United Nations Environment Programme

**Plenary of the Intergovernmental Science-Policy Platform on
Biodiversity and Ecosystem Services
First session**
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Item 5 of the provisional agenda*
Initial work programme of the Platform

Compilation of the capacity-building needs on the basis of input by Governments and other stakeholders and capacity-building needs identified in multilateral environmental agreement reports

Note by the secretariat

The annex to the present note, prepared by the secretariat of the United Nations Environment Programme, takes into consideration comments provided by Governments and other stakeholders during the intersessional period on capacity-building needs and a review of capacity-building needs identified in reports submitted pursuant to multilateral environmental agreements. The comments received with regard to capacity-building needs are also available online (www.ipbes.net). The annex has been reproduced as received, without formal editing.

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Annex

Capacity-building needs and activities

I. Introduction

1.   The second session of the plenary meeting to determine modalities and institutional arrangements for an intergovernmental science-policy platform on biodiversity and ecosystem services held in Panama City from 16 to 21 April 2012 approved the intersessional work to prepare for the first session of the Platform's Plenary.[1] The list of work identified included the following:

> 9.   *Governments and other stakeholders were invited to make submissions on capacity-building needs and suggestions for the activities and partnerships that might address those needs. The secretariat was requested to compile the information and to make it available at the first session of the Plenary, together with related information on capacity-building needs identified in the national reports submitted to biodiversity and ecosystem services-related multilateral environmental agreements. Such submissions could include:*
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> > *(a)   Identification of means and opportunities for improving supporting mechanisms, including online tools, communities of practice and access to data, information and knowledge (including, as appropriate, improving understanding of how to use these tools);*
> >
> > *(b)   Identification of the most effective means for promoting and facilitating subglobal assessments as a means of driving capacity development and contributing to future assessments of the Platform, building on existing tools and networks;*
> >
> > *(c)   Review of the contribution of existing national and regional centres of excellence, and the contribution that they can make to building capacity within and outside their regions, including recommendations of potential mechanisms for developing this further;*
> >
> > *(d)   Identification of means by which capacity-building needs and existing and new financial and technical support can be matched, including through donor meetings and "matchmaking" tools and practices;*
> >
> > *(e)   Proposed means for ensuring balanced participating in all work programme activities of the Platform.*

2.   Subsequently Governments and other stakeholders were invited to submit to the interim secretariat of the Platform at the United Nations Environment Programme (UNEP) proposals on both capacity building needs and suggestions for activities and partnerships that might address those needs, with a deadline for submission of 16 August 2012. As of the end of October there were submissions from the following Governments: Chile. Denmark, Fiji, Guinea-Bissau, Kenya, Mexico, Nigeria, Norway, South Africa, the United Kingdom of Great Britain and Northern Ireland, and the United States of America (all Members of the Platform). There were also submissions

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[1]   Annex II to UNEP/IPBES.MI/2/9 *Report of the second session of the plenary meeting to determine modalities and institutional arrangements for an intergovernmental science-policy platform on biodiversity and ecosystem services.*

from the Convention on Migratory Species (CMS), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Secretariat of the Global Biodiversity Information Facility (GBIF), the United Nations Development Programme (UNDP), the UNEP World Conservation Monitoring Centre (UNEP-WCMC) and the International Union for Conservation of Nature (IUCN). These submissions, all of which are available in full on the IPBES website, are summarized in Section II. Also included in this section is input from the Convention on Biological Diversity (CBD) contained within the document on collaboration with the Platform[2] which provided the basis for negotiation on the issue at the 11thmeeting of the CBD Conference of the Parties (COP-11) held in October 2012 (noting in particular paragraphs 20-23 and Annex I to the paper).

3.   In addition, a review was made of the capacity building needs identified in national reports submitted to biodiversity and ecosystem-service related multilateral environmental agreements (MEAs). The resulting synthesis draws on the most recent reports submitted to seven MEAs,[3] and was drafted with the knowledge of and input from the relevant MEA secretariats, who were given opportunity to review and comment on the resulting report (although the results are presented here in a different way). This synthesis can be found in Section III.

