures in place for the conservation of endangered migratory species. Such legislation in India is provided by the WLPA, focal point of the CMS in India is the Deputy Inspector General of Forests (Wildlife) periodic reporting and MoUs between range countries (such as for the Siberian Crane, Dugong etc) are other tools.</p>	<p>Forest Department, Will assisted by relevant site-based and species-expertise hosting NGOs like NCF, WWF, ANET</p>	<p>A network of Important Bird Areas has been established</p> <p>Wild Life Action Plan does facilitate species-based conservation relevant to CMS</p>	<p>The Siberian crane no longer comes to Keoladeo</p> <p>Systematic data collection and monitoring for information on the status of dugongs, cetaceans is lacking.</p> <p>CBD COP V Decision V/21 “ to develop a proposal on how migratory species could be integrated into the work programme of the Convention on Biological Diversity, and the role of the Convention on Migratory Species could play in the implementation of the Convention on Biological Diversity with regard to, inter alia, the ecosystem approach, the Global Taxonomy initiative, indicators, assessments and monitoring, protected areas, public education and awareness, and sustainable use, including tourism”, and this has not been achieved</p>



<p>MEA (for which MoEFCC has overarching responsibility)</p> <p>Convention on International Trade on Endangered Species</p>	<p>Year of becoming a Signatory/Ratification by India</p> <p>India became a party to CITES in 1976, and it came into force later the same year.</p>	<p>Relevant Domestic Legislation</p> <p>Wildlife (Protection) Act (1972), the Import and Export Policy of the Government of India, and the Customs Act (1962). The Wildlife (Protection) Act of 1972 (WLPA) predates CITES, was amended in 1986 to put a complete ban on trade in trophies or derivatives, and once again in 1991. With this amendment, hunting of a wide variety of animals was banned, which included all Indian species in Appendix 1 of CITES, and most Indian species in Appendix II and III.</p> <p>Collection or trade of Indian plants listed in CITES was also prohibited. Stocks of wildlife products existing in the possession of licensed traders had to be stamped with identification, and transportation of wildlife or wildlife products required a permit. Trade in ivory and ivory products was also banned.</p>	<p>Key reporting /procedural arrangements to facilitate implementation</p>	<p>Key Scientific and Management authorities/ NGOs that assist in implementation</p> <p>CITES Management in India is divided between three levels of the management authority, and the Scientific Authorities.</p> <p>The main Management Authority for India are the Additional Inspector General of Forests (Wildlife Division) and the Director (Wildlife Preservation) at the MoEFCC. Assistant Management Authorities are deployed at five locations across the country. Four of these hold the jurisdiction of the Northern, Southern, Eastern and Western Regions of the country. The jurisdiction of the fifth, the Director of Project Tiger (a GoI programme focused on the conservation of the tiger) based in Delhi, is unspecified. Additionally, wildlife inspectors are posted at Customs check points in New Delhi, Mumbai, Calcutta, Chennai, Cochin and Tuticorin (designated ports for the import and export of CITES listed flora and fauna). Assistant Directors (Wildlife Preservation) have been additionally deployed in three sensitive locations: Amritsar, Cochin and Guwahati. Other officials of the Indian Forest Service are the functionalies at the state levels, being responsible for issuing licenses to traders and legal procurement certificates.</p> <p>The Scientific Authorities are the Botanical and Zoological Surveys of India, the Central Marine Fisheries Research Institute, and the Wildlife Institute of India provide reference support.</p> <p>Various NGOs play a strong role in the enforcement of CITES as well. TRAFFIC-India, is mandated to compile seizure data. It also monitors the trade and use of wild species and their derivatives, to aid in assessing the chances of survival of these species. It also makes a contribution to the preview process of listing proposals in the Indian region. The Wildlife Society of India are also active in the conservation of wild species in relation to CITES and its implementation in India. They also play a strong role in awareness building</p>	<p>Observations related to implementation: Pros</p> <p>CITES being the oldest convention, legal and institutional measures for its implementation are the most wide ranging, when compared with the other MEAs.</p>	<p>Observations related to implementation: Cons</p> <p>Trade in wildlife being regulated under the Export and Import Policy and the Customs Act means that there is no domestic regulation of endangered species or their derivatives. An article having once entered the country does not fall under the purview of any legislation. Low standards and capability of enforcement of CITES and/or monitoring movement of wildlife articles is also constitutes a problem in the implementation of CITES.</p>
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<p>MEA (for which MoEFCC has overarching responsibility)</p> <p>The World Heritage Convention</p>	<p>Year of becoming a Signatory/Ratification by India</p> <p>India was ratified to the World Heritage Convention on 14th November 1977</p>	<p>Relevant Domestic Legislation</p> <p>There are five natural properties in India nominated as World Heritage Sites. These are already under the Protected Area system, and as such management arrangements were in place in these sites before nomination as WHS.</p>	<p>Key reporting /procedural arrangements to facilitate implementation</p>	<p>Key Scientific and Management authorities/NGOs that assist in implementation</p> <p>The focal point for the WHC as a whole in India is the Indian National Commission for Cooperation with UNESCO, placed in the Ministry of Human Resource Development. The focal point for natural properties for the WHC is the Deputy Inspector General (Wildlife) in the MoEF. Requests for nominations submitted to the WHC Bureau are prepared initially at the level of the States, by the Forest Department personnel responsible for conservation at that level.</p>	<p>Observations related to implementation: Pros</p> <p>The Delhi UNESCO office provides support – technical and financial to the extent possible- to the Indian National Commission or to the individual World Heritage sites on request</p>	<p>Observations related to implementation: Cons</p> <p>The study: Distribution of Benefits and Costs among Stakeholders of a Protected area: an empirical study of Great Himalayan National Park (GHNP) in Kullu, Himachal Pradesh by Dr.R.S. Prasher, reveals that the local population would have to forego an estimated amount of ` 8.20 cores as net benefits under the new conservation programme in the park. Studies like this, can inform the starting point for addressing disproportionate cost and benefit-sharing burdens.</p> <p>- The BCRLIP (Biodiversity Conservation and Rural Livelihood Improvement Project) which ran for 6 years from 2011 in other non-WHC PAs, may offer transfer of learning to various MEA-sites</p>
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3.0. Possible ‘clustering’ of BLG-MEAs in the Indian context

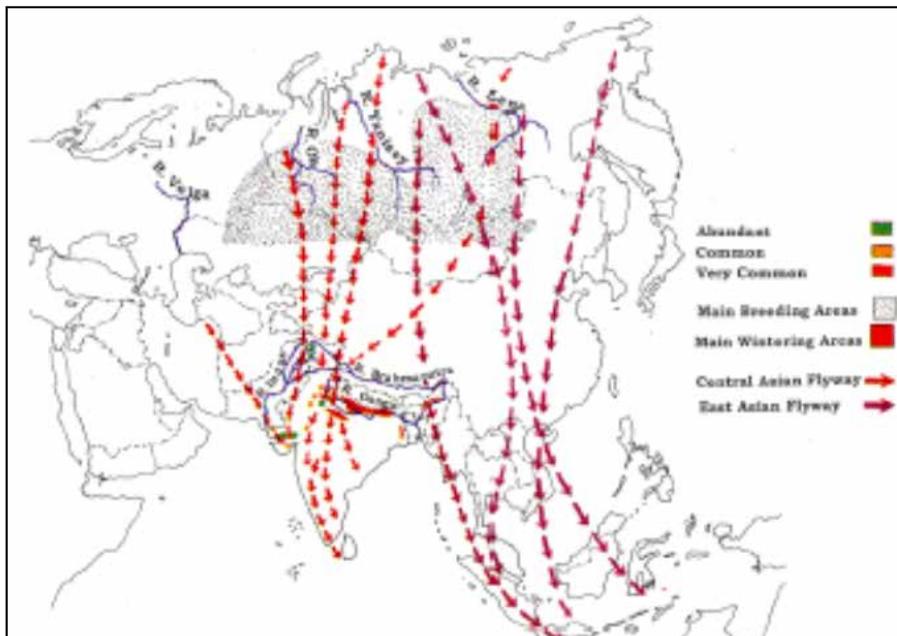
1. CBD, Ramsar and CMS conventions
2. CBD, CITES, Ramsar, CMS, WHC
3. CBD and ITPGRFA (and UNFCCC and UNCCD, though these are not BLG-MEAs)
4. CITES and IPPC (for which a detailed UNEP guidebook, Green Customs guide is available, to sensitise customs officials to the technical training requirements of both conventions, and hence will not be detailed further in this report).

3.1. Cluster I: Implementation and Synergies of the CBD, Ramsar and CMS conventions in India

As signatory to the Ramsar Convention, India is bound to protect its wetlands and has so far designated 26 wetlands as Ramsar Sites as per the provisions of this international treaty. While the ecosystem services of wetlands per hectare surpass those of forests, unlike forests, wetlands do not share a similar long history of formal conservation attention in the country. The most obvious synergy that the Ramsar Convention has, is with CMS, especially with regard to migratory birds. There is a growing need to recognize the links between species and their habitats and, in particular, to protect breeding, wintering and stopover sites and migratory corridors.



Figure 1: Important Flyways in Asia



Source: Presentation used at the ATREE National Ramsar Sites Stakeholders Meet

Negative effects on migratory species include habitat fragmentation and barriers to migration routes, genetic isolation and splitting of population as well as direct mortality.

3.1.1. Ramsar Implementation in India

The complete list of Ramsar-site information as provided by India to the Ramsar secretariat and as hosted on their website is reproduced in Annex 5. However, most of this information is from 2002 or 2005, and therefore dated by over a decade. Secondly, it does not have empirical information about the livelihood-support functions of the wetlands, which together with the biodiversity and ecosystem services rendered, need to be examined and understood in a systems perspective to contribute to improved understanding of SDGs as an area of synergy among this cluster of MEAs.

Ashoka Trust for Research in Ecology and the Environment (ATREE) conducted a National Ramsar Sites Stakeholders Meet and Wetland Conservation Seminar at Alappuzha - the home



to Vembanad Kol wetlands, the largest Ramsar site in India - on March 3rd to 5th 2013. The main objective of this program was to bring together stakeholders, policy makers, researchers and civil society organizations associated with Ramsar sites in India to facilitate knowledge sharing and networking. This first of its kind event in India and supported by the Ministry of Environment and Forests, Govt. of India, WWF India, Department of Environment and Climate change, Govt. of Kerala and Department of Ports, Govt. of Kerala. The ATREE event-related information and personal communication with stakeholders as follow-up offers an incomplete but more recent and multi-stakeholder source, that has informed this document.

A little over half the Ramsar sites ie: Ashtamudi Wetland (Kerala), Chandertal Wetland (Himachal Pradesh), Chilika Lake (Orissa), Harike Lake (Punjab), Kanjli (Punjab), Keoladeo National Park (Rajasthan), Kolleru Lake (Andhra Pradesh), Loktak Lake (Manipur), Point Calimere Wildlife and Bird Sanctuary (Tamil Nadu), Pong Dam Lake (Himachal Pradesh), Renuka Wetland (Himachal Pradesh), Ropar (Punjab), Rudrasagar Lake (Tripura), Sasthamkotta Lake (Kerala), Tsomoriri (Jammu and Kashmir), Upper Ganga River (Brijghat to Narora Stretch) (Uttar Pradesh), Vembanad-Kol Wetland (Kerala) and Wular Lake (Jammu and Kashmir) were represented at this meet. The information shared at this event was found particularly useful in relation to Ramsar-CMS-CBD synergies around CEPA, SDGs and NBTs around the site/ facilitated by them, and to analyse gaps and possible way forward.

The (table-2) below summarises some key information under relevant heads and further facilitates a gap-analysis of what initiatives could inform and strengthen the policy of improved MEA synergies at the national level.



Table-2: Summarises of key information under relevant heads and gap-analysis of what initiatives could inform and strengthen the policy of improved MEA synergies at the national level.

Ramsar Site	CBD synergy	CMS synergy	SDG/(besides NBT 6) supported	Issues to be addressed/ CEPA interventions and requirements
Ashtamudi	<p>Second largest estuarine system in the state of Kerala</p> <p>100 species of fish and 5 – 10 species of bivalves</p> <p>Endangered species: Zyzigium travencoricum, calmus rotang</p>	--	<p>SDG-1,2,3,8: Clam fishery of the estuary is a major source of livelihood support for locals. As per 2013 data, Short Neck Clam (Yellow Clam) is the major clam fishery, supporting 3000 families. 20 million tonnes are harvested annually of which 95% is exported, generating a revenue of 10 crores annually. Sustainability of the fishery is ensured by self imposed ban for 20 yrs.</p>	<p>ATREEs various community education/ school initiatives</p>
Vembanad	<p>The largest brackish, humid tropical wetland ecosystem on the southwest coast of India, fed by 10 rivers and typical of large estuarine systems on the western coast.</p> <p>Supports the third largest waterfowl population in India during the winter months.</p> <p>Flood protection for thickly-populated coastal areas of three districts of Kerala is considered a major benefit.</p> <p>Groundwater recharge helps to supply well water for the region.</p> <p>Value of the system for the local transport of people and trade is considerable.</p>	<p>Over 90 species of resident birds and 50 species of migratory birds are found in the Kol area.</p>	<p>Renowned for its clam fisheries.</p>	<p>Registered Body: Lake protection federation. A federation of : lake protection forums</p> <p>Challenges:</p> <ul style="list-style-type: none"> Thannermukkom Bund (Fisherman-Farmers forum) Pesticides from Paddy cultivation (organic farming interventions) Pollution from House Boats & Industries Invasive species Sand mining White clam dredging, etc <p>Other interventions</p> <ul style="list-style-type: none"> Water quality monitoring Fish count WWF observance TK for fish sanctuaries



Ramsar Site	CBD synergy	CMS synergy	SDG/(besides NBT 6) supported	Issues to be addressed/ CEPA interventions and requirements
Pong Lake	Forest Type: Northern Dry Mixed Deciduous Forests (Champion and Seth), Top Storey: Dalbergia sissoo, Terminalias, Albizzia , Pinus roxburghii (scattered), Middle Storey : Mallotus phillipinansis, Bamboo, Grasses : Saccharum munja , Arundinaria,. Mammals: 26 Species ,Leopard, Nilgai, Sambhar, Barking Deer, Birds : 419 species of 54 families , Fishes: 27 species / 5 families (Mahsheer, Katla, Rohu, Carps, Amphibians / Reptiles: 18 Species of snakes Krait / Cobra / Russel's Viper / Python)	Solitary snipe-winter visitor, Whooper swan-First time photographed, Greater white fronted Geese-Largest, Barheaded Geese-More than 40 percent, Eurasian Skylark-largest numbers.	Declared a sanctuary in the year 1983 it was later designated as wetland of national importance in 1994 and Ramsar site in 2002. Not much is known about the wildlife-human interface and the SDG/NBT synergies that can be strengthened. Weeds: Lantana camara, Parthenium – weed infestation needs addressing?: IPBES on Invasives, Livelihood support	Not known



Ramsar Site	CBD synergy	CMS synergy	SDG/(besides NBT 6) supported	Issues to be addressed/ CEPA interventions and requirements
The Chandertal lake	<p>The geology of the catchment area of this lake is unique: Kunzum Range possess a distinct sedimentary as well as fossilised structure of the rocks dating back to the period of uplift of the Himalayas.</p> <p>Threats - Direct degradation due to road, channel and other construction in sensitive sites.</p> <p>Excessive grazing by migratory herders and local herders that may result in herbivore population declines due to competition. Degradation of pastures and spread of diseases High pressure on pasturelands. Grazing with hooved animals such as cattle causes to topsoil to become compacted, and also breaks down soil structure causing formation of rills and erosion of soil.</p> <p>Livestock depredation by wild carnivores (Human-wildlife conflict)</p>		<p>Resolving human-wildlife conflict: Community Based Insurance Program. (NCF): large bodied livestock of high economic value are insured through co-financing provided by donor agencies and proceeds from the community based insurance programme fund. Within this scheme, the livestock killed by predators are compensated.</p> <p>Moderating human impact on ES: Wetland conservation Committees: regulating grazing and identify the grass reserve in the Landscape. Grazing free reserves, With the support of Nature Conservation Foundation three grass reserves (10 to 15 sq. kms.) up top 3-5 years has been made to avoid conflict between domestic livestock and wild (herbivores?) prey.</p>	<p>Chandertal Conservation Society. With the support of WWF-India Himachal chapter to regulate grazing and tourism activities around the lake and take up cleanliness and waste management at Chandertal. Dustbins have also been installed by the WWF-India Himachal chapter at the camping sites to stop littering around the lake.</p> <p>Promoting eco-tourism/ home stay (HP Forest Dept)</p> <p>Avenues for employment: Employment at local level in habitat management works, Involvement in MNREGA works.</p> <p>Addressing: summer trekking, littering waste, and lack of sanitation facilities.</p>