4.   Capacity building in the context of IPBES has been discussed on a number of previous occasions, and there are several relevant documents and information documents which might also inform further discussion on this issue. An annotated list of these documents and information documents is provided in Annex 1. Several of the submissions referred to these earlier documents and discussions, and some recommended that key messages from this work should be considered alongside consultation responses. Reference was also made to information from National Capacity Self Assessments, which has also previously been summarized in two of these documents.[4]

II.   Submissions by Governments and other stakeholders

A.   General comments made in the submissions

5.   Some governments stressed the need for balance between the main functions of IPBES within the work programme of the Platform, while others drew attention to the expectation that the Platform would integrate capacity building into all relevant aspects of its work, observing that the capacity building element of the work programme was essential for ensuring the Platform's legitimacy on the global stage. In this regard it was argued that effective capacity building was not only essential for completion of IPBES assessments, but that it should be carried out as an integral part of assessments and not as a stand-alone activity. The view was that integration of capacity building within the assessment process was necessary to foster sustainability

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[2] UNEP/CBD/COP/11/19/Add.1 *Collaboration with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*.
[3] The seven MEAs covered are: Convention on Biological Diversity (CBD); Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); Convention on Migratory Species (CMS) as well as the African-Eurasian Waterbird Agreement (AEWA) concluded under its auspices; United Nations Convention to Combat Desertification (UNCCD); Ramsar Convention on Wetlands; and World Heritage Convention.
[4] UNEP/IPBES/2/INF/1 and UNEP/IPBES/3/INF/3.

and maximize capacity building efforts, and that capacity building efforts would therefore vary over time according to the focus and needs of each ongoing assessment.

6.   Various submissions suggested that the IPBES Plenary might wish to consider a number of principles as a basis for guiding capacity building under the Platform, and these are set out in Annex 2. In addition three strategies were proposed for consideration when addressing capacity building in the context of IPBES:

(a)   strengthen the connectivity between existing institutions with respect to capacity building through a networked approach;

(b)   identify and match priority capacity building needs with existing capacities and resources as part of the scoping of IPBES deliverables; and

(c)   integrate capacity building into IPBES activities with the support of generic tools and methodologies, and a networked approach.

7.   Capacity building and capacity building needs have already been discussed a number of times in the context of IPBES, and attention was drawn to a summary list of capacity building needs that have previously been made available (see Annex 3).[5] It was also noted that previous suggestions had been made[6] dividing capacity building in the context of IPBES into three groupings with respect to the way in which IPBES might support them:

(a)   capacity building activities that could qualify entirely for IPBES support as they are directly related to IPBES activities, and in particular to the implementation of the work programme;

(b)   capacity building activities that can be catalyzed by IPBES decisions and mandates as they are broadly important for building the science-policy interface, but for which additional resources would need to be found (for example through the proposed donor forum); and

(c)   other capacity building, which may be important for IPBES (such as institution building, but which is essentially beyond the mandate of IPBES and is widely addressed by other organizations and processes.

8.   Finally, attention was drawn again to the three broad areas of capacity building needs previously identified by GRULAC,[7] and it was suggested that these might help guide prioritization of capacity building needs. These areas are:

(a)   improved access to data and information on biodiversity and ecosystem services, through online tools and repatriation of information;

(b)   improved access to technologies and experience, through training and other opportunities for scientists in developing countries; and

(c)   development of a network of IPBES focal points to improve coordination and access to technical support.

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[5] See Annex 5 of the meeting report (www.dirnat.no/expertmeeting), and Section 3 of the scoping paper on *Capacity Building for IPBES: Needs and Options* prepared for the meeting by UNEP-WCMC at the request of the Norwegian Directorate for Nature Management.

[6] See Subsection 6.1 of the scoping paper on Capacity Building for IPBES: Needs and Options prepared for the meeting by UNEP-WCMC at the request of the Norwegian Directorate for Nature Management (www.dirnat.no/expertmeeting).

[7] UNEP/IPBES/2/INF/6 *Capacity building in an intergovernmental science-policy platform on biodiversity and ecosystem services.*

9.   Some Governments noted that capacity building needs were often already well known, and that there was a need to identify key gaps from existing knowledge, and explore what types of partnership could be developed to support capacity building and address these gaps. This is in part what this exercise is about, but needs and opportunities will clearly change over time as capacities and needs evolve, and as new needs are identified through IPBES scoping processes. In fact most of the submissions either directly or indirectly highlighted the importance of using and building on existing knowledge, experience and activities. In the submission made by one MEA secretariat, it was noted that IPBES would be expected to provide added value and help to coordinate or support existing activities, and not duplicate or supplant them.

B.   Identified needs

The following key needs were identified in submissions

(a)   Accessible data, information and knowledge

(b)   Capacity for national and sub-regional assessments

(c)   Capacity to bring together science with local knowledge

(d)   Access to existing experience, tools and technologies

(e)   Ability to participate effectively in IPBES assessments

(f)   Ensuring the necessary skills base

(g)   Capacity to locate the necessary financial and technical resources

10.   A number of needs were communicated in the submissions from Governments and other stakeholders, and are identified below. In addition, attention was drawn to the outcomes from the Trondheim international expert meeting which might also need further consideration,[8] and, more generally, to the need to build capacity to respond to knowledge gaps that were already known.