Ramsar Site	CBD synergy	CMS synergy	SDG/(besides NBT 6) supported	Issues to be addressed/ CEPA interventions and requirements
Chilika lagoon	<p>Largest brackish water lagoon with estuarine character in Asia.</p> <p>A unique assemblage of marine, brackish water and freshwater eco system. Inhabits a number of rare, threatened and endangered species including the limbless skink i.e. <i>Barkudia insularis</i>.</p> <p>Rich in fish diversity(317 sps), largest bird congregation site in India (8.77Lakhs in 2013), largest habitat for endangered Irrawaddy dolphins(152 in 2013),</p>	<p>Largest wintering ground for migratory birds in India. (about a million birds, mostly water-fowls and shorebirds winter here)</p> <p>Lagoon hosts over 225 birds species in peak season, with 97 being intercontinental migrants. Birds from Caspian Sea, Lake Baikal, Aral Sea, other remote parts of Russia, Kirghiz Steppes of Mongolia, Central & South-east Asia, Ladakh & Himalayas migrate to this place</p>	<p>Nalaban Island situated within the Lagoon is notified as a Bird Sanctuary under Wildlife Act.</p> <p>livelihood to 2 lakh fishermen</p>	Chilika Development Authority Bird Watching Guide
Harike wetland	<p>Situated on the confluence of Sutlej and Beas rivers. This wetland came into existence in 1953 due to the construction of a barrage across the River Sutlej. It was declared a Ramsar Site in 1990.</p> <p>Fauna – smooth coated otter, indus river dolphin (avian) pochards and coot.</p> <p>Ghariales reintroduced to Beas (PC)</p>	--	Workshop on 'Utilization of Water Hyacinth <i>Eichornia crassipes</i> as a local economic resource (like coir) by WWF	<p>Commercial fishing banned, tourism as community-enabling (local tenders), water hyacinth crafts</p> <p>Molasses killings incident – sugar factory waste (flags the need for CEPA to be broader/ multisectoral)</p> <p>Livelihood support – on scale?</p>



Ramsar Site	CBD synergy	CMS synergy	SDG/(besides NBT 6) supported	Issues to be addressed/ CEPA interventions and requirements
Point Calimere	<p>Tropical Dry Evergreen Forests, Open Grasslands, Mangrove Vegetation, Ponds & Wetlands, Mudflats and Swampy lands,</p> <p>Dry Sea-shore – Turtle, Wave less sea – Dolphins. 24 sp. of mammals and reptiles, 274 sp. of birds.</p> <p>Flagship species: Blackbuck for herbivores (Antilope cervicapra), Flamingos for birds (Phoenicopterus roseus), Olive Ridley turtles (Lepidochelys olivacea), Bottle nose Dolphin (Tursiops truncates), Pala – Tropical Dry Evergreen (Manilkara hexandra).</p> <p>Legal Status – Wildlife Sanctuary, Reserved Forest</p>	<p>(ornithological importance) Over 1,00,00,000 shorebirds wintered during 1980s & 1990s, Globally threatened Spoon-billed Sandpiper Eurynorhynchos pygmaeus, Spotted Greenshank Tringa guttifer. Near Threatened Bird Species 11 species, >40,000 Greater Flamingos Phoenicopterus roseus during 1980s, >50,000 in three species of migratory waders and one species of duck.</p>	<p>Point Calimere Wildlife Sanctuary, Muthupet Mangrove, Panchanathikualam Wetland, Thalainayar Reserved Forests.</p>	<p>(Stakeholders) Village– 25 nos, Domestic Cattle, Tourists, Scientists and Birdwatchers, Local Medical practitioners, Fishermen, Salt Industry, Oil Industry.</p> <p>Changes in the rainfall and wind pattern, choking of feeder canals of the swamp, Blocking of freshwater flow into the swamp,</p> <p>Uncontrolled fishing in the swamp and the coast, Development works along the Olive Ridley Nesting sites. Uncontrolled salt production and prosopis juliflora invasion are the major threats.</p> <p>Development pressures : Oil exploration, road construction, defence set-ups (army,navy)</p> <p>- need for more braod based CEPA, management plans</p>



Ramsar Site	CBD synergy	CMS synergy	SDG/(besides NBT 6) supported	Issues to be addressed/ CEPA interventions and requirements
<p>Keoladeo National Park.</p>	<p>Habitat Diversity comprises Wetlands: 11 sq. kms, Grasslands: 5 sq. kms, Woodlands: 13 sq. kms.</p> <p>Serves Multitude of ES functions like: Ground water Recharge, Flood control, Nutrient recycling, Support Biodiversity in the whole basin.</p> <p>75 % of States Avifauna found in KNP: 376 species of birds, besides 27 species of mammals, 7 species of turtles, 379 floral species, 50 species of fish, 13 species of snakes, 5 species of lizards, 7 amphibian species, and numerous invertebrates.</p>	<p>Was formerly a wintering site of the Siberian crane</p>	<p>In 1850-1899, the Park was created as hunting preserve by the erstwhile Maharaja, from a natural depression which was an evanescent rain fed wetland. In 1901, the reserve flooded for first time. An intricate system of tanks and weirs was created for water movement using the natural topography and hydrology of the area. The depression thus became a marsh and started to provide for the requirements of the numerous species. In 1956 it was declared bird sanctuary. In 1967 it was declared as Protected Forest under Rajasthan Forest Act of 1953. In 1981 it was declared as Ramsar Site, in 1982 notified as a National park, and in 1985 declared as a World Heritage Site.</p> <p>The Park remained dry in 2002, 2004, 2006, 2007 and 2009 and UNESCO has threatened to remove Keoladeo NP from World Heritage List. Failure of formation of breeding colonies of Piscivorous birds. Food and habitat loss to migratory birds and other lives. Encroachment by Prosopis juliflora and Vetiveria zizanioides on wetlands. This has caused serious threat to the wetlands which are the lifeline of this Park. Livelihood of more than 9000 families of about 35 villages would get adversely affected.</p>	<p>Park requires 350 mcft of water for its survival and breeding of migratory water fowls. Due to construction of Panchana irrigational dam on Gambhiri river, 130 km upstream from Park, Park gets requisite amount of water with great difficulty. Water enters in Park from Ajan Bund a temporary reservoir which draws water from river Gambhiri. WWF-India started working in Bharatpur in 1994 and was instrumental in : Research & Documentation, Monitoring Support, Prosopis Removal from Park. Interpretation Centre established in July 2006, Supported in software, hardware and capacity building, Multifaceted programs targeting 13 different groups, Developed interpretive signage, nature trails, audio-visual program, website, resource material and outreach program.</p> <p>Won Best Asian Wetland Centre Award in 2010. Implementing Water School Programme. Creating Awareness about Water Conservation. Building relationship with Forest Department. Improving Socio-Economic status of the community living close to Park.</p>



Ramsar Site	CBD synergy	CMS synergy	SDG/(besides NBT 6) supported	Issues to be addressed/ CEPA interventions and requirements
Rudrasagar Lake.	<p>A lowland sedimentation reservoir fed by three perennial streams discharging to the River Gomti.</p> <p>Habitat for IUCN Red-listed Three-striped Roof Turtle (Kachuga dhongka).</p>	--	<p>The lake is abundant in commercially important freshwater fishes and freshwater scampi, with annual production of 26 metric-tons.</p> <p>Neermahal, (meaning Water .palace) is a former royal palace built by King Bir Bikram Kishore Debbarman of the erstwhile Kingdom of Tripura in the middle of the lake Rudrasagar in 1930.</p>	<p>There has been illegal encroachment,</p> <p>No management plan,</p> <p>Illegal paddy cultivation.</p> <ul style="list-style-type: none"> - Points to need for more committed and multipronged intervention
Tsomoriri	<p>Very important breeding sites for water fowl. Breeding grounds for migratory birds.</p> <p>Also support many rare and endangered mammals including Snow Leopard and Blue Sheep (?)</p> <p>4600m above sea level – arctic like conditions</p>	Bar-headed Goose and globally threatened Black-necked crane (only site outside China)	<p>Migratory birds arrive March-April for breeding cycle. Leave in Oct-Nov</p> <p>Community-based tourism?</p>	<p>Construction of a road right up to the lake – interfering with breeding</p> <p>Tourism pressures – garbage and waste management</p> <p>Grazing pressure on lake shoreline – compounded effect of loss of grazing land elsewhere/ developmentalism</p>
Ropar	<p>Total wetland area 13.65 sq km. Area under water is 8 sq km. Conservation measures initiated in 1998. Importance: Habitat for python, pangolin. Important source of water.</p>	Habitat for migratory birds	<p>Plane Table Survey Completed. Maps digitized. Plantation : 115 ha, 12000 rft. fence erected and 50 number artificial nests installed. Water quality monitoring,</p>	<p>415 ha area treated to check soil erosion by constructing 9 silt detention earthen structures and 37 loose stone structures.Total area identified for treatment is about 27,290 ha . Silt abatement-14,700 tons</p>



Apart from the obvious linkages to SDG 15, 14 and 13, it is a central premise of this strategy paper that SDGs 1 (1.1, 1.2, 1.3, 1.5), 2 (2.4), 3 (3.4) and 8 (8.4, 8.5, 8.6, 8.8, 8.9) addressing poverty, hunger, and health and well-being in general besides full and productive employment and decent work offer important and valuable starting points to examine the social and human contexts in which this cluster of MEAs is located in India. Wetlands as highly productive ecosystems offer the livelihood support base of fisher folk and especially in higher altitudes to pastoralists; and indirectly in all ecosystems and bio-geographic zones through well-conceived and facilitated eco-tourism initiatives. A key missing element in the existing discourse of MEA synergies in India is a concrete data-base and reliable empirical accounts of the human-nature interactions around site-based MEAs in India. Whether poverty is measured in absolute terms, like a poverty line and fixed per capita income, or through more holistic parameters like nutritional status, absence of illness, feeling of wellness, livelihood and tenure security etc, this information is uneven across the available Ramsar-site related literature and needs to be built-up.

Specifically, MEA synergies as a policy approach may be understood as contributing meaningfully to Goal 1.b. *Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender sensitive development strategies to support accelerated investment in poverty eradication actions.*

SDG 12 which seeks to ensure sustainable consumption and production patterns, has several sub-goals that are relevant to site-based biodiversity-cluster MEAs, as well. Sustainable management and efficient use of natural resources (12.2), reducing waste generation through prevention, reduction, recycling and reuse (12.5), ensuring people have relevant information and awareness for sustainable development and lifestyles in harmony with nature (12.8) are noteworthy. As also, Goal 12.b. *Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.* Related to this, Goal 16 of inclusive and just institutions, and sub-goals 16.6 – effective, accountable and transparent institutions, and 16.7 – on responsive and representative decision making at all levels, also assume relevance.

With regard to each of these SDGs the available information from across MEA sites is uneven, and there is scope to improve data mining and information monitoring through support to



relevant institutions and networks as a first step. The concerned National Focal Points of this cluster could facilitate a Ramsar-site Development Authority network and appraise them of the need for the same.

From the available data a threefold grouping of sites is possible – of those that are doing fairly well in relation to SDGs as an area of synergy, those that are making some efforts but where there are significant information gaps as well and scope for improvement, and those where mainstream ‘development’ poses a major challenge, and things need marked improvement. However, on the whole, except for Chilika, and to some extent Vembaand, data and information management in relation to how poverty, sustainable livelihoods, hunger etc, is being addressed by each site, is an area of potential improvement overall. For Chilika, 2014 figures were that 0.02mn fishers were supported by the lagoon and that CIFRI had estimated the Maximum Sustainable Yield to be 10,000-11,500 MT (million tonnes), though the actual fish yield could be 27,000 MT. Further, there is a separate monitoring and analysis of the fish, prawn and crab landings in Chilika. Similarly, for Vembanad, a more decentralised and participatory process of monitoring under the aegis of the Vembanad Lake Protection Committee, a registered society under that the Travancore-Cochin Literary, Scientific and Charitable Societies Registration Act, 1955; and participatory mapping by the community, with assistance from ATREE, CIFRI and WWF is in place (though no figures were shared at the 2013 meet). Vembanad Lake Protection Committee is itself a federation of several Vembanad Lake Protection Forums. Further, fish resources are augmented through eight fish sanctuaries developed and maintained with indigenous knowledge. In Ashtamudi, clam fishery of the estuary is a major source of livelihood support for locals. As per 2013 data, Short Neck Clam (Yellow Clam) is the major clam fishery, supporting 3000 families. 20 MT are harvested annually of which 95% is exported, generating a revenue of 10 crores annually. However, how the revenue is divided amongst stakeholders, the share of the revenue directly benefiting the local community and those with ecosystem service-related livelihoods, the trends in these over the years etc is not known and needs to be studied with greater emphasis on SDG-MEA synergy. Sustainability of the fishery involves a traditional practice of a community-driven self-imposed seasonal ban on fishing that has been in place for over 20 yrs.

In the case of high altitude wetland like Chandertal and Tsomoriri, in contrast, there are either



no detailed socio-demographic analysis, or what is being reported are of these as a ‘threat’ (eg: Chandertal) Fishing – 1500 fishermen / 300 tons fish catch, Grazing - 20,000 cattle (6,000 of nomads). While biotic pressure as a concern is understandable, evolving more democratic and participatory approaches to resolving the challenges will serve both the wise-use aims of the Ramsar convention and SDGs. Efforts and good practices in this direction are also being attempted – ie, NCF interventions to provide free-grazing ranges by rotation for 3-5 years.

3.1.2. Key elements to focus on in order to strengthen synergies around SDGs, CEPA and Capacity Building

The matter of livelihoods being supported around Ramsar sites impels the question of what exactly are the ways in which this is happening, and what are its points of intersection with the biodiversity of the key ecosystem/ other species (large mammals endemic to the ecosystem/ migratory birds) of the site? It is possible to frame the answer as:

1. Livelihood activities that are not dependent on the ecosystem/species biodiversity but have a negative impact on it, and therefore need to be revamped to a more sustainable approach eg: farming around Kanjli, which is 100% chemical fertilizer dependent with consequent run-off to the wetland. Likewise in Vembanad
2. Livelihood that depends of the sustainability of the ecosystem and its resources more directly
 - a. Fishers are the most obvious stakeholder group in this category, in relation to most wetlands, as in Chilika, Vembanad and Ashtamudy
 - b. Pastoralists or grazers who use shoreline resources of the ecosystem, are another set of primary-sector users. This use is sometimes in a seasonal manner and with no tenure/ more tenuous customary rights than fishers, owing to their more marginal social status. Their use of the natural resource base may get denuded by mainstream development activity/ visitor pressure on the ecosystem, with consequent fallouts for livelihood.
 - c. Eco-tourism service providers through home-stays and as tourist-guides as established in Chilika and being attempted in Tsomoriri



d. Livelihoods developed around management-supporting activities (often led by the Forest Department, when the site has sanctuary status) around the site...like MNREGA employment around maintenance work or more informal alien species management activity, like the water-hyacinth handicraft of Harike.

3. Livelihood that depends of the sustainability of the ecosystem and its resources more indirectly.

Eg: livestock rearing communities, whose livestock become prey to wild predators when destruction of grazing pasture and habitat leads to reduction in the number of wild herbivores that normally constitute their prey.

Also, resort-hotel tourism that supports local employment, only because of the site of tourist interest being intact.

3.1.3. Policy Options to strengthen synergies around SDGs, CEPA and Capacity Building

It is possible to interrogate each of the previous section's categories and sub-categories further, to arrive at the policy options that need to be explored to help strengthen synergies among the MEAs, ie:

3.1.3.1 SDGs as an area of synergy

1. Where interventions are being made to reduce the negative impacts of mainstream livelihood-supporting activities like agriculture on the key ecosystem/ biodiversity of the site, can merely initiating the activity make the case for an SDG-linkage, or do critical parameters (of ecosystem health, behaviour change etc) need to be identified, and become the stated 'goals' of a cross section of key stakeholders in tangible ways to inform monitoring and progress-reporting of such (commendable and vital) undertakings? Identifying both these parameters and stakeholders could be an important policy intervention.
2. What is the relative emphasis on 'sustainable' and 'development' in an SDG goal related to livelihood? Nomadic pastoralism may be sustainable when the shoreline of a wetland is assuredly protected to be healthy and self-regenerating, however, what would a self-



determined notion of development look like for these communities? Larger herds? More secure tenure to pasture land? Access to sensitized and flexible/sensitised schooling (catering to possibly first-generation learners) for their children? Can access to these be facilitated and still serve both ‘sustainable’ and ‘development’? Deliberation and operationalising the desired outcome could be another important policy intervention.

3. Similarly, does the mere presence of an eco-tourism facility at a site, in token or even significant scale, speak of ‘sustainable development’ in relation to livelihood? Is there a need to work backwards in terms of local communities’/ people’s entitlement to secure and adequate livelihoods, in absolute number/percentage terms in relation to the population, before eco-tourism facilities can be more meaningfully stated to be in service of SDGs?
4. When resort tourism is the norm, can this be brought within the ambit of SDGs by building the private-public partnership that will ensure better opportunities for local communities, rather than the influx of migrants? This is an unexamined area in the reporting that is available.
5. Management plans are often lacking in many sites, or when they are present, and have been developed with great thought and attention to detail (eg: Tsomoriri), no information is available on the status of their implementation. This anomaly, if rectified, can be a very important tool to inform and support SDG-supporting synergies in Ramsar sites.
6. From there being no management plans to the onslaught of mainstream development that is at odds with or destroying conservation and sustainable use objectives, such as in Point Calimere, Loktak, or Rudrasagar, SDGs also offer a rallying point to reorient the focus within other departments of government to the manner in which environmental concerns are often given short shrift. The National Green Tribunal and Niti Ayog need to be appraised of matters of violations around Ramsar sites in the light of national mandates around SDGs. In not stemming the onslaught of mainstream development through more proactive approaches, the locus-standi of existing “environmental guardians” seems neither responsive nor transformative in focus.



On the whole, with regard to livelihoods and SDG-related synergies around Ramsar sites, greater emphasis on data gathering, quantifying information where relevant, applying statistical measures of significance to make the case for how they support SDGs is an important area of work.

3.1.3.2 Capacity Building as an area of Synergy

1. Scope for exchanging good practices, learning and handholding with respect to managing invasive through handicrafts, ecotourism initiatives etc.
2. Capacity building of the Forest Department in understanding their role in relation to not only domestic laws and 'Wildlife Sanctuary' status of many of these PAs, but also in the relation to the mandate and spirit of the international agreements/ MEAs, and what these mean in practical hands-on ways.

3.1.3.3 CEPA as an area of synergy

1. While the CEPA initiatives of existing NGOs are commendable – WWF, NCF, CEE and ATREE – there is also a need for CEPA to extend beyond traditional target groups of school children and local communities to mainstream media and key sectors within government and decision makers to inform more “green” and integrated approaches rather than one where departments are working at cross purposes. CEPA is vital to support the mainstreaming of wetland ecosystem functions and the ecosystem services they provide to people and nature in national development plans, other sectors’ strategies, plans and regulations, and especially in the context of the 2030 Sustainable Development Agenda and the SDGs. ‘Other sectors’ and decision makers continue to be let-off the hook while “soft targets” like schools and local communities are overemphasized currently. The lopsided focus needs to be altered both in content, key messages and communication strategy. Including mainstream media as part of the strategy to reach the general populace is also vital.
2. Of the existing initiatives – are they operating on the most optimal scale? Would they be relevant for scaling up (eg: CEPA school interventions to the state level v/s in the vicinity of the site)?



3. Related to the above, it may be value-adding to get the CEPA material – where available (NCF, WWF, CEE are some known sources that were reviewed)– for a digital library of resources on an ENVIS-like site for MEA synergies/ section of an existing site like that on the PA network/ a new section within in.
4. Interpretation centres on site could also be explored. These need to be mindful of the ecological footprint and with scope for locals to be employed for installations, guides, administrators.
5. Distinguishing between and being mindful (in reporting) of CEPA that is observance of ‘a day’ (World Wetland’s Day) v/s more sustained and behaviour –altering/ lifestyle changes that carry over and offer long-term change that has community-ownership.
6. Compiling and consolidating learning/resources from CEPA observances by other actors, who may not have a field presence (eg: NBA¹) also in a free access/online repository.
7. Existing material could further be improvised to highlight MEA linkages, domestic law provisions, MIDAs (Multiple Internationally designated areas). This would help build stakeholder engagement in following these international policy-actors (ie: MEAs) and be in service of NBT 1.

3.2 Cluster II. Strengthening synergies around all ‘site-based’ MEAs: Ramsar, WHC Natural Heritage Sites, Important Bird Areas (*of relevance to CMS) as well as CITES-flora species for and through Medicinal Plants

3.2.1 Medicinal Plants Conservation Areas in India as an avenue to strengthen MEA synergies

India has a wealth of medicinal botanicals and associated traditional knowledge. Over 6500 species of plants with medicinal value have been documented in literature. TDU, Bangalore maintains a database with references to their medicinal properties and known uses. The

¹ In 2017 the World Wetlands Day theme of ‘Wetlands for Disaster Risk Reduction’ was supported by a brochure on the theme by the Ramsar Secretariat which was translated in Tamil by NBA for Chennai schools. Similarly in 2018 the theme ‘Wetlands for Sustainable Urban Futures’ led to a web-cast with international experts on examples of Urban Built Environment that was mindful of migratory flyways and capitalising on the urban opportunities within them, for Engineering students. These need not be one time interventions, when the benefit can be magnified manifold through wider outreach, if the specific localised resources developed in each case are made available for wider-use through a web-based repository.



diversity of spread of these plants is across all the biogeographic zones, which is what lends them conveniently to an analysis for their association with site-based MEAs. At the same time, some of the species are critically endangered, and governed by trade restrictions through CITES. Botanically, these species of plants belong to 2200 genera and 386 families. The associated incredibly rich Traditional Knowledge and documented knowledge covers 200,000 herbal formulations. India has the largest insitu-conservation effort for medicinal plants through a country wide network of Medicinal Plant Conservation Areas or MPCAs.

Medicinal Plants Conservation Areas (MPCAs) represent sites or natural habitats of average 200 ha size. The Indian MPCA network has been created with deep commitment of State Forest Departments, technically supported by FRLHT/TDU with financial support from DANIDA, UNDP, GEF and NMPB over the last 25 years.

Analysis of botanical documentation of the flora in MPCAs reveals presence of conservation concern medicinal botanicals (across all life forms like trees, shrubs, herbs, grass, liana, etc.) and in several instances as a result of conscious choice of MPCA site, the presence of gene pools of critically endangered and threatened species. Table 3 lists the MPCAs with CITES-listed species.

Table 3: MPCAs with CITES species Ref: CITES Website https://www.cites.org/eng/app/appendices.php Appendices I, II and III valid from 4 October 2017			
Sl. No.	State	MPCA name	Reference MEA site
1	Kerala	Athirapalli	<i>Rauvolfia serpentina</i> (Appendix II)
		Agastiyarmalai	<i>Paphiopedulum druryii</i> (<i>Paphiopedulum Spp.</i> Appendix I)
2	Arunachal Pradesh	Mayodia	<i>Podophyllum hexandrum</i> (Appendix II)
		Salari, Bomdilla	<i>Taxus wallichiana</i> (Appendix II)
		Wanu	<i>Aquilaria malaccensis</i> (<i>Aquilaria Spp.</i> Appendix II)
3	Andhra Pradesh	Talakona	<i>Cycas beddomei</i> (Appendix I)
		Talakona	<i>Pterocarpus santalinus</i> (Appendix II)
4	Uttarakhand	Jhuni	<i>Picrorhiza kurrooa</i> (Appendix II)
		Gangi	<i>Taxus wallichiana</i> (Appendix II)
		Khalia	<i>Nardostachys grandiflora</i> (Appendix II)



While the MPCA sites located in wildlife sanctuaries, reserved and protected forests, are therefore out of bounds for direct harvest by local communities, associated with most MPCAs outside their forest boundaries are nurseries of locally available medicinal botanicals for access, use and distribution to local communities. Herein lies the linkage to SDGs supporting livelihood, nutrition and health. *Bacopa monnieri* and *Centella asiatica* both known as Brahmi in the traditional system for instance, are commonly found in wetlands.

The following tables provide details of MPCAs that are established within MEA sites. There is only one Ramsar site which has an MPCA, and that is Point Calimere with Kodikkarai. However, there are very many MPCAs associated with natural heritage sites of WHC, and IBAs of relevance to CMS.

Table 4: MPCAs within Natural World Heritage Sites Ref: ENVIS Centre on Wildlife & Protected Areas http://www.wiienviis.nic.in			
Sl. No.	State	MPCA name	Reference MEA site
1	West Bengal	Bonnie Camp	WHS - Sundarbans National Park
	Uttarakhand	Mandal	WHS - Nandadevi and Valley Of Flowers National Park
2	Maharashtra	Sawarna	WHS - Western Ghats
		Borivali	
		Amba	
		Hoyna Koli	
		Navaja	
		Amboli	
3	Karnataka	Devimane	WHS - Western Ghats
		Kollur	
		Agumbe	
		Kudremukha	
		Charmady	
		Subramanya	
		Talacauvery	
		BRT Hills	



4	Kerala	Wayanad	WHS - Western Ghats
		Silent valley	
		Peechi	
		Athirapalli	
		Anappadi	
		Eravikulam	
		Kulamavu	
		Triveni	
		Agasthiamala	
5	Tamil Nadu	Topslip	WHS - Western Ghats
		Kodaikanal	
		Thaniparai	
		Koutralam	
		Mundanthurai	
		Pechiparai	
		Nambikoil	
6	West Bengal	Tonglu Dhorthey	Biodiversity Heritage Sites declared by Environment Department, Govt. of West Bengal in consultation with West Bengal Biodiversity Board under sub section (1) of section 37 of Biological Diversity Act, 2002 (No. 18 of 2003) and rule 20 of West Bengal Biological Diversity Rules, 2005

Table 5: MPCAs within Important Bird Areas (IBA) Ref: Bombay Natural History Society website bnhs.org/bnhs/			
Sl. No.	State	MPCA name	Reference MEA site
1	Madhya Pradesh	Chappari	Kanha National Park
		Panarpani	Pachmari Biosphere reserve & Bori Wildlife Sanctuary
		Shyamgiri	Panna National Park, Panna Tiger Reserve
		Parcha	Ratapani wildlife sanctuary
2	Chhattisgarh	Amadob	Achanakmar Tiger reserve and Maniyari reservoir



3	Uttarakhand	Khandara	Govind National Park and Wildlife Sanctuary, Sandra, Kotigad and Singtur ranges (Tons forest division)
		Khaliya	Askot Wildlife Sanctuary and Goriganga Basin
		Mandal	Kedarnath Musk Deer Sanctuary and Adjoining Reserve Forests
		Jhuni	Upper Pindar Catchment area
4	Arunachal Pradesh	Lohit	Chaporis of Lohit river
5	Maharashtra	Borivali	Sanjay Gandhi National Park-Tungreshwar Complex
		Amboli	Amboli Tilara Reserve Forest
		Gullarghat	Melghat Tiger Reserve
		Nagzira	Nagzira Tiger Reserve
		Toranmal	Toranmal Reserve Forest
6	Rajasthan	Ramkund	Phulwari Wildlife Sanctuary
		Sitamata	Sitamata Wildlife Sanctuary
		Kumbalgarh	Kumbalgarh Wildlife Sanctuary
7	Andhra Pradesh	Coringa	Coringa Wildlife Sanctuary and Godavari Estuary
		Talakona	Sri Venkateswara National Park and wildlife sanctuary
		Peddacheruvu	Rollapadu Wildlife Sanctuary
		Mallur	Pakhal Wildlife Sanctuary
		Maredumilli	Papikonda National Park
8	Karnataka	Kemmannugundi	Kemmangundi and Bababudan Hills
		Talacauvery	Talacauvery Wildlife Sanctuary
		BRT Hills	Biligiri Rangaswamy Temple Tiger Reserve
		Agumbe	Someshwara Wildlife Sanctuary
		Kudremukha	Kudremukh National Park



9	Kerala	Wayanadu	Wayanad Wildlife Sanctuary
		Agasthiamala	Peppara Wildlife Sanctuary
		Triveni	Periyar Tiger Reserve/ Ranni Reserve Forest
		Kulamavu	Idukki Wildlife Sanctuary
		Eravikulam	Eravikulam National Park
		Peechi	Peechi-Vazhani
		Athirapalli	Vazhachal Forest Division
		Silent valley	Silent valley national park
		Anappadi	Parambikulam tiger reserve
10	Tamil Nadu	Kodaikanal	Berijam (Kodaikanal)
		Topslip	Indira Gandhi Wildlife Sanctuary And National Park
		Nambikoil	Kalakad-Mundanthurai Tiger Reserve
		Mundanthurai	Kalakad-Mundanthurai Tiger Reserve
		Kodikarai	Point Calimere Wildlife and Bird Sanctuary
11	Odisha	Gurudugaon	Sunabeda Wildlife Sanctuary
		Satkosia	Simplipal National Park and Tiger reserve

The potential and promise of wild populations of medicinal plants is that if properly conserved, managed and sustainably used, it is a resource that can ensure health security and livelihood security for local communities. Every ecosystem, ranging from dry deserts of Rajasthan which have the most therapeutically active neem, to those in the cold desert regions of Lahaul/ Spiti have ecosystem-specific medicinal plant resources that are most appropriate to treat ailments common to that region. In recognition of this fact Foundation for Revitalisation of Local Health Traditions (FRLHT), Bengaluru, has focused on promoting Medicinal Plant Conservation and Traditional Knowledge for Enhancing Health and Livelihood Security of Local Communities, across the country in a number of ways. A few of the existing pilots, being attempted in MEA-site related MPCAs by TDU, Bangalore, are:



3.2.1.1 Sustainable collection, value-addition, warehousing and marketing of selected species.

Under this project, two species of medicinal plants are selected by each village committee. The selection itself is informed by criteria of earlier projects/informed by inputs from the forest department. This is followed by a protocol development. Factors like threat status, market value, local availability are determined. Thereafter, the community is trained in relation to conservation, management and sustainable use of these species. The project is underway in 26 villages across 16 forest divisions of Karnataka, and in Peechi and Silent Valley (4+5 Eco-development committees or EDCs engaging Adivasis settled in the buffer zones) in the Western Ghats in Kerala. The project is funded by the National Medicinal Plants Board.

Through TDU-led awareness meeting, Task teams of 15-20 members are formed for this purpose from within the community. Criteria for membership in the task team include satisfying its participatory and representative nature. Members from the forest department, village forest committee members, youngsters, older people, women and SHG members are included. To formalise and frame such committees, members' names are recorded, along with their age, and a proof of identity is collected. Collectors are listed out.

The Task teams have the responsibility to oversee sustainable harvest and monitor the same. From among the designated collectors, who will give what, is monitored. TDU as a catalysts attempts to establish a market linkage for the collectors/ task team.

The 'market' is an amorphous entity in most cases. Members of the Task team are often already into the market through personal arrangements. Middlemen are involved in a big way. Currently cliques/smuggling arrangements also prevail in a big way. To counter this, what is being attempted is tie-ups with established industries. For instance, Salacia is being sold by collectors to middle men at Rs 10/kg but the market price is 600/kg. Establishing ties with industry for fair price based pre-harvest tie-ups is at the core of the effort. Oushadi and Kottakkal in Kerala and Himalaya have been some of the willing partners.

Challenges to the effort have been experienced in the form of local-in-fighting once the 'project'/TDU oversight is withdrawn. Willingness/motivation for the community to honour their side of the arrangement is tenuous. Festival-related need for money causes collectors



to sell small amounts to middle men v/s accumulating to pool into the larger target amount for bulk supply to industry-buyers. On the buyer-side, citing the reason that consumers are very picky about smell, taste, etc of the end product and that changing the supplier is a risk, industries are also hesitant to come forward and forge new supplier-agreements. There is also a schedule that is followed at the ayurvedic-formulation manufacturer's end. For this reason middle-men/ traders often become the preferred point of supply for industry to honour the schedule, in order to avoid the 'transaction costs' involved in negotiating with individual collectors. Traders also offer the advantage of being a single-point of contact for "all" ingredients, when more than one (as is usually the case) goes into the preparation of an ayurvedic formulation.

The question of what is a fair price to the collector, is also something that has to be negotiated on a case-by-case basis. In negotiating this, the previous year's collector's selling price, and current year's market price are taken into consideration with the VFC/JFMC aiming for a 10% hike over the previous year's price ideally.

Getting buyers to honour their pre-negotiated agreement when market prices fall below prior-agreed prices is a challenge. Himalaya v/s others. Local buyers cheat on price as well as weight. The strength of the approach is emphasised as no longer having to be at the mercy of middle-men traders, and the strength of the collector's collectives.

3.2.1.2 Ethno-veterinary practices for Animal Health and associated Medicinal Plants

Domestic milk production in currently excess of the domestic demand. Amul milk cooperative brought about this excess collection and to some extent addressed the issues by converted excess milk into powder and storing it. India is technically in a position to export milk, however, hormonal and anti-biotic residues make Indian milk unwelcome in export markets. The National Dairy Development Board (NDDB), DST and Milk Cooperative Federations of Karnataka and Kerala approached FRLHT/TDU for a solution to move towards promoting organic milk. From this impetus emerged an investigation into the effectiveness and desirability of switching to ethno-medical botanicals.



Addressing mastitis has proved to one specific case of success. When afflicted by mastitis, the cow has to be fed, but the milk has to be rejected causing considerable financial hardship to the owner. Pathogens make the milk not safe for consumption. Moreover, one fourth or even half of the udder can become permanently defunct. Herbal medicine can address this issue if the condition is not far-advanced. Mastinil is the name of herbal drug developed to treat the condition. While western veterinary treatment with antibiotics involves a minimum cost of Rs 300 per episode, Mastinil came at a fraction of the price at Rs 60 per episode.

The first unit established in Kaup, Udupi and servicing the southern states grew from a revenue of Rs. 5 lakhs to Rs.35 lakhs over a 15 year period. Health security of agrarian communities as much as that of their livestock, is linked to livelihood security.

Investigating and documenting the cost effective traditional knowledge and resources for animal health available in the community around MEA-site based MPCAs could inform locally owned and run enterprises the capitalise on TK to promote the SDGs.

3.2.1.3 Herbal medicinal plant gardens

This Equator-award winning initiative happens to have linkages with (among others) the Amadob MPCA in the precincts of the Achanakmar Tiger reserve and Maniyari reservoir in Chhattisgarh state.