11.   Accessible data, information and knowledge: In highlighting the value of national centres of excellence, attention was drawn to the importance of having accessible, systematized information capable of generating the intelligence and knowledge necessary for supporting the conservation and sustainable use of biodiversity and ecosystem services. Also the need for web-based information systems for information sharing and to enhance close cooperation and consultation was highlighted, together with the need for improved access to data and to research publications. Attention was also drawn to the need for baselines and long-term monitoring programmes to contribute to the knowledge base sustainably, including the monitoring of effectiveness, and approaches for conserving traditional knowledge.

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[8] UNEP/IPBES.MI/1/INF/10 *Final report of the international expert meeting on IPBES and capacity building, co-convened by the Governments of Norway and Brazil, and held in Trondheim, Norway, on 25-27 May 2011*

12.   Capacity for national and sub-regional assessments: The importance of assessments at the national and sub-national levels was recognized, not only in the knowledge and outputs that they deliver, but also through the processes that they establish and the stakeholder engagement that they foster. The value of national assessments providing a basis for national contributions to sub-regional, regional and global assessments was also highlighted. Certain governments focused on the need for training in this area, and specifically in carrying out TEEB-like assessments, and others identified the need for capacity in understanding the economic value of ecosystems, and demonstrating the contribution of renewable natural resources and ecosystem services to GDP. In addition, a number of specific areas were identified where improved capacity was needed in carrying out assessments, including valuation and assessment of management options and effectiveness.

13.   Capacity to bring together science with local knowledge: Attention was drawn to the urgent need for people's skills to understand how to combine modern science with local and indigenous knowledge as a basis for assessing the current status of biodiversity and ecosystem services, and developing change scenarios. In addition attention was specifically drawn to the need for training indigenous people and local communities so that they could engage more effectively, although it was recognized that this was a two way process with scientists also needing to learn how to work more effectively with local communities.

14.   Access to existing experience, tools and technologies: Many of the submissions referred to the experiences of countries and institutions in carrying out activities relevant to IPBES, and the general willingness to share such experiences. The best means of doing this need further consideration, but may include review of the use and future direction of the IPBES Catalogue of Assessments, and ways in which IPBES might engage with existing initiatives such as the Sub-Global Assessment Network or evolving initiatives such as BES-Net. Specific attention was drawn to the need for technology transfer that facilitates biodiversity taxonomy, monitoring and research, and mechanisms to support and encourage multi-disciplinary research.

15.   Ability to participate effectively in IPBES assessments: The need was clearly identified for full and effective participation by developing countries in IPBES assessments so as to ensure appropriate balance, and to ensure that all Members had the opportunity to input to and benefit from assessment processes. A number of submissions recommended specific actions to help ensure and monitor balance in participation (including in the participation of developing country NGOs).

16.   Ensuring the necessary skills base: Many of the submissions imply a need for a stronger cadre of professionals working at the science-policy interface, and submissions from developing country governments specifically recognized the need to build a sufficient level of manpower (both the number of people and the spread of skills) for the necessary interdisciplinary research, monitoring, and communication, and to improve assessment and monitoring of the value and use of natural resources, and of the potential impacts on them. Specific mention was made of the need for hands-on training in areas such as georeferencing, bioinformatics, setting up scientific collections, and natural resource accounting. Attention was also drawn to the need to build experience relevant to implementation of specific MEAs (for example assessment of CITES-listed species), and to the need to build capacity with respect to specific priority habitats such as mangroves.

17.   Capacity to locate the necessary financial and technical resources: The need for building institutional capacity to raise the funding necessary for many of the activities was seen as key for addressing knowledge gaps, and for ensuring the effective use of that knowledge. In this context the need for clear communication of capacity building needs at relevant scales was recognized, so as to facilitate involvement of funding donors. Meanwhile a significant number of those making submissions were concerned with the need to find effective mechanisms for matching existing capacity and financial and technical support with identified needs.