Chhattisgarh, with 44 percent forest cover spread over 32 Forest Divisions, host 1525 different medicinal botanicals of which 325 species are marketed in large quantities. There are 32000 Joint Forest Management Committee (JFMCs). In the remote villages in the forested areas, both humans and animals are treated by traditional healers with medicinal plants from the forests. The traditional healers are mostly from the Baiga, Gond and Pando communities. They have a vast repository of knowledge on their endemic medicinal plants.

Both the community and traditional healers have the knowledge of the properties and importance of the locally available plants/ trees and it is a living tradition. The Baiga use several plant matters such as *tikhur*, *mahua*, *charota*, *patal kumhada* etc for nutrition in times of food-stress and also as food supplements. To ensure a continuous and adequate supply of medicinal plants from the forest traditional methods to regulate usage, conserve, and



protect these plants have been practiced. This oral-knowledge has been transmitted inter-generationally.

The importance of herbal and traditional medicines has been gaining recognition over the last few decades, leading to overexploitation for commercial purposes, with concomitant population decline in species and even extinction. Several national and multi-national drug companies and organizations have been exploiting Chhattisgarh's natural resources. They lure the poor local community and utilise their know-how without passing on to them even a fraction of their profit. This puts community healthcare as well as healthcare-centred livelihood at risk.

In order to ensure that the TK of these traditional healers of folk medicine is duly recognized and protected under law and they are assured benefit sharing in any profitable venture that is based on their TK and practices, Mr. Nirmal Kumar Awasthi, set up the NGO Paramparagat Vanoushadhi Prashikshit Vaidya Sangh (PVPVS) in Bilaspur. This was even prior to Chhattisgarh state being formed in 2002.

In 2008, the Chhattisgarh Medicinal Plant Board invited PVPVS to submit a project proposal to prepare a baseline of traditional healers in the state. The survey helped prepare an exhaustive database on the existence and status of traditional healers in the state.

A UNDP GEF project "Mainstreaming conservation and sustainable use of medicinal plant diversity in three Indian States" (Chhattisgarh, Uttranchal, and Arunachal Pradesh) was implemented between the years 2008 to 2014. The budget for Chhattisgarh was Rs. 1712 lakh, of which Rs. 750 lakh was contributed by UNDP GEF and balance by the central government. FRLHT Bangalore was a partner. The project's focus was on promoting in-situ and ex-situ conservation, including provisions in law that enables conservation of forest produce; strengthening the respective State Medicinal Plants Boards.

The State Planning Commission, Government of Chhattisgarh's approach to the Twelfth Plan (2012-2017) – "Inclusion through Human Development" emphasises (page 33-34) promotion of agro/agro-processing industries. A good network of rural warehousing, cold storages and cold chains was identified as a priority. Incentives on investments in rural Chhattisgarh for PPP projects are stated to be encouraged as well. So also, pharmaceuticals are identified as an area



of untapped potential. Specifically, plant based derivatives and the availability of raw material in the form of medicinal and aromatic plants for formulations. However, citing ‘economies of scale’, large pharmaceutical and herbal medicine companies are indicated as being welcome to explore business ventures. Moreover, a dedicated industrial park is posited as the strategy to encourage investments in this area. Whilst this report acknowledges the support of UNDP India and its Chhattisgarh Programme Representative, and the idea of promoting plant based herbal medicines seems to have found favour with the State government, capitalizing and building on the traditional knowledge of community based organisations does not seem to be the vision of State policy as contained in it. In this respect both the inclusion and human development aspects are suspect in policy-speak, and this is where an MEA-synergies driven intervention can effect a positive change in focus.

When the UNDP-GEF project neared closure, UNDP introduced the NGO (PVPVS, Bilaspur) to the Centre for Environment Education, Ahmedabad to prepare a project proposal focussing on medicinal plant biodiversity conservation and augmentation in tandem with the knowledge and practices of traditional healers and local user community. UNDP integrated its initial grant to the CEE-managed Small Grants Projects (SGP) along with trainings to help develop a revenue-model based project.

The SGP project was formulated with an objective to conserve medicinal plants, so that these can be protected and conserved for generations. The project aimed to make benefits of abundant natural resources in the state for the poor rural community by securing its health and livelihood. The effort was to plan and work closely with the traditional healers (Vaidyas, Baigas) and all local community and stakeholders to help them to conserve and protect their forest rights. In order to provide a platform and recognition to these traditional healers, the NGO Paramparagat Vanoshadhi Prashikshit Vaidya Sangh (PVPVS) Bilaspur formed the Traditional Healers Association, Chhattisgarh (THAC). The Association has more than 1100 traditional Health Practitioners and Vaidyas.

The project ran from mid 2015 to end 2017 for a total of 28 months, covering three districts: Mungeli, Bilaspur and Korba. The grant holder was the NGO PVPVS, Bilaspur and grantee partner THAC, Bilaspur.

The total project cost was about Rs 65 lakhs of which the GEF UNDP SGP grant amount was about a third. The bulk of the project co-financing included community and NGO contributions,



including a little over 10% from THAC's cash contribution. THAC raised this amount from its membership fee totalling Rs. 5,84,000 and the sale receipts from selling raw medicinal herbs in health camps amounting to Rs. 1,16,500. These figures point to the economic viability and opportunity in such enterprises.

3.2.2 Policy Options to strengthen synergies among site-based MEAs with an emphasis on SDGs - a strategy centred on medicinal plant botanicals

1. The 2006-2010 UNDP project and 2008-2014 UNDP-GEF project initiated efforts like herbal home gardens. Whilst MEA sites were not the focus and only incidental to the project, nurseries associated with MPCAs and in their vicinity, and the subset of MEA-site linked MPCAs assumed relevance in the process. A follow-up and impact assessment and evaluation of the positive spill-overs from MEA-site linked MPCAs could be undertaken. Such an evaluation/impact assessment will have transfer-of-learning and demonstration value for other (non-MEA site related) MPCA site-based interventions as well.
2. MEA-linked MPCA site-specific species could benefit from R&D to evaluate the potential of each medicinal plant; its sustainable management, processing and handling logistics; potential market and linkages to community-based livelihood development. More rigorous and extensive scoping exercises specific to site-specific plant botanicals and communities whose health and livelihoods can be improved in relation to these, need to be undertaken, as have been flagged by a number of researchers.
3. Enterprise development around herbal medicines where an Amul-like model can be recreated to provide income and employment for local communities. Community-owned enterprise is key for the SDGs 1,2 and 3 to acquire a strong basis in relation to MEA sites, and MPCAs can serve as the conduit.
4. Improving the linkages to institutionalised access and utilisation of TK and resources around MEA-linked MPCAs.

World Health Organization's Traditional Medicine strategy (WHO also being a key organisation for MEA and other International Organisation (IO) synergies) 2014-2023 developed in response to the World Health Assembly resolution on traditional medicine "aims to support Member States in developing proactive policies and implementing action plans that will strengthen the role TM plays in keeping populations healthy." It includes approaches like integrating Traditional Medicine within national health care systems,



where feasible, by developing and implementing national TM policies and programmes while assuring safety and quality of products and services, qualification of practitioners etc. Nothing could be more relevant to the primary health care system in India.

In 1971, vide a Parliamentary Act, the Central Council for Indian Medicine (<https://www.ccimindia.org/introduction.php>) was set up and even today continues to regulate the education in systems like Ayurveda, Siddha, Unani and Sowa Rigpa (Tibetan medicine). In March 1995, a department of Indian System of Medicine and Homeopathy (ISM&H) was created under the Ministry of Health and Family Welfare in the Government of India and in November 2003 it was renamed as Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH). In 2005, the launch of the National Rural Health Mission (NRHM) included the strategy of ‘mainstreaming of AYUSH and revitalisation of Local Health Traditions (LHT)’. In 2014 an independent Ministry of AYUSH, Government of India was established, indicating the increasing importance accorded at the national level to alternate system of health care.

However, a National Health System Resource Centre (NHSRC) report of 2010 on the availability and access of quality AYUSH services and Local Health Traditions (LHT) for all, points to how the “architectural correction” that the NRHM mandated to strengthen the public system of basic health services, so essential especially for the most marginalised sections, leaves room for improvement. Across 18 states, OPD utilisation of co-located AYUSH services ranged from 20-60%, when household level utilisation of LHT was 80-100% and both the majority of doctors (75%) and the public at large, reposed faith in the effectiveness of AYUSH and LHT for both acute and chronic conditions. It was only special emergency conditions that were perceived to need Allopathy.

The final link between supply and demand that can be viably forged around an SDG like health and well-being is a project waiting to be demonstrated.

Improving community capacity for conservation and sustainable use of medicinal plants also needs more focused intervention and transfer of learning where possible. Handholding the transfer of good-practices in community facilitation, through peer learning across the Forest Department is another area requiring intervention.



3.3 Cluster III: Synergies between the ITPGRFA and CBD

Under the ITPGRFA, the international community provides, among other things, for the establishment of an effective system for protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants in ways that protect the rights of the farmers. India has a PPVRA Act and Authority to look after legal and institutional aspects of protecting farmer's rights. In addition, at the field level several interventions are underway by NGOs like the Deccan Development Society, Gene Campaign and Bioversity International to promote community seed banks and strengthen the linkages between local farmers and national systems that support and recognise their efforts.

Genetic diversity that is conserved and thriving in in-situ conditions, is crucial for food security in conditions of widespread land degradation and climate uncertainties. In this regard, the PGRFA establishes a crucial link between all three Rio Conventions as well, though UNFCCC and UNCCD are not part of the BLG-MEAs.

Research indicates the reluctance of farmers to cultivate traditional varieties, and the overwhelming move towards HYVs and hybrids, especially in the plains. However, mountain areas and regions with fragile ecologies are indicated to be willing to use genetic diversity primarily because hybrids are supported by the ecological constraints. A proactive approach to conservation and use of germplasm as a risk minimizing tool, especially when livelihood and income security can be ensured not only by increasing production and meeting targets, but also minimising losses and planning to reduce risk, is what can be promoted through MEA synergies of this cluster .

- Community seed banks set up in NGO project locations to promote use of traditional seed varieties can benefit from closer integration with the PBR process of by being a special sub category within the PBR.
- More field observations and reporting on land degradation related and climate change resilience of local seed systems can be documented and reported through more conscious strengthening of MEA synergies.
- As being attempted by the Gene Campaign, Farmer Field Schools and Farmer Exchange visits can be supported as a capacity building and CEPA component for this cluster.



4.0. Conclusions

This document makes the case for field-level synergies of BLG MEAs in the Indian context. Synergies have been conceptualised in clusters/ among sub-sets of the BLG, in accordance with what will serve the objectives of the convention as well as the broader sustainable use objectives, and larger framework-enabled synergies (as detailed in Annex-2). Specific recommendations related to MEAs as SDG-enablers, and in connection to CEPA and Capacity Building have been made in connection to each of the three clusters discussed (see pp.18-21, 30-31), and are not being repeated here.

The guiding principle in arriving at these suggestions, as proposed by Kliami (2012) have been:

- Country-driven, practical synergy: what is operational in some measure at the national level and what more could be done?
- Scope for real synergy based on needs: Time, effort, and commitment to collaborate across ‘silos’
- Recognition of the fact that no single convention/organisation alone can address the challenges that lie ahead in achieving the conservation and sustainable use of biodiversity

One area for synergy that the CEBPOL project has consciously put energies into since 2015 – of fostering a common platform for the National Focal Points – as also emphasised by the CBD guidance (Annex 2) has not been included here. Based on the two stakeholder consultations attempted, it is worth reiterating in some length, the valid observations made by Taneja (2002: 14) on this matter:

a) Constraints upon the designated focal points at the national level: a. the principal focal points for the conventions are often at the level of joint secretaries (senior officers of the Indian Administrative Service) in the MoEF. These focal persons are often on time-bound postings and are unable to institutionalise a system of coordination with the other focal points b. the officers functioning below this level, who are technical employees of the GoI/MOEF and in more



permanent positions, are often dealing with several programmes of the MoEF, related to or independent of the conventions. Their duties include researching and presenting the national position in the conventions, and dealing with all domestic issues relating to the conventions, in addition to overseeing numerous institutions and initiatives that are independent of the conventions. They are thus unable to make the time to actively coordinate with the focal persons of the other conventions.

*b) The thrust areas of the various conventions are different from each other. This has been cited as a constraint in relation to being able to coordinate the implementation of the various conventions. While almost all conventions call for national reports and the enactment of legislation or policy statements, the content of these can be considered to be in somewhat separate spheres. E.g. CITES and Ramsar do not have many complementarities. **On the other hand, Ramsar and CBD may have significant complementarities as they are both centered on the wise use/sustainable use concept. However, complementarities in implementation are not made explicit in any of the policy statements or plans of action articulated by the Gov.***

It is this last part that the author has flagged that has since (since the time of her writing in 2002) opened up for field level-practical synergies through such high-profile frameworks as the SDGs and NBAPs. It is also what this report seeks to make the case for.

Finally, it is also relevant to reiterate CBD Decision XIII/21, with elements of advice for the GEF concerning the funding to support the objectives and priorities of the Convention, consistent with the mandates of the GEF, and to make note of the strategic guidance offered for the eighth replenishment of the GEF Trust Fund as an **opportunity to leverage project-ideas that promote MEA Synergies** at the National level for grant requests. I.e: The decision recalls the mandate of the Global Environment Facility as the institutional structure entrusted by the Convention to operate the financial mechanism of the Convention on Biological Diversity, and *“Encourages the Global Environment Facility to continue and further strengthen integrated programming as a means to harness opportunities for synergy in implementing related multilateral environmental agreements as well as the 2030 Agenda for Sustainable Development and its Sustainable Development Goals, in particular Sustainable Development Goals 14 and 15”*



5.0 Persons who served as discussants in connection to this document

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6.0 Annexures

Annexure 1

Options to Enhance Synergies Among the Biodiversity - Related Conventions

Consultation Draft

1. At its twelfth meeting, in decision XII/6, the Conference of the Parties to the Convention on Biological Diversity decided to establish an informal advisory group to prepare, in consultation with the Secretariat, a workshop with the task to prepare options which could include elements for a possible road map, for Parties of the various biodiversity-related conventions to enhance synergies and improve efficiency among them, without prejudice to the specific objectives and recognizing the respective mandates and subject to the availability of resources of these conventions, with a view to enhancing their implementation at all levels.
2. The workshop was held in Geneva, Switzerland, from 8 to 11 February 2016. The report of the workshop was presented to the Subsidiary Body on Implementation (SBI 1) for consideration at its first meeting (UNEP/CBD/SBI/1/INF/21), together with a note by the Executive Secretary (UNEP/CBD/SBI/1/9) with an addendum on possible recommendations arising from the options for action identified by the workshop (UNEP/CBD/SBI/1/9/Add.1).
3. The Subsidiary Body prepared a draft decision for consideration by the thirteenth meeting of the Conference of the Parties (COP 13) on enhancing synergies among the biodiversity-related conventions (UNEP/CBD/COP/13/2) and also included elements related to synergies in reporting requirements under the various conventions in its draft decision on the sixth national reports.



4. The Subsidiary Body also requested that additional work be undertaken and presented by the Executive Secretary for consideration by the Conference of the Parties at its thirteenth meeting (UNEP/CBD/SBI/REC/1/8). In particular, the SBI requested the Executive Secretary to undertake further analysis of the outcomes of the workshop and actions as presented in the note by the Executive Secretary on possible recommendations¹ and, in consultation with the Informal Advisory Group, the Liaison Group of Biodiversity-related Conventions and Parties to the biodiversity-related conventions through appropriate channels, to “refine, consolidate and streamline the outcomes of the workshop, including synergies that may be relevant between two or more of the biodiversity-related conventions as well as the Protocols to the Convention, including:
 - a) Options for actions by Parties which may include voluntary guidelines for synergies at the national level;
 - b) Options for action at the international level that includes a road map for the period 2017 2020 that prioritizes and sequences actions and identifies actors and potential mechanisms involved.”
5. This note prepared by the CBD Secretariat responds to that request, and provides the foundation for a pre-session document for consideration at COP 13 that will be prepared by the Secretariat taking into account responses received on the consultation draft.

¹ UNEP/CBD/SBI/1/9/Add.1.



Options for Enhancing Synergies Among the Biodiversity - Related Conventions at the National Level

A. Introduction

Background

1. The present annex focuses on options for action for Parties of the various biodiversity-related conventions to enhance synergies at the national level. These are derived from the outcomes of the workshop on synergies among the biodiversity-related conventions (the workshop) and actions as presented in the note by the Executive Secretary on possible recommendations arising from the options for action identified by the workshop².

Purpose and scope

2. The options for action are voluntary and intended to serve as guidance for Parties to enhance synergies and cooperation in the implementation of the biodiversity-related conventions, their national biodiversity strategies and plans (NBSAPs), and the Strategic Plan for Biodiversity 2011-2020.
3. They are intended to provide concrete options of actions for Parties to take in support of effective and coherent implementation of the conventions at the national level.
4. The implementation of these options should be to the mutual benefit of the conventions concerned and be compatible with their provisions, obligations, mandates and objectives.
5. Options should be adapted to suit national circumstances: not all options for action would be applicable to all countries and additional options not included in this note could also be taken up by countries³. Some options for action may be relevant to enhancing synergies between just two of the instruments or among a subset of them, rather than among all seven conventions. Some options would have particular relevance for the Protocols of the Convention on Biological Diversity.

² UNEP/CBD/SBI/1/9/Add.1.

³ For example, the UNEP "Sourcebook of opportunities for enhancing cooperation among the biodiversity-related conventions at national and regional levels" (UNEP, 2015) provides examples of experience.



6. Parties could be encouraged to prioritize the various options for enhancing synergies, taking into account their NBSAPs, and to report on their prioritization and any actions take to enhance synergies at the national level in their national reports.

B. Options for action for Parties of the various biodiversity-related conventions to enhance synergies at the national level

Building on a foundation of common planning frameworks and coordination mechanisms

7. Major tools for promoting synergies among the biodiversity-related conventions at the national level are provided by (1) common planning frameworks and (2) coordination mechanisms.

1) The Strategic Plan for Biodiversity 2011–2020, the Aichi Biodiversity Targets and national biodiversity strategies and action plans

Rationale

8. The NBSAP aligned to the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets can serve as a unifying framework to promote and benefit from synergies among the biodiversity-related conventions. National plans aligned to the 2030 Agenda for Sustainable Development and Sustainable Development Goals⁴ could also contribute in this regard.

Options for action

9. Parties are encouraged:
 - a) To include in their NBSAP, relevant actions to implement commitments under each of the biodiversity-related conventions to which they are a Party, in line with the commitments agreed to under the conventions concerned. In doing so, Parties may wish to take account of existing COP guidance related to updating or revising and implementing NBSAPs, including COP decisions IX/8, X/2 and X/5;

4. General Assembly resolution 70/1, annex.



- b) To conduct a mapping and gap analysis of relevant implementation actions in terms of the inclusion of commitments described in subparagraph (a) above, including those related to contributions under the 2030 Agenda for Sustainable Development and the Sustainable Development Goals, and:
 - i) Identify potential needs from the gap analysis;
 - ii) Assess whether actions on synergies in NBSAPs and other relevant national implementation plans are in line with priorities, commitments and opportunities;
 - iii) According to national need, review existing action plans for implementation to include implementation of the other biodiversity-related conventions;
- c) In revising or updating other related strategies and action plans, make use of the Aichi Biodiversity Targets and prepare Target-driven work plans for all biodiversity-related conventions;
- d) Make use of indicators of other relevant conventions in implementing measures towards the Aichi Biodiversity Targets and, as appropriate, prepare relevant national indicators for other biodiversity-related conventions to track effective implementation and monitoring of actions and also to feed into national actions related to the 2030 Agenda for Sustainable Development and the Sustainable Development Goals;
- e) Ensure the appropriate participation of all relevant stakeholders and of indigenous peoples and local communities in the finalization and implementation of the NBSAP for better articulation and planning to achieve synergies;
- f) Provide for linkages between the NBSAP and other relevant national implementation plans and strategies, for example those related to the 2030 Agenda for Sustainable Development, as well as to the national clearing-house mechanism and/or other information-sharing hubs.

2. Institutional arrangements and coordination mechanisms

Rationale

10. Coordination mechanisms and coordinated actions serve as the foundation for enhancing coherence and synergies in the implementation of the biodiversity-related conventions across all issue areas.



11. Consideration of coordination mechanisms needs to take account of: (a) the great variation in national circumstances, including the conventions to which a country is a Party, which has a bearing on the need; (b) the fact that institutional and coordinative arrangements are made at the discretion of the Party; and (c) differences between the conventions in their requirements of national authorities.
12. Consideration could be given to building or enhancing coordination mechanisms around national focal points and equivalent authorities of the conventions at the individual and the institutional levels. Advantage should be taken of relevant existing institutions to work on common issues under biodiversity-related conventions.

Options for action

13. Parties are encouraged to establish or strengthen a formal coordination mechanism for efficient coordination among national focal points and relevant authorities of biodiversity related conventions and to consider further strengthening such coordination mechanisms by providing for meaningful engagement of other stakeholders, including women, young people and indigenous and local people.
14. Such national coordination mechanisms could/should:
 - a) Facilitate collaboration and coordination between national focal points or equivalent authorities of biodiversity-related conventions, including to exchange information on priorities with regard to actions for implementation and resource needs so that there is a common understanding;
 - b) Potentially oversee or advise national priority-setting, including funding options, for action on areas of common interest and to achieve synergies;
 - c) Facilitate coordinated needs assessments, for example on joint actions for implementation of biodiversity-related conventions in the framework of NBSAPs, and for targeted capacity-building;
 - d) Facilitate a national coordination process related to national reporting to the various biodiversity-related conventions to, inter alia:



- i) Harmonize data collection and reporting;
 - ii) Link focal points and institutions to meet reporting requirements;
 - iii) Supervise quality control, consistency of reporting and adherence to reporting deadlines;
 - iv) Ensure proper standards for databases.
- (e) Facilitate enhanced coordination among the conventions at national level with respect to communications, information-sharing and awareness-raising, that would:
- i) Enable the national entities responsible for the various biodiversity-related conventions to collaborate in the development of communications and awareness raising, including through the international observances that relate to the conventions, in conducting joint information and awareness campaigns; and to integrate and coordinate messages related to the various biodiversity-related conventions to which they are a Party;
 - ii) Enable preparation of a national biodiversity-related communication and awareness strategy and implementation plan, mindful of synergies and mutual benefit;
 - f) Facilitate coordination among the conventions at the national level with regard to resource mobilization and utilization that would:
 - i) Enable development of a joint resource mobilization strategy, taking into account the strategic plans of individual biodiversity-related conventions and mainstreaming of biodiversity into different sectors;
 - ii) Improve and ensure collaboration between the national focal points of biodiversity-related conventions and the operational focal point of the Global Environment Facility (GEF), as well as the focal points for other conventions for which GEF serves as a financial mechanism, as appropriate, with the goal of having relevant priorities addressed in GEF projects;
 - iii) Enable the GEF operational focal point to share information with the national focal points of the biodiversity-related conventions on accessing funds through the GEF biodiversity focal area;



- iv) Facilitate consultation among the national focal points of biodiversity-related conventions in discussions on the utilization of the national GEF funding allocation for biodiversity;
 - v) Enable the consideration of conducting pilot projects for promoting synergies on thematic areas, such as plant and animal health to support food security, food safety and environmental protection, including designing innovative projects for funding by the GEF to contribute to synergistic action;
 - vi) Enable the national focal points of biodiversity-related conventions to coordinate their funding efforts for synergies among the conventions by engaging with donor country representatives in their countries.
- (g) Facilitate coordination among the conventions at the national level with regard to capacity-building, for example the training of national focal points, the conducting of joint workshops on common areas of responsibility among the conventions, such as national reporting and resource mobilization, the identification of common areas of capacity-building needs and the delivery of coordinated capacity building for implementation of the conventions (see subsection 6 of this section);
- (h) Help to facilitate the holding of national preparatory meetings before the meetings of the governing bodies of biodiversity-related conventions, involving officials and stakeholders associated with the other biodiversity-related conventions.
- (i) Enable the national focal points, or equivalent authorities, of biodiversity-related conventions to collaborate with other sectors, as appropriate (e.g. climate change, inter-ministerial dialogue)
15. Informed and benefiting from such national coordination mechanism, Parties are encouraged:
- a) To take into account mutual supportiveness of biodiversity-related conventions in developing national policies;
 - b) To undertake an assessment of national needs for coordination and synergy of commitments under the biodiversity-related conventions;



- (c) To undertake an assessment of the capacity-building needs and institutional arrangements for coordinated and synergistic efforts or approaches for effective implementation of biodiversity-related conventions;
- (d) To develop a strategic plan for coordinated, synergistic implementation of biodiversity related conventions;

Actions in specific areas

16. In addition to the options for actions that would be facilitated by enhanced coordination mechanisms, described in sub-section 2, above, the following sections outline specific options for action in the areas of: the management of information and knowledge, national reporting, monitoring and indicators; communication and awareness-raising; the science-policy interface; capacity-building; and resource mobilization and utilization.

3. Management of information and knowledge, national reporting, monitoring and indicators

Rationale

17. Collaboration in information-sharing and knowledge-management can provide mutual benefits in the implementation of the biodiversity-related conventions, particularly with regards to reporting and monitoring. Opportunities to reduce reporting burdens may lie in overlapping data requirements, and accessing relevant data from shared sources. The development and refinement of indicators for the Sustainable Development Goals will have implications for biodiversity-related conventions.

Options for action

18. Parties are encouraged:
- (a) To develop thematic national databases, or strengthen existing databases, that are open and interoperable between conventions, while having adequate appropriate safeguards;
 - (b) To exchange information and experience across conventions on tools, mechanisms and best practices for data collection and reporting as well as information and knowledge management;



- (c) To undertake an inventory of their datasets to better understand the availability of information and approaches across conventions and identify commonalities of data across some or all of the conventions;
- (d) To update clearing-house mechanisms to streamline reporting under the different biodiversity related conventions;
- (e) To ensure that reporting under each biodiversity-related convention benefits from the input of other biodiversity-related conventions;
- (f) To contribute mutually to discussions regarding biodiversity-related indicators under each of the conventions and to discussions on development and refinement of indicators for the Sustainable Development Goals;
- (g) To establish linkages of the national focal points with the agency designated for reporting on achievement of the Sustainable Development Goals (national statistical agency in many countries) to harmonize information on the Aichi Biodiversity Targets and Indicators;
- (h) To explore linkages of the databases of member countries of biodiversity-related conventions to the national statistical database;
- (i) To make use of global tools including UNEP Live and InforMEA.

4. Communication and awareness-raising

Rationale

19. Understanding of the social and economic importance of the objectives of the biodiversity-related conventions and their mutually supportive relationship is essential to enhance synergies in their implementation.

Options for action

20. Parties are encouraged:

- (a) To take measures to improve understanding of the specific and related objectives of each of the biodiversity-related conventions;
- (b) To take measures to ensure that the national entities responsible collaborate on the



various international observances relevant to and promoted by the biodiversity-related conventions to which they are a Party in order to increase awareness of the conventions, the issues they address and their interrelationship.

- (c) To utilize information from all the biodiversity-related conventions and not work in silos;
- (d) Develop web-based communication tools for national audiences relevant to all the biodiversity-related conventions, their objectives and synergies between them, which could include a single entry point to channel users to the information sought and other related information and interactive features including for sharing success stories.

5. Science-policy interface

Rationale

21. The conventions have a common objective to base the advancement of policy and assessment of progress on the best available science and, in areas of overlap, draw from shared bodies of science. The work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) can contribute to each of the conventions.

Options for action

22. Parties are encouraged:

- (a) To establish and make use of a national roster of experts across all biodiversity-related conventions;
- (b) To enable the collaboration and involvement of national scientists engaged in the processes of the biodiversity-related conventions in the science–policy interface, for example that related to IPBES;
- (c) To enable the biodiversity-related conventions to contribute jointly to the development of assessments, scenarios and models, and other tools catalysed by IPBES;
- (d) To establish a science–policy platform or coordination mechanism at national level, involving all relevant institutions, to: ensure use of the best available knowledge; interact with IPBES in a timely, coherent manner and; strengthen implementation;
- (e) To assess the needs of the seven biodiversity-related conventions from the national perspective in order to provide input to the next IPBES work programme;



- (f) To establish institutional arrangements to enable interface between scientists and the national officials responsible for the development and implementation of policy related to the biodiversity-related conventions;

6. Capacity-building

Rationale

23. Strengthening national capacity for implementation is of common concern to each of the biodiversity-related conventions. This includes the need to strengthen knowledge and skills, including on synergies among the biodiversity-related conventions; increase coordinated capacity building and awareness-raising efforts among the biodiversity-related conventions; increase human and financial resources dedicated to the implementation of the biodiversity-related conventions and towards greater cohesion in their implementation, and; strengthen the sustainability of capacity building.

Options for action

24. Parties are encouraged:

- (a) To prioritize skills and capacities of human resources, including national focal points of biodiversity-related conventions, and assign or delegate roles and responsibilities appropriately;
- (b) To provide common training and other learning opportunities to the national focal points of the biodiversity-related conventions and other relevant staff to build capacity and mutual understanding of:
 - (i) Each of the biodiversity-related conventions, including their specific objectives, with a view to promoting synergies, pooled resources, and the retention of skills and knowledge;
 - (ii) The role of indigenous and local knowledge for coordinated integration in the implementation of biodiversity-related conventions;
 - (iii) Communication methods to raise awareness on the value of biodiversity and ecosystem services with their respective high-level policy decision-makers;
- (iv) Technical knowledge on synergy and coordination.



- (c) To conduct joint capacity-building workshops for entities with responsibilities for the biodiversity-related conventions on common areas of responsibility among the conventions, such as national reporting and resource mobilization;
 - (d) To identify common areas of capacity-building needs through a synergistic approach;
 - (e) To conduct coordinated capacity-building for implementation of biodiversity-related conventions;
 - (f) To undertake measures designed to ensure the sustainability of national capacity-building, including through:
 - (i) Training trainers for the biodiversity-related conventions including scientists and policy-makers;
 - (ii) Creating, updating and/or improving databases and platforms for information sharing to ensure institutional memory and consolidation of human resources available for implementation of biodiversity-related conventions;
 - (iii) Developing a curriculum on biodiversity and advocating its inclusion in relevant university faculties to support and ensure sustainability in capacity-building and synergistic implementation of biodiversity-related conventions;
 - (iv) Conducting targeted community capacity-building for effective assimilation and coordinated implementation of biodiversity-related conventions at site and national level.
25. Parties should take advantage of existing networking opportunities for capacity-building to help synergistic implementation of biodiversity-related conventions.

7. Resource mobilization and utilization

Rationale

26. Opportunities to strengthen synergies among the conventions in the areas of resource mobilization and utilization include measures to promote coordination in resource mobilization, including through relevant international financial mechanisms and instruments; and to increase the sharing of relevant information across conventions.



Options for action

27. Parties are encouraged:

- (a) To ensure adequate staffing dedicated to the biodiversity-related conventions for their effective and synergistic implementation and leverage appropriate financial support for effective implementation of the conventions through advocacy and by demonstrating benefits;
- (b) To utilize some of the national Global Environment Facility (GEF) funding allocation to implement aspects of the NBSAP that serve common objectives of biodiversity-related conventions;
- (c) To collaborate regionally to explore regional opportunities for fund-raising to foster synergies among the biodiversity-related conventions and to share, at regional and subregional levels, best practices and lessons learned from successful access to the GEF biodiversity focal area.



Table 1: Links between Sustainable Development Goals and targets and key multilateral environmental agreements

Multilateral environmental agreement	Focus	Link to Sustainable Development Goals and targets
Convention on Biological Diversity	Conservation of biodiversity; sustainable use of biodiversity; fair and equitable sharing of benefits arising from the use of genetic resources	<p>Goal 1, targets 1.4 and 1.b;</p> <p>Goal 2, targets 2.3, 2.4, 2.5, 2.a and 2.b;</p> <p>Goal 3, target 3.8; Goal 6, target 6.6; Goal 8, target 8.4; Goal 9, target 9.5;</p> <p>Goal 11, targets 11.4 and 11.a; Goal 12, targets 12.2 and 12.8; Goal 13, targets 13.3 and 13.b;</p> <p>Goal 14, targets 14.1 to 14.7, 14.a, 14.b and 14.c;</p> <p>Goal 15, targets 15.1, 15.2, 15.4, 15.5, 15.6, 15.7, 15.8, 15.9 and 15.b;</p> <p>Goal 16, targets 16.7, 16.8 and 16.b;</p> <p>Goal 17, targets 17.3, 17.6, 17.7, 17.8, 17.9, 17.10, 17.14, 17.15, 17.17, 17.17 and 17.19</p>
Convention on International Trade in Endangered Species of Wild Flora and Fauna	Monitoring trade in endangered species to ensure survival of species is not threatened	<p>Goal 12, target 12.2;</p> <p>Goal 16, targets 16.7, 16.8 and 16.b;</p> <p>Goal 14, targets 14.2 and 14.4;</p> <p>Goal 15, targets 15.7 and 15.b;</p> <p>Goal 17, targets 17.3, 17.6, 17.7, 17.8, 17.9, 17.10, 17.14, 17.15, 17.17, 17.17 and 17.19</p>
Convention on the Conservation of Migratory Species of Wild Animals	Conservation of terrestrial, aquatic and avian migratory species, their habitats and migration routes, to ensure their favourable conservation status across their migratory ranges	<p>Goal 12, target 12.8;</p> <p>Goal 16, targets 16.7, 16.8 and 16.b;</p> <p>Goal 13, target 13.b;</p> <p>Goal 14, targets 14.2, 14.4 and 14.5;</p> <p>Goal 15, targets 15.8 and 15.9;</p> <p>Goal 17, targets 17.3, 17.6, 17.7, 17.8, 17.9, 17.14, 17.15, 17.17, 17.17 and 17.19</p>