C.   Identified mechanisms

The following mechanisms were identified in submissions

(a)   Identifying capacity building needs and opportunities as part of scoping processes

(b)   Establishing fellowship and mentoring programmes

(c)   Promoting and supporting the development of national centres of excellence

(d)   Using the experience of existing national centres of excellence

(e)   Promoting national and sub-regional assessments

(f)   Recognizing and promoting the role of international organizations

(g)   Promoting and supporting communities of practice and knowledge networks

(h)   Encouraging increased use of multi-stakeholder dialogues

(i)   Matchmaking between those who have resources, and those who need them

(j)   Ensuring a coordinated approach amongst organizations supporting capacity building

(k)   Promoting and supporting data and information networks

(l)   Promoting and supporting universities and research institutions

(m)   Developing a network of IPBES focal points

(n)   Considering development of a Clearing House Mechanism

(o)   Supporting development of a moderated web portal to support capacity building

(p)   Developing and implementing effective communication strategies at all levels

(q)   Developing key partnerships amongst supporting organizations

(r)   Continued consultation on capacity building needs and opportunities

(s)   Periodic evaluation of capacity building efforts

18. A number of potential mechanisms were communicated in the submissions from Governments and other stakeholders, and are identified below. In addition, one government considered the modalities needed for supporting the implementation of the capacity building component of the work programme, and asked whether the Multidisciplinary Expert Panel (MEP) should have a role in overseeing the capacity building programme. In addition, attention was drawn by another government to the need for identified individuals on the MEP who would be focal points for helping to ensure that specific capacity building needs were being addressed. Both are issues the Plenary might wish to consider.

19. Identifying capacity building needs and opportunities as part of scoping processes: Attention was drawn to the need to consider further how capacity building could be effectively addressed within the scoping of IPBES deliverables. It was recognized that the scoping of each assessment, policy support tool and knowledge generation deliverable could include the identification of generic capacity building needs and existing capacities and resources, and that capacity building could also be considered in the context of assessment of policy relevant tools and methodologies and how they are used.

20. Establishing fellowship and mentoring programmes: A number of submissions proposed the establishment of fellowship programmes to allow young professionals from developing countries to work alongside professionals from elsewhere, in order to increase their own experience. This is consistent with the view that action needed to be taken to facilitate the involvement of developing country experts in assessments, and in the research and development of policy relevant tools and methodologies. The development of an active mentoring programme was also proposed, in order to provide the fellows the opportunity for continued networking and support.

21. Promoting and supporting the development of national centres of excellence: Several governments drew attention to the value of national institutions in providing access to the science base necessary for informing policy and decision making, and suggested that IPBES could promote the establishment of such Centres elsewhere. This is consistent with the concern expressed in other submissions that national coordinating institutions needed strengthening, and the view that those developing countries that have already established strong programmes are well placed to support other developing countries. Attention was also drawn to the potential value of mentoring programmes aimed at leveraging and enhancing capacity by promoting partnerships between different national nodes for sharing expertise and experience.

22. Using the experience of existing national centres of excellence: Many of the submissions recommended that the experience of existing national centres and initiatives could support training, workshops and peer-to-peer exchanges in a wide range of activities relating to the capture, management and use of data and information concerning biodiversity and ecosystem services. A focus on development of collaboration among national centres at the regional level was also proposed, based on the experience of GBIF in capacity building for improved data capture, management and sharing. It was also noted that a number of these centres of excellence were already working closely with MEA secretariats on a number of levels (for example as scientific focal points or authorities).

23. Promoting national and sub-regional assessments: Most submissions either explicitly referred to the promotion and/or facilitation of national and sub-regional assessments, or implied it through the other activities that they referred to. The general

thrust of these comments is that IPBES should promote national and sub-regional assessments, and undertake and facilitate other activities that support the building of capacity necessary for carrying out and using the results of such assessments.

24. <u>Recognizing and promoting the role of international organizations</u>: Governments generally recognized the valuable supporting role played by a number of United Nations bodies, MEAs, and other international organizations and processes, including those with both regional and global focus. Indeed, annexed to one of the government submissions was a consultative paper jointly prepared with two international organizations on exploring strategies and means for supporting capacity building under IPBES. There were also a number of submissions from international organization and processes, all identifying how their work with respect to capacity building can help support IPBES, including work that is already under way.

25. <u>Promoting and supporting communities of practice and knowledge networks</u>: There was support for increased networking, and the promotion and support of communities of practice. Communities of practice such as the Sub-Global Assessment network can support the sharing of experience, mentoring, and training, and promote collaboration on the development and use of policy support tools and methodologies. The important role that sharing of experience and tools could play in building capacity to carry out assessments at national and sub-national levels was also recognized, and attention was drawn to a number of areas where the development and use of specific tools and methodologies could be promoted by working with dedicated communities of practice or knowledge exchange platforms. Some of the MEAs have experience of this sort of approach, such as building collaboration between CBD Clearing House Mechanism focal points under the CBD, or the network of CITES authorities.