Multilateral environmental agreement	Focus	Link to Sustainable Development Goals and targets
Convention on Wetlands of International Importance especially as Waterfowl Habitat	Framework for national action and international cooperation for the conservation and use of wetlands and their resources	Goal 2 , target 2.4; Goal 6 , target 6.6; Goal 12 , target 12.2; Goal 13 , target 13.b; Goal 2 , target 2.4; Goal 6 , target 6.6; Goal 12 , target 12.2; Goal 13 , target 13.b; Goal 15 , target 15.1; Goal 16 , targets 16.7, 16.8 and 16.b; Goal 17 , targets 17.3, 17.6, 17.7, 17.8, 17.9, 17.14, 17.15, 17.17, 17.17 and 17.19
International Treaty on Plant Genetic Resources for Food and Agriculture	Conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of benefits derived from their use for sustainable agriculture and food security	Goal 2 , targets 2.3, 2.4 and 2.5; Goal 12 , target 12.2; Goal 13 , target 13.b; Goal 15 , targets 15.5, 15.6 and 15.9; Goal 16 , targets 16.7, 16.8 and 16.b; Goal 17 , targets 17.3, 17.6, 17.7, 17.8, 17.9, 17.14, 17.15, 17.17, 17.17 and 17.19
Convention concerning the Protection of the World Cultural and Natural Heritage	Protection of the world's cultural and natural heritage	Goal 11 , target 11.4; Goal 12 , target 12.8; Goal 13 , target 13.b Goal 15 , targets 15.1, 15.4, 15.5 and 15.9; Goal 16 , targets 16.7, 16.8 and 16.b; Goal 17 , targets 17.3, 17.6, 17.7, 17.8, 17.9, 17.14, 17.15, 17.17, 17.17 and 17.19
International Plant Protection Convention	Secure coordinated, effective action to prevent and control the introduction and spread of pests of plants and plant products	Goal 12 , target 12.2; Goal 13 , target 13.b; Goal 15 , targets 15.1 and 15.8; Goal 16 , targets 16.7, 16.8 and 16.b; Goal 17 , targets 17.3, 17.6, 17.7, 17.8, 17.9, 17.14, 17.15, 17.17, 17.17 and 17.19



CMS National Focal Point and its functions:

1. Article IX paragraph 4 subparagraph b requires the Secretariat, among other things, to maintain and promote liaison among the Parties. To this end, the Secretariat maintains a list of the officially designated national focal points from the governments of the contracting Parties. It is principally these national focal points with whom the regional representatives of the Standing Committee of the Conference of the Parties should liaise. Furthermore, Parties to each Agreement concluded under CMS are required to designate a national authority responsible for implementation.
2. The Focal Point acts as a liaison officer between relevant government offices and CMS maintaining a permanent fluid stream of communication. Additionally, the Focal Point acts as a facilitator and promoter of coordination between national institutions through sharing national, regional and sub-regional experiences in species conservation. The Focal Point also handles the mobilization and allocation of resources, whilst also identifying activities, which require further resource allocation.
3. The Focal Point undertakes key reporting duties to CMS in the form of the timely submission of the National Report and the drafting and/or revision of documents such as the species listing proposals and resolutions. The Focal Point is an active participant who is abreast with CMS activities and ensures that national representation to meetings such as the COP, are successfully managed. As an active agent, the Focal Point spearheads public awareness campaigns and importantly, keeps CMS updated on the legal, administrative and scientific measures nationally undertaken concerning conservation.

Action requested

The Standing Committee is invited to:

- a) Take note of the Terms of Reference for CMS National Focal and endorse the contents of this document.



Introduction

This document has been developed to clarify the general roles and responsibilities of CMS National Focal Points and give guidance as to how they might contribute more effectively to the operation of CMS and facilitate interactions between the Party they represent and CMS.

As the primary contacts in CMS Parties, the National Focal Points are of great importance for CMS as well as for the Parties themselves. The CMS National Focal Points serve as a link with CMS as well as the responsible institutions in the country through maintaining a constant flow of information.

The Focal Point should be working in one of the relevant Ministries dealing with nature conservation in their countries. A working knowledge of the operations of the Convention is desirable.

The working languages of the Convention are English, French and Spanish and therefore the Focal Point should be able to communicate at least in one of these languages.

Responsibilities of National Focal Points

The CMS National Focal Points should

- Arrange confirmation of their appointment through official communication from their Ministers. The CMS Secretariat should be provided with the full contact details of the Focal Points and alternate in their absence. Any changes of appointment or contact details should be communication as soon as possible to the Secretariat;
- Ensure the preparation, completion and timely submission of the CMS National Report to the CMS Secretariat;
- Oversee and ensure the prompt and full payment of the annual contribution to CMS, and investigate the possibility of providing voluntary contributions;
- Arrange for the appointment of the Party's Scientific Councillor and officially inform the CMS Secretariat directly of the contact details and area of expertise of their country's nominee to serve as Scientific Councillor;
- Arrange for and follow up the nomination of focal points for CMS Memoranda of Understanding (where responsibility for the MOU does not lie with the CMS Focal Point)



as well as act as focal point for those instruments in the interim period and inform the CMS Secretariat accordingly;

- Regularly exchange information with the Focal Points for Agreements and MoUs, possibly through the creation of national and regional forums with the Focal Points for the MoUs, promote synergies and strengthen liaison with them to avoid unnecessary duplication of effort;¹
- Regularly exchange information with the Focal Points for (Biodiversity) MEAs, possibly through the creation of a National Focal Point Forum, promote synergies and strengthen liaison with them to avoid unnecessary duplication of effort;
- Maintain a mutual and permanent communication flow with the Parties' institutions with an interest in CMS issues and the policy-makers of their countries on the one side and the CMS Secretariat on the other;
- Check the CMS website (www.cms.int) regularly to keep abreast of the latest developments and updates and share with the CMS Secretariat with possible input about their country's achievements and actions towards the implementation of the Convention and activities related to the conservation of endangered migratory species;
- Provide the CMS Secretariat with information concerning legal, administrative and scientific measures undertaken by the country with regard to the conservation activities undertaken in their country;
- Ensure that their country is represented at CMS official meetings such as the COP by coordinating in a timely manner the nomination of the delegation, securing and submitting credentials, and applying for funding if applicable and needed;
- Ensure that the outcome of CMS meetings, particularly of CMS COPs, is brought home and initiate the implementation of the decisions taken at national level, if appropriate;
- Reply as soon as possible to invitations (inclusion forwarding the invitations to other recipients where appropriate) concerning the COP, meetings and workshops;

¹ Chile has a National CMS Committee: the National CMS Committee, created by Decree No. 2 of January 2, 2006, to advise the Minister of Foreign Affairs, being an instance of coordination between the various State agencies associated with the Conservation of Migratory Species of Wild Animals. It is chaired by the Ministry of Foreign Affairs. It has a Technical Secretariat, in charge of Agriculture and Livestock Service (SAG). It comprises also the following services: National Environment Commission, Undersecretary of the Navy, Undersecretary of Fisheries, Directorate General of Maritime Territory and Merchant Marine, National Forest Service, General Directorate of Water, National Marine Fisheries Service, Chilean Antarctic Institute, National Museum of Natural History and the National Commission for Scientific and Technical Research.



- Identify incentive measures for the national stakeholders to actively participate in the conservation of migratory species in the country;
- Hold consultations with the responsible institutions in advance of meetings to discuss the agenda and documents, and prepare the country's input into the meeting (policy stance, implementation reports, results of science research, difficulties encountered etc). Follow-up on requests made by the Secretariat e.g. promoting revision of meeting reports; provision of inputs on documents, completion of questionnaires on specific issues related to the Convention etc;
- Promote the drafting and/or revision of relevant documents e.g. species listing proposals, Resolutions and Recommendations;
- Promote national coordination among different institutions through the sharing of national, regional and sub-regional experiences in species conservation and handling the mobilization and allocation of resources;
- Spearhead public awareness campaigns (through the media for best practices or publicize violations and enforcement actions) to promote compliance and generating information for assessing the status of compliance with the CMS and defining ways and means through consultations for promotion and enhancement of compliance;
- Spearhead the development of a national CMS implementation plan for effective implementation and enforcement of CMS as well as its governing bodies' decisions and resolutions;
- Identify activities for which additional resources are required and help mobilise such resources;
- Actively seek the input or information from other national focal points particularly those from the same region, in the case where the CMS National Focal Point is a regional representative on a subsidiary body or working group (see Terms of Reference for Standing Committee members);
- Where the Party is not on the CMS Standing Committee or any Working Group, liaise with the relevant regional representative and provide timely responses to any requests for input or information.



Draft resolution on enhancing the Convention's implementation, visibility and synergies with other multilateral environmental agreements and other international institutions

1. RECALLING that Resolution XI.1, on *Institutional hosting of the Ramsar Secretariat*, in paragraphs 17 and 18, instructs the Standing Committee and Contracting Parties to develop strategies that explore the accommodation of UN languages into the Convention, the elevation of the Convention's visibility and stature, including *inter alia* through enhancing high-level political engagement in its work at national, regional, and global levels, the enhancement of synergies with multilateral environmental agreements (MEAs) and other international entities including through regional initiatives, and the increased involvement in the initiatives of the United Nations Environment Programme (UNEP);
2. FURTHER RECALLING that Resolution XII.3, on *Enhancing the languages of the Convention and its visibility and stature, and increasing synergies with other multilateral environmental agreements and other international institutions*, instructs the Secretariat to report to the Standing Committee annually on progress in implementing Resolution XI.6 on *Partnership and synergies with Multilateral Environmental Agreements and other institutions*;
3. NOTING that Resolution XII.3 requests that the Secretary General report at the 13th meeting of the Conference of the Contracting Parties on the opportunities for the Convention to further strengthen its contribution to the Post-2015 Sustainable Development Agenda and Sustainable Development Goals (SDGs), as they relate to wetlands;
4. FURTHER NOTING that Resolution XII.3 instructs the Secretariat to continue working to strengthen collaboration with the International Union for Conservation of Nature (IUCN) World Heritage Outlook, the United Nations Environment Programme (UNEP), UNEP-GRID, the United Nations Development Programme (UNDP), the United Nations Educational, Scientific and Cultural Organization (UNESCO), regional economic commissions of the United Nations, the World Bank, the World Health Organization (WHO), the World Meteorological Organization (WMO), the UN Food and Agriculture Organization (FAO), the Global Environment Facility (GEF), the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and others, and report on progress to the Standing Committee and the Contracting Parties on a regular basis;



5. RECALLING that the Secretariat is also requested by Resolution XII.3 to continue its work with the Biodiversity Liaison Group (BLG) to enhance coherence and cooperation and to continue efforts to improve efficiency and reduce unnecessary overlap and duplication at all relevant levels among the biodiversity-related Conventions;
6. NOTING that Resolution XII.7, on *Resource Mobilization and Partnership Framework of the Ramsar Convention*, requests that the Secretariat strengthen partnerships with other MEAs such as, *inter alia*, the United Nations Convention to Combat Desertification and the Convention on Biological Diversity (CBD), in order to enhance synergies and sharing of resources, avoid duplication and enhance implementation, respecting the mandate of each Convention;
7. RECALLING that Resolution XII.3 invites all Contracting Parties that are considering hosting a meeting of the Conference of the Contracting Parties (COP) to consider including a high-level ministerial segment during the meeting addressing clearly defined topics in support of the agenda of the COP;
8. NOTING the interest of all Contracting Parties in enhancing the visibility and stature of the Convention and increasing synergies with other MEAs and with UNEP;
9. NOTING the project undertaken by UNEP on “Improving the effectiveness of and cooperation among biodiversity-related conventions and exploring opportunities for further synergies” and its results;
10. RECOGNIZING, in the context of the ongoing work on synergies, the importance of the linkages between the Ramsar Strategic Plan and the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets and any follow-up, the 2030 Agenda for Sustainable Development¹ and the Sustainable Development Goals, and related reporting and indicators;
11. RECALLING Decisions XII.30 and XIII.21 of the CBD on the financial mechanism and the United Nations General Assembly document *Transforming our world: the 2030 Agenda for Sustainable Development*, which stresses the importance of enhancing programmatic synergies among relevant biodiversity-related conventions and recognizes the significant contributions to sustainable development made by the MEAs including the Ramsar Convention;
12. RECALLING the outcomes of the United Nations Conference on Sustainable Development (Rio+20) contained in *The future we want*²;

1 General Assembly resolution 70/1 of 25 September 2015 entitled “Transforming our world: the 2030 Agenda for Sustainable Development”, annex.

2 http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E



13. CONVINCED of the significant potential of increasing cooperation, coordination and synergies among the biodiversity-related conventions to enhance coherent national-level implementation of each of the conventions;
14. NOTING that the 2030 Agenda for Sustainable Development includes SDG6, “Ensure availability and sustainable management of water and sanitation for all”, and Target 6.6, “By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes”;
15. ALSO NOTING SDG14, “Conserve and sustainably use the oceans, seas and marine resources for sustainable development”, and Target 14.2, “By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans”;
16. ADDITIONALLY NOTING SDG15, “Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”, and Target 15.1, “By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and dry lands, inline with obligations under international agreements”;
17. FURTHER NOTING that other SDGs that are relevant to the Convention are: SDG1, “End poverty in all its forms everywhere”; SDG2, “End hunger, achieve food security and improved nutrition and promote sustainable agriculture”; SDG5, “Achieve gender equality and empower all women and girls”; SDG11, “Make cities and human settlements inclusive, safe, resilient and sustainable”; and SDG13, “Take urgent action to combat climate change and its impacts”;
18. NOTING the decision of the Inter-Agency Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) at its 7th meeting to reclassify Indicator 6.6.1, “Change in the extent of water-related ecosystems over time” and to approve two reporting lines to the global SDG database hosted by the UN Statistics Division, such that UNEP will be responsible for the internationally comparable methodology with national data, regional and global aggregations for Indicator 6.6.1, and the Convention will contribute data from the National Reports based on Ramsar definitions and requirements;
19. FURTHER NOTING that the Convention and UNEP, as co-custodians for SDG Indicator 6.6.1, will be responsible for their respective reporting lines and will jointly contribute to the SDG target 6.6 storyline;
20. EXPRESSING APPRECIATION for the cooperation between IUCN and the Convention



Secretariat through the IUCN/Ramsar Liaison Group to support the operations of the Secretariat;

21. APPRECIATING the results achieved by the Facilitation Working Group of the Standing Committee to facilitate discussions between the Secretariat and IUCN, in order to seek ways of improving the current operations of the Secretariat;
22. RECOGNIZING that inconsistencies and contradictions between resolutions and decisions taken over the years can result in confusion and a lack of clarity that creates inefficiencies in the implementation of the Convention, and that implementation of the Convention can be improved by retiring resolutions and decisions and parts thereof that are outdated or contradictory;
23. RECALLING Resolution XII.4, on *The responsibilities, roles and composition of the Standing Committee and regional categorization of countries under the Ramsar Convention*, which seeks to strengthen transparency within the work of the Convention to facilitate the evolution of decisions, guidance and implementation of the Convention in cooperation with Contracting Parties, International Organization Partners, and stakeholders;]
24. NOTING Parties' interest in enhancing their efforts to identify and address the challenges to wetlands globally as a means to increase the relevance, timeliness, and impact of the Convention and of Contracting Parties' resolutions related to the wise use of wetlands;] and
25. NOTING the value in reviewing the Rules of Procedure to identify any inconsistencies or other elements that may negatively impact the work of the Convention or that might usefully be amended to optimize resources and/or increase efficiency;]

The Conference of the Contracting Parties

Concerning visibility and stature, and increasing synergies

26. INVITES the Secretariat, Contracting Parties, International Organization Partners (IOPs) and others to work to raise the visibility of the Convention at the national, sub national, regional and international levels as appropriate, including some focus on the 50th anniversary of the Convention, which will be celebrated in 2021;
27. FURTHER INVITES Contracting Parties to establish or strengthen, at the national level, mechanisms to enhance effective coordination between relevant national and subnational authorities, and to support the mainstreaming of wetland ecosystem functions and the ecosystem services they provide to people and nature in national development plans, other sectors' strategies, plans and regulations, and especially in the context of the 2030 Sustainable Development Agenda and the SDGs;



28. ENCOURAGES all Ramsar National Focal Points to continue to increase their efforts to coordinate with their national counterparts as well as with institutions and agencies working to address the 2030 Sustainable Development Agenda and SDGs;
29. FURTHER ENCOURAGES National Focal Points to strengthen coordination with all wetland practitioners including Ramsar Site managers, to inform them of Ramsar activities and be informed by them about processes and issues of common interest;
30. CALLS UPON Contracting Parties to continue to develop and activate networking mechanisms, including Ramsar National Wetlands Committees or similar bodies, to ensure collaboration with national ministries, departments and agencies;
31. INVITES Contracting Parties to identify opportunities to enhance synergies at the local and regional levels, including with respect to sites with multiple international designations (such as Wetlands of International Importance that are also Biosphere Reserves or World Heritage sites);
32. FURTHER INVITES Contracting Parties to work with global and regional bodies, including the United Nations Environment Programme (UNEP), the UN Development Programme (UNDP), the World Health Organization (WHO), the UN Food and Agriculture Organization (FAO), the UN Economic Commission for Europe (UNECE) and other regional economic commissions of the UN, the International Tropical Timber Organization (ITTO), and the Global Environment Facility (GEF), to enhance the wise use of wetlands;
33. ALSO INVITES Contracting Parties to continue to take into account the results of the project “Improving the effectiveness of and cooperation among biodiversity-related conventions and exploring opportunities for further synergies” through, *inter alia*, the sourcebook, undertaken by UNEP; and ENCOURAGES the Secretariat and Contracting Parties to implement its recommendations to promote synergies within the cluster of biodiversity-related multilateral environmental agreements (MEAs);
34. REQUESTS that Contracting Parties continue to implement the *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19), including by establishing cooperative mechanisms for the management of shared wetlands and hydrological basins;
35. INSTRUCTS the Secretariat to report regularly to the Standing Committee on progress in implementing the present Resolution and Resolution XI.6 on *Partnerships and synergies with Multilateral Environmental Agreements and other institutions*;
36. WELCOMES the continued collaboration between the Secretariat and the secretariats of other biodiversity-related conventions through the Biodiversity Liaison Group (BLG) and



through the implementation of joint work plans and activities of common interest; and REQUESTS the Secretary General to include in future reports on cooperation with other conventions, international organizations and partnerships information on results and achievements of existing cooperation activities and new activities with possible partners;

37. WELCOMES Decision XIII.24, on *Cooperation with other conventions and international organizations*, adopted by the Conference of the Contracting Parties to the Convention on Biological Diversity (CBD) and REQUESTS that the Secretariat provide inputs to the synergy process as appropriate and in particular on matters that are relevant to the Ramsar Convention;
38. FURTHER INSTRUCTS the Secretariat to continue working to strengthen collaboration with UN agencies, in particular UNEP, UNDP, FAO, the World Bank, WHO, the World Meteorological Organization (WMO), the UN Educational, Scientific and Cultural Organization (UNESCO), UNECE and other regional economic commissions of the UN, GEF, MEAs such as the United Nations Framework Convention on Climate Change, the United Nations Convention to Combat Desertification, the CBD, the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and others, and to report progress to the Standing Committee on a regular basis;
39. ENCOURAGES Contracting Parties to indicate in their nationally determined contributions (NDCs) options to create an enabling environment to safeguard and restore wetlands, and to specify the policies and actions that will support this;
40. WELCOMES the Secretariat's progress in the implementation of the memorandum of understanding with UNEP to enhance collaboration on areas of common interest; and REQUESTS that the Secretariat report to the Standing Committee on the progress of the activities concerned;
41. REQUESTS the Secretariat to foster and enhance crosscutting subject matter expertise within the Secretariat team as a means to maximize use of existing resources and avoid duplication of efforts, foster a whole-of-Secretariat approach to providing equitable and consistent support to Parties' efforts to implement the Convention, and advance synergies and contributions across the MEAs and the 2030 Agenda for Sustainable Development;

Concerning Agenda 2030 and the Sustainable Development Goals

42. INSTRUCTS the Secretariat to continue working actively with the Inter-Agency Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs), as well as with other relevant United Nations agencies, on water-related indicators, and in particular SDG Indicator 6.6.1 on wetland extent;



43. FURTHER REQUESTS the Secretariat to continue working with Contracting Parties on the completion of national wetland inventories and wetland extent to report on SDG Indicator 6.6.1;
44. INSTRUCTS the Secretariat to participate as appropriate in relevant international efforts to address the 2030 Sustainable Development Agenda and Sustainable Development Goals, including the High Level Political Forum on Sustainable Development and the discussion of Sustainable Development Goals 14 and 15 and Targets 14.2 and 15.1 in international fora;
45. FURTHER INSTRUCTS the Secretariat to support Contracting Parties as appropriate in raising the relevance of and mainstreaming wetlands and the Convention in the 2030 Sustainable Development Agenda, including *inter alia* through collaboration with intergovernmental organizations, IOPs and other partners in the public and private sectors for the development of guidance and tools, capacity building and identification of opportunities to access resources;
46. ENCOURAGES Contracting Parties to strengthen their mechanisms to enhance effective coordination among national and sub national statistical authorities responsible for reporting on the SDGs and in particular those related to wetlands;
47. FURTHER ENCOURAGES Contracting Parties to elevate the importance of wetlands and the Convention to address the 2030 Sustainable Development Agenda and SDGs and to strengthen mainstreaming efforts at national and sub national levels;
48. INVITES the Parties to the MEAs to consider further measures to promote policy coherence at all relevant levels, improve efficiency, reduce unnecessary overlap and duplication, and enhance cooperation, coordination and synergies among MEAs and other partners at the national level to enhance coherent national implementation of the Convention;

Concerning the Global Environment Facility Trust Fund

49. REQUESTS the Secretariat to present, at the 58th meeting of the Standing Committee, further to paragraphs 2, 3 and 4 of CBD Decision XII.30, elements of advice for the GEF concerning the funding to support the objectives and priorities of the Convention, consistent with the mandates of the GEF, and to repeat the exercise described therein for the development of strategic guidance for the eighth replenishment of the GEF Trust Fund in time for consideration by the Conference of the Parties to the CBD at its 15th meeting, consistent with CBD Decision XIII/21;



Concerning the relationship with the International Union for Conservation of Nature and the work of the Secretariat

50. REQUESTS the Secretariat to continue the cooperation efforts with the International Union for Conservation of Nature (IUCN) through the IUCN/Ramsar Liaison Group to support the operations of the Secretariat under the Secretariat and the IUCN Service Agreement;

Concerning the enhancement of the implementation of the Convention

51. REQUESTS that the Standing Committee, at its first full meeting following each meeting of the Conference of the Contracting Parties, identify, with the support of the Secretariat, a limited set of urgent challenges to the wise use of wetlands, in the framework of the Ramsar Strategic Plan and the broader environmental agenda, to receive enhanced attention during the coming triennium;]

52. FURTHER REQUESTS that the Standing Committee consider these urgent challenges during its meetings throughout the triennium, inviting external expert speakers to participate in and contribute to Contracting Parties' discussions as appropriate and subject to available resources, with a view to identifying potential solutions to these challenges and reflecting them in draft resolutions for consideration at the next meeting of the Conference of the Contracting Parties;]

53. REQUESTS the Secretariat to:

- a. review all previous resolutions and decisions, identifying those or parts of those, if any, that may no longer be valid or applicable, that contradict each other, or are otherwise inconsistent with current Ramsar practices, and at the 57th meeting of the Standing Committee (SC57) report its findings, including information on how it reached these conclusions (e.g. *inter alia*, that the work has been completed, superseded, is contradictory, or is incorporated elsewhere); and
- b. based on its findings and Parties' feedback to its SC57 report, develop recommendations for Parties at the 58th meeting of the Standing Committee (SC58) to consider a process for: retiring outdated resolutions and decisions; establishing a practice of retiring outdated or contradictory resolutions and decisions automatically when they are superseded by new ones; and preparing a consolidated list of resolutions and decisions, to be updated after each meeting of the Conference of the Contracting Parties and on an as-needed basis following meetings of the Standing Committee;



54. REQUESTS that the Standing Committee, at SC57, review the Secretariat's report on the validity of resolutions and decisions and provide feedback, and consider the Secretariat's recommendations on this subject at SC58, with a view to including, in a relevant resolution of the 14th meeting of the Conference of the Contracting Parties (COP14), the retirement of outdated resolutions and decisions and the establishment of a practice for the Convention to retire outdated resolutions and decisions automatically when they are superseded by new ones;]
55. REQUESTS the Secretariat to:
- a. conduct a review of the Rules of Procedure, identifying text, if any, that may no longer be valid or applicable, is contradictory, is otherwise inconsistent with current Ramsar practices, and the Rules' applicability to subsidiary bodies including the Standing Committee, working groups, and Friends of the Chair groups and, at SC57, report its findings, including information on how it reached these conclusions; and
 - b. develop, as appropriate, based on its findings and Contracting Parties' feedback to its SC57 report, recommendations for Parties at SC58, to consider revisions that might be made to the Rules of Procedure, in preparation for COP14;
56. REQUESTS the Standing Committee, at SC57, to review the Secretariat's report on the Rules of Procedure and provide feedback, and to consider the Secretariat's recommendations on this subject at SC58 and, as appropriate, consider revisions that might be made to the Rules of Procedure in preparation for COP14;]
57. ENCOURAGES Contracting Parties, as appropriate and subject to the availability of resources, to consider using written submissions from their national Administrative Authorities as a means to provide opportunities for fostering increased participation and representation of views of Contracting Parties and stakeholders in the work of the Convention;
58. REQUESTS the Secretariat to continue its efforts to deploy appropriate cost-effective communication and other technologies as a means to foster the participation and representation of the Contracting Parties and the Secretariat, increase efficiencies, and reduce costs; and
59. FURTHER REQUESTS the Secretariat to make Contracting Parties aware of the opportunities provided by these technologies to foster Convention-related capacity building and to support the efforts of the Convention bodies to enhance implementation of the Convention.



Ramsar website information Ashtamudi: Neither indicated on the map nor described on the website

Sasthamkotta Lake. 19/08/02. Kerala. 373 ha. 09°02'N 076°37'E. The largest freshwater lake in Kerala state in the southwest of the country, spring-fed and the source of drinking water for half a million people in the Kollam district. Some 27 freshwater fish species are present. The water contains no common salts or other minerals and supports no water plants; a larva called "cavaborus" abounds and eliminates bacteria in the water, thus contributing to its exceptional purity. The ancient Sastha temple is an important pilgrimage centre. WWF-India has been of great assistance in preparing the site's designation. Ramsar site no. 1212. Most recent RIS information: 2002.

Vembanad-Kol Wetland. 19/08/02. Kerala. 151,250 ha. 09°50'N 076°45'E. The largest brackish, humid tropical wetland ecosystem on the southwest coast of India, fed by 10 rivers and typical of large estuarine systems on the western coast, renowned for its clams and supporting the third largest waterfowl population in India during the winter months. Over 90 species of resident birds and 50 species of migratory birds are found in the Kol area. Flood protection for thickly-populated coastal areas of three districts of Kerala is considered a major benefit, groundwater recharge helps to supply well water for the region, and the value of the system for the local transport of people and trade is considerable. Ramsar site no. 1214. Most recent RIS information: 2002.

Point Calimere Wildlife and Bird Sanctuary. 19/08/02. Tamil Nadu. 38,500 ha. 10°19'N 079°38'E. Wildlife Sanctuary. A coastal area consisting of shallow waters, shores, and long sand bars, intertidal flats and intertidal forests, chiefly mangrove, and seasonal, often-saline lagoons, as well as human-made salt exploitation sites. Some 257 species of birds have been recorded, 119 of them waterbirds, including the vulnerable species Spoonbill Sandpiper (*Euryhorhynchus pygmaeus*) and Grey Pelican (*Pelecanus philippensis*) and some 30,000 Greater and Lesser Flamingos. The site serves as the breeding ground or nursery for many commercially important



species of fish, as well as for prawns and crabs. Some 35,000 fishermen and agriculturalists support their families around the borders of the sanctuary. Illegal collection of firewood and forest produce such as fruits (gathered by lopping off tree branches), the spread of *Prosopis chilensis* (Chilean mesquite), increasingly brackish groundwater caused by expansion of the historical salt works, and decreasing inflow of freshwater are all seen as potential causes for concern. Visitors come to the site both for recreation and for pilgrimage, as it is associated with Lord Rama. Ramsar site no. 1210. Most recent RIS information: 2002.

Kolleru Lake. 19/08/02. Andhra Pradesh. 90,100 ha. 16°37'N 081°12'E. Wildlife Sanctuary. A natural eutrophic lake, situated between the two major river basins of the Godavari and the Krishna, fed by two seasonal rivers and a number of drains and channels, which functions as a natural flood balancing reservoir between the deltas of the two rivers. It provides habitat for a number of resident and migratory birds, including declining numbers of the vulnerable Grey Pelican (*Pelecanus philippensis*), and sustains both culture and capture fisheries, agriculture and related occupations of the people in the area. Damage and losses due to flooding in monsoon seasons and partial drying out during summers, the results of inadequate management planning and action, are seen as areas for improvement. WWF-India has been of great assistance in preparing the site's designation. Ramsar site no. 1209. Most recent RIS information: 2002.

Chilika Lake. 01/10/81; Orissa; 116,500 ha; 19°42'N 085°21'E. Added to the Montreux Record, 16 June 1993; removed from the Record, 11 November 2002. Brackish lake separated from the Bay of Bengal by a long sandy ridge and subject to sea water exchange, resulting in extreme seasonal fluctuations in salinity in different sections of the lake. Saline areas support aquatic algae. The site is an important area for breeding, wintering and staging for 33 species of waterbirds. It also supports 118 species of fish, including commercially important species. Significant numbers of people are dependent upon the lake's resources. Placed on the Montreux Record in 1993 due to problems caused by siltation and sedimentation which was choking the mouth of the lake; removed from the Record in 2002 following rehabilitation efforts for which the Chilika Development Authority received the Ramsar Wetland Conservation Award for 2002. Subject of a Ramsar Advisory Mission, 2001. Ramsar site no. 229.

Bhitarkanika Mangroves. 19/08/02. Orissa. 65,000 ha. 20°39'N 086°54'E. Wildlife Sanctuary.



One of the finest remaining patches of mangrove forests along the Indian coast - 25 years of continued conservation measures have made the site one of the best known wildlife sanctuaries. The site's Gahirmatha beach is said to host the largest known Olive Ridley sea turtle nesting beach in the world, with half a million nesting annually, and the site has the highest density of saltwater crocodile in the country, with nearly 700 *Crocodylus porosus*. It is a major breeding and wintering place for many resident and migratory waterbirds and is the east coast's major nursery for brackish water and estuarine fish fauna. Like many mangrove areas, the dense coastal forests provide vital protection for millions of people from devastating cyclones and tidal surges - of India's 58 recorded species of mangroves, 55 species are found in Bhitarkanika, a wider mangrove diversity than in the Sundarbans! Traditionally, sustainable harvesting of food, medicines, tannins, fuel wood, and construction materials, and particularly honey and fish, has been the rule, but population pressures and encroachment may threaten that equilibrium. Ramsar site no. 1205. Most recent RIS information: 2002.

East Calcutta Wetlands. 19/08/02. West Bengal. 12,500 ha. 22°27'N 088°27'E. World-renowned as a model of a multiple use wetland, the site's resource recovery systems, developed by local people through the ages, have saved the city of Calcutta from the costs of constructing and maintaining waste water treatment plants. The wetland forms an urban facility for treating the city's waste water and utilizing the treated water for pisciculture and agriculture, through the recovery of nutrients in an efficient manner - the water flows through fish ponds covering about 4,000 ha, and the ponds act as solar reactors and complete most of their bio-chemical reactions with the help of solar energy. Thus the system is described as "one of the rare examples of environmental protection and development management where a complex ecological process has been adopted by the local farmers for mastering the resource recovery activities" (RIS). The wetland provides about 150 tons of fresh vegetables daily, as well as some 10,500 tons of table fish per year, the latter providing livelihoods for about 50,000 people directly and as many again indirectly. The fish ponds are mostly operated by worker cooperatives, in some cases in legal associations and in others in cooperative groups whose tenurial rights are under legal challenge. A potential threat is seen in recent unauthorized use of the waste water outfall channels by industries which add metals to the canal sludge and threaten the edible quality of the fish and vegetables. Ramsar site no. 1208. Most recent RIS information: 2002.



Rudrasagar Lake. 08/11/05; Tripura; 240 ha; 23°29'N 090°01'E. A lowland sedimentation reservoir in the northeast hills, fed by three perennial streams discharging to the River Gomti. The lake is abundant in commercially important freshwater fishes like *Botia* spp, *Notopterus Chitala*, *Mystus* spp., *Ompok pabda*, *Labeo bata*, and freshwater scampi, with annual production of 26 metric-tons, and an ideal habitat for IUCN Redlisted Three-striped Roof Turtle *Kachuga dhongka*. Owing to high rainfall (2500mm) and downstream topography, the wetland is regularly flooded with 4-5 times annual peak, assisting in groundwater recharge. Aquatic weeds are composed of rare marginal-floating-emergent-submerged weeds. Lands are owned by the state with perennial water areas leased out to the subsistent fishermen's cooperative, and surrounding seasonal waterbodies are cultivated for paddy. Main threats are increasing silt loads due to deforestation, expansion of agricultural land and intensive farming, and land conversion for population pressure. Vijaya Dashami, one of the most important Hindu festivals with various sports events, attracts at least 50,000 tourists and devotees every year. A management plan is underway by the MoEF-India. Ramsar site no. 1572. Most recent RIS information: 2005.

Loktak Lake. 23/03/90; Manipur; 26,600 ha; 24°26'N 093°49'E. Added to the Montreux Record, 16 June 1993. A large, but shrinking freshwater lake and associated swamplands supplied by several streams. Thick, floating mats of weeds covered with soil (phumids') are a characteristic feature. The lake is used extensively by local people as a source of water for irrigation and domestic use and is an important wintering and staging area for waterbirds, particularly ducks. It also plays an important role in flood control. Included on the Montreux Record in 1993 as a result of ecological problems such as deforestation in the catchment area, infestation of water hyacinth, and pollution. The construction of a dam for hydroelectric power generation and irrigation purposes has caused the local extinction of several native fish species. Ramsar site no. 463. Most recent RIS information: 1990.

Deepor Beel. 19/08/02. Assam. 4,000 ha. 26°08'N 091°39'E. Sanctuary. A permanent freshwater lake in a former channel of the Brahmaputra river, of great biological importance and also essential as the only major storm water storage basin for the city of Guwahati. The beel is a staging site on migratory flyways and some of the largest concentrations of aquatic birds in Assam can be seen, especially in winter. Some globally threatened birds are



supported, including Spotbilled Pelican (*Pelicanus philippensis*), Lesser and Greater Adjutant Stork (*Leptoptilos javanicus* and *dubius*), and Baer's Pochard (*Aythya baeri*). The 50 fish species present provide livelihoods for a number of surrounding villages, and nymphaea nuts and flowers, as well as ornamental fish, medicinal plants, and seeds of the Giant water lily *Euryale ferox* provide major revenue sources in local markets; orchids of commercial value are found in the neighboring forest. Potential threats include over-fishing and hunting pressure upon waterbirds, pollution from pesticides and fertilizers, and infestation by water hyacinth *Eichhornia crassipes*. A proposal to create a sewage canal from the city directly to the beel is considered to be disastrous in its potential effects. Ramsar site no. 1207. Most recent RIS information: 2002.

Nalsarovar Bird Sanctuary. 24/09/12; Gujarat; 12,000 ha; 22°46'33"N 072°02'21"E. Wildlife Sanctuary. A natural freshwater lake (a relict sea) that is the largest natural wetland in the Thar Desert Biogeographic Province and represents a dynamic environment with salinity and depth varying depending on rainfall. The area is home to 210 species of birds, with an average 174,128 individuals recorded there during the winter and 50,000 in the summer. It is an important stopover site within the Central Asia Flyway, with globally threatened species such as the critically endangered Sociable Lapwing (*Vanellus gregarius*) and the vulnerable Marbled Teal (*Marmaronetta angustirostris*) stopping over at the site during migration, while the vulnerable Sarus Crane (*Grus antigone*) takes refuge there during summer when other water bodies are dry. The wetland is also a lifeline for a satellite population of the endangered Indian Wild Ass (*Equus hemionus khur*) which uses this area in the dry season. Local communities heavily rely on the lake as it provides them with a source of drinking water and water for irrigation, as well as an important source of income from fishing for Catla fish (*Catla Catla*) and Rohu (*Labeo rohita*). An average of 75,000 tourists visit the wetland annually. Ramsar Site no. 2078. Most recent RIS information: 2012.

Bhoj Wetland. 19/08/02. Madhya Pradesh. 3,201 ha. 23°14'N 077°20'E. Two contiguous human-made reservoirs - the "Upper Lake" was created in the 11th century by construction of an earthen dam across the Kolans River, and the lower was constructed nearly 200 years ago, largely from leakage from the Upper, and is surrounded by the city of Bhopal. The lakes are very rich in biodiversity, particularly for macrophytes, phytoplankton, zooplankton, both



natural and cultured fish species, both resident and migratory birds, insects, and reptiles and amphibians. Since implementation of a management action plan was begun in 1995 with financial support from the government of Japan, a number of bird species have been sighted which had rarely or never before been seen in the region. WWF-India has been of great assistance in preparing the site's designation. Ramsar site no. 1206. Most recent RIS information: 2002.

Sambhar Lake. 23/03/90; Rajasthan; 24,000 ha; 27°00'N 075°00'E. A large saline lake fed by four streams set in a shallow wetland and subject to seasonal fluctuations. It is surrounded by sand flats and dry thorn scrub and fed by seasonal rivers and streams. The site is important for a variety of wintering waterbirds, including large numbers of flamingos. Human activities consist of salt production and livestock grazing. Ramsar site no. 464. Most recent RIS information: 1990.

Keoladeo National Park. 01/10/81; Rajasthan; 2,873 ha; 27°13'N 077°32'E. Added to the Montreux Record, 4 July 1990. World Heritage Site; National Park; Bird Sanctuary. A complex of ten artificial, seasonal lagoons, varying in size, situated in a densely populated region. Vegetation is a mosaic of scrub and open grassland that provides habitat for breeding, wintering and staging migratory birds. Also supported are five species of ungulates, four species of cats, and two species of primates, as well as diverse plants, fish and reptiles. The canal provides water for agriculture and domestic consumption. Cattle and water buffalo graze on the site. A field research station exists. Placed on the Montreux Record in 1990 due to "water shortage and an unbalanced grazing regime". Additionally, the invasive growth of the grass *Paspalum distichum* has changed the ecological character of large areas of the site, reducing its suitability for certain waterbird species, notably the Siberian crane. Subject of Ramsar Advisory Missions in 1988 and 1990. Ramsar site no. 230.

Upper Ganga River (Brijghat to Narora Stretch). 08/11/05; Uttar Pradesh; 26,590 ha; 28°33'N 078°12'E. A shallow river stretch of the great Ganges with intermittent small stretches of deep-water pools and reservoirs upstream from barrages. The river provides habitat for IUCN Red listed Ganges River Dolphin, Gharial, Crocodile, 6 species of turtles, otters, 82 species of fish and more than hundred species of birds. Major plant species, some of which have high medicinal values, include *Dalbergia sissoo*, *Saraca indica*, *Eucalyptus globulus*,



Ficus bengalensis, *Dendrocalamus strictus*, *Tectona grandis*, *Azadirachta indica* and aquatic *Eichhorina*. This river stretch has high Hindu religious importance for thousands of pilgrims and is used for cremation and holy baths for spiritual purification. Major threats are sewage discharge, agricultural runoff, and intensive fishing. Conservation activities carried out are plantation to prevent bank erosion, training on organic farming, and lobbying to ban commercial fishing. Ramsar site no. 1574. Most recent RIS information: 2005.

Ropar. 22/01/02; Punjab; 1,365 ha; 31°01'N 076°30'E. National Wetland. A human-made wetland of lake and river formed by the 1952 construction of a barrage for diversion of water from the Sutlej River for drinking and irrigation supplies. The site is an important breeding place for the nationally protected Smooth Indian Otter, Hog Deer, Sambar, and several reptiles, and the endangered Indian Pangolin (*Manis crassicaudata*) is thought to be present. Some 35 species of fish play an important role in the food chain, and about 150 species of local and migratory birds are supported. Local fisheries are economically significant, and wheat, rice, sugar cane, and sorghum are cultivated in the surrounding area. Deforested local hills leading to siltation, and increasing industrialization causing an inflow of pollutants, are potential threats, and invasive weeds are a further cause for concern. Nature lovers, birdwatchers, swimmers and boaters visit the site in considerable numbers. Ramsar site no. 1161. Most recent RIS information: 2001.

Harike Lake. 23/03/90; Punjab; 4,100 ha; 31°13'N 075°12'E. Bird Sanctuary. A shallow water reservoir with thirteen islands, at the confluence of two rivers. Dense floating vegetation covers 70% of the lake. An important site for breeding, wintering and staging birds, supporting over 200,000 Anatidae (ducks, geese, swans, etc.) during migration. The entire lake is leased on an annual basis to commercial fishery organizations. Ramsar site no. 462. Most recent RIS information: 1990.

Kanjli. 22/01/02;. Punjab; 183 ha; 31°25'N 075°22'E. A permanent stream, the Kali Bein, converted by construction of a small barrage in 1870 into a water storage area for irrigation purposes. The site fulfils Criteria 3 because of its importance in supporting a considerable diversity of aquatic, mesophytic, and terrestrial flora and fauna in the biogeographical region, and acts also as a key regulator of groundwater discharge and recharge with the seasons. By this means and by direct abstraction of water for irrigation by the local population, the site



plays a crucial role in the agriculture which predominates on the surrounding fertile plain, with fewer pressures upon water supplies than elsewhere in the Punjab. The invasive water hyacinth is present and must be removed from time to time; increasing pollution levels, deforestation in the catchment area, and excessive grazing are seen as potential threats. The stream is considered to be the most significant in the state from the religious point of view, as it is associated with the first guru of the Sikhs, Shri Guru Nanak Dev Ji. The stream itself and surrounding marsh is under provincial ownership and surrounding areas privately owned. The site is a center for environmental tourism and picnicking. Ramsar site no. 1160. Most recent RIS information: 2001.

Renuka Wetland. 08/11/05; Himachal Pradesh; 20 ha; 31°37'N 077°27'E. Wildlife Sanctuary, Reserve Forest. A natural wetland with freshwater springs and inland subterranean karst formations, fed by a small stream flowing from the lower Himalayan out to the Giri river. The lake is home to at least 443 species of fauna and 19 species of ichthyofauna representative of lacustrine ecosystems like Puntius, Labeo, Rasbora, Channa. Prominent vegetation ranges from dry deciduous like Shorea Robusta, Terminalia tomentosa, Dalbergia sissoo to hydrophytes. There are 103 species of birds of which 66 are residents, e.g. Crimson-breasted barbet, Mayna, Bulbul, Pheasants, Egrets, Herons, Mallards and Lapwing. Among ungulates Sambhar, Barking deer and Ghorals are also abundant in the area. The lake has high religious significance and is named after the mother of Hindu sage Parshuram, and is thus visited by thousands of pilgrims and tourists. Conservation measures so far include community awareness, and prevention of silt influx from eroded slopes and 50 ha. of massive plantation in the catchment. The site is managed by the Shimla Forest Department, Himachal Pradesh. Ramsar site no. 1571. Most recent RIS information: 2005.

Pong Dam Lake. 19/08/02. Himachal Pradesh. 15,662 ha. 32°01'N 076°05'E. Wildlife Sanctuary. A water storage reservoir created in 1975 on the Beas River in the low foothills of the Himalaya on the northern edge of the Indo-Gangetic plain. The RIS notes that "at a time when wetlands in northern India are getting reduced due to extensive drainage and reclamation, the avian habitats formed by the creation of the Pong Dam assume a great significance" - given the site's location on the trans-Himalayan flyway, more than 220 bird species have been identified, with 54 species of waterfowl. Hydrological values include monsoon-season flood



prevention, both in the surroundings and downstream due to water regulation, groundwater recharge, silt trapping and prevention of soil erosion; electricity is generated for this and neighboring states, and irrigation water is being channeled to fertile areas of the Punjab and Rajasthan deserts. Low-yield subsistence fishing existed prior to impoundment, but since, a lucrative fishery has grown up, with 27 fish species and a yield increasing markedly each year - some 1800 fishermen now have direct employment and 1000 families benefit indirectly. A nature conservation education centre is found on the island of Ransar or Ramsar (sic). Recent management strategies have shifted away from law enforcement and use restrictions towards more participatory approaches and community awareness, and the site is well suited to “community-based ecotourism”. Ramsar site no. 1211. Most recent RIS information: 2002.

Chandertal Wetland. 08/11/05; Himachal Pradesh, 49 ha; 32°29'N 077°36'E. A high altitude lake on the upper Chandra valley flowing to the Chandra river of the Western Himalayas (4,337m asl.) near the Kunzam pass joining the Himalayan and Pir Panchal ranges. It supports CITES and IUCN Redlisted Snow Leopard and is a refuge for many species like Snow Cock, Chukor, Black Ring Stilt, Kestrel, Golden Eagle, Chough, Red Fox, Himalayan Ibex, and Blue Sheep. These species, over the years, have developed special physiological features as adaption strategies to cold arid climate, intense radiation, and oxygen deficiency. Some 65% of the larger catchment is degraded forest due to overgrazing by the nomadic herdsmen, while 35% are covered by grasslands. Other threatening factors to this fragile and sparse vegetation are summer trekking, littering waste, and lack of sanitation facilities. Since declaring the site a nationally important wetland in 1994, the authorities have been providing funds for ecotourism facilities. Spiti Forest Department is the custodian and State Council of Science, Technology and Environment is coordinating conservation management. Ramsar site no. 1569. Most recent RIS information: 2005.

Tsomoriri. 19/08/02. Jammu & Kashmir. 12,000 ha. 32°54'N 078°18'E. Wetland Reserve. A freshwater to brackish lake lying at 4,595m above sea level, with wet meadows and borax-laden wetlands along the shores. The site is said to represent the only breeding ground outside of China for one of the most endangered cranes, the Black-necked crane (*Grus nigricollis*), and the only breeding ground for Bar-headed geese in India. The Great Tibetan Sheep or Argali (*Ovis ammon hodgsoni*) and Tibetan Wild Ass (*Equus kiang*) are endemic to the Tibetan



plateau, of which the Changthang is the westernmost part. The barley fields at Korzok have been described as the highest cultivated land in the world. With no outflow, evaporation in the arid steppe conditions causes varying levels of salinity. Ancient trade routes and now major trekking routes pass the site. The 400-year-old Korzok monastery attracts many tourists, and the wetland is considered sacred by local Buddhist communities and the water is not used by them. The local community dedicated Tsomoriri as a WWF Sacred Gift for the Living Planet in recognition of WWF-India's project work there. The rapidly growing attraction of the recently opened area to western tourists (currently 2500 per summer) as an "unspoilt destination" with pristine high desert landscapes and lively cultural traditions brings great promise but also potential threats to the ecosystem. Ramsar site no. 1213. Most recent RIS information: 2002.

Surinsar-Mansar Lakes. 08/11/05; Jammu & Kashmir; 350 ha; 32°45'N 075°12'E. Wildlife Sanctuary, Hindu sacred site. Freshwater composite lake in semi-arid Panjab Plains, adjoining the Jhelum Basin with catchment of sandy conglomeratic soil, boulders and pebbles. Surinsar is rain-fed without permanent discharge, and Mansar is primarily fed by surface run-off and partially by mineralised water through paddy fields, with inflow increasing in rainy season. The lake supports CITES and IUCN Redlisted *Lissemys punctata*, *Aspideretes gangeticus*, and *Mansariella lacustris*. This composite lake is high in micro nutrients for which it is an attractive habitat, breeding and nursery ground for migratory waterfowls like *Fulica atra*, *Gallinula chloropus*, *Podiceps nigricollis*, *Aythya fuligula*, and various *Anas* species. The site is socially and culturally very important with many temples around owing to its mythical origin from the Mahabharata period. Although the lakes support variety of fishes, fishing is discouraged for religious values. The main threats are increasing visitors, agricultural runoff, bathing and cremation rituals. Conservation is focused on awareness-raising. Ramsar site no.1573. Most recent RIS information: 2005.

Hokera Wetland. 08/11/05; Jammu & Kashmir; 1,375 ha; 34°05'N 074°42'E. Located at the northwest Himalayan biogeographic province of Kashmir, back of the snow-draped Pir Panchal (1,584m asl.), Hokera wetland is only 10 km from scenic paradise of Srinagar. A natural perennial wetland contiguous to the Jhelum basin, it is the only site with remaining reedbeds of Kashmir and pathway of 68 waterfowl species like Large Egret, Great Crested Grebe, Little



Cormorant, Common Shelduck, Tufted Duck and endangered White-eyed Pochard, coming from Siberia, China, Central Asia, and Northern Europe. It is an important source of food, spawning ground and nursery for fishes, besides offering feeding and breeding ground to a variety of water birds. Typical marshy vegetation complexes inhabit like Typha, Phragmites, Eleocharis, Trapa, and Nymphoides species ranging from shallow water to open water aquatic flora. Sustainable exploitation of fish, fodder and fuel is significant, despite water withdrawals since 1999. Potential threats include recent housing facilities, littered garbage, and demand for increasing tourist facilities. Ramsar site no. 1570. Most recent RIS information: 2005.

Wular Lake. 23/03/90; Jammu & Kashmir; 18,900 ha; 34°16'N 074°33'E. The largest freshwater lake in India with extensive marshes of emergent and floating vegetation, particularly water chestnut, that provide an important source of revenue for the State Government and fodder for domestic livestock. The lake supports an important fishing industry and is a valuable source of water for irrigation and domestic use. The area is important for wintering, staging and breeding birds. Human activities include rice cultivation and tree farming. Ramsar site no. 461. Most recent RIS information: 1990.



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About CEBPOL

Government of India in collaboration with the Norwegian Government has established "Centre for Biodiversity Policy and Law (CEBPOL)" at the National Biodiversity Authority (NBA), an autonomous and statutory body of the Ministry of Environment Forest and Climate Change towards strengthening of expertise in Biodiversity Policy and Law in India. This programme is executed by the NBA in collaboration with Norwegian Environment Agency through the Royal Norwegian Embassy, New Delhi, India.

The Centre aims to provide advice and support to the Government of India and Norway on Biodiversity Policy and Law related issues including complex negotiations on Access and Benefit Sharing and Traditional knowledge as well as governance issues relating to biodiversity at the National and International level. The Centre proposes to help NBA in the effective implementation of International agreements on conservation, sustainable use and the associated access and benefit sharing components of it.

CEBPOL is set up as a specialized Centre of Excellence in Biodiversity Policy and Law to network, organize and consolidate expertise on issues of Biodiversity Policy and Law in India and Norway. The Centre, located at NBA, would function as an independent think tank on Biodiversity Policy and Law. In addition, CEBPOL aims to contribute to the effective implementation of the Biological Diversity Act 2002 and Rules 2004.

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