26. <u>Encouraging increased use of multi-stakeholder dialogues</u>: Reference was made to the value of multi-stakeholder dialogues in improving the capacity of local or national experts to tackle issues in an interdisciplinary setting, and it was also suggested that IPBES might collect information on such initiatives and promote them, possibly also giving more explicit recognition to key knowledge exchange platforms.

27. <u>Matchmaking between those who have resources, and those who need them</u>: Value was seen in developing some form of 'matchmaking' service that would bring together those who had resources (financial or technical) with those that needed them, and some governments saw this as a major task of IPBES with respect to capacity building. In this context, attention was also drawn to the existing decision within the Busan outcome[9] and the agreed functions of the platform[10] to provide a forum for catalyzing funding for capacity building.

28. <u>Ensuring a coordinated approach amongst organizations supporting capacity building</u>: A number of governments and other stakeholders were concerned that IPBES should coordinate closely with other institutions and processes that already support capacity building (whether financially or technically) so as to ensure that IPBES builds on and strengthens existing efforts. In this regard it was suggested that: (a) IPBES might invite such institutions and processes to share their views on how such coordination might best be achieved; (b) a review of regional coordination

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[9] UNEP/IPBES/3/3 *Report of the third ad hoc intergovernmental and multi-stakeholder meeting on an intergovernmental science-policy platform on biodiversity and ecosystem services.*
[10] UNEP/IPBES.M/2/9 *Report of the second session of the plenary meeting to determine modalities and institutional arrangements for an intergovernmental science policy platform on biodiversity and ecosystem services.*

activities would help in identifying opportunities, best practice and gaps; and (c) consideration might be given to establishing an informal working group amongst the GEF implementing and executing agencies with the aim of promoting best practice amongst the activities that they oversee (something that could potentially be communicated to those preparing the GEF-6 focal area strategy document).

29.   Promoting and supporting data and information networks: Many submissions recognized the importance of developing and implementing information networks that promote and facilitate the sharing of data and information, and, where appropriate, its repatriation. A role was also seen for IPBES in promoting improved access to online journals, virtual libraries and the like (consistent with the concerns expressed by GRULAC at earlier IPBES meetings[11]), the suggestion was also made that IPBES might promote means for increasing access to major grey literature collections. Meanwhile it was recommended that IPBES might work with other relevant international initiatives to explore means of enhancing capacity in biodiversity data management and sharing, in providing improved access to knowledge.

30.   Promoting and supporting universities and research institutions: One government drew attention to the work it does at the national level to promote and support universities and research institutions in applied research to address specific problems, and for developing human capacity in the field of biodiversity informatics and the capture, management and use of data and information. This was essentially supported as an approach by other submissions which proposed working through national research councils and other interested organizations to support the funding of studentships and research programmes linked to the IPBES work programme, and to national science-policy interfaces.

31.   Developing a network of IPBES focal points: A number of submissions proposed developing a network of IPBES focal point to improve coordination and access to technical support, consistent with the suggestions made by GRULAC at earlier IPBES meetings. [12] These focal points would presumably also be liaison points for the IPBES Secretariat on capacity building issues, and at the national level would also interact with the national focal points for the different MEAs.

32.   Considering development of a Clearing House Mechanism: Several of the activities identified above could be facilitated through an effective clearing house mechanism of some form, and the exchange of data and information through the development and maintenance of appropriate clearing-house mechanisms was explicitly referred to in some submissions. In addition, the development and maintenance of searchable databases of scientists, research groups, research projects and research institutions was proposed, so as to increase recognition and understanding of who is working on what issues. This has parallels with the Catalogue of Assessments which IPBES is already compiling, and is particularly relevant to promotion and support for communities of practice (see above).

33.   Supporting development of a moderated web portal to support capacity building: In addition the development of a moderated web portal to support capacity building was suggested. In fact UNDP is currently developing a possible prototype based on

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[11] UNEP/IPBES/2/INF/6 *Capacity building in an intergovernmental science-policy platform on biodiversity and ecosystem services.*

[12] UNEP/IPBES/2/INF/6 *Capacity building in an intergovernmental science-policy platform on biodiversity and ecosystem services.*

previous experiences with such tools, and is intending to explore the potential value of this tool with practitioners in the margins of upcoming IPBES meetings. In the context of online services to support capacity building, attention was also drawn to the CITES Virtual College,[13] and to the efforts being made by multiple MEAs with the support of UNEP to ensure improved access to data, information and knowledge held by MEA secretariats under the MEA Information and Knowledge Management initiative.[14]

34.   Developing and implementing effective communication strategies at all levels: Attention was drawn to the importance of effective communication of IPBES in the most appropriate means to the many different stakeholders across society. Formats, mechanisms and the language used would vary significantly, depending on the target audience, and it was also suggested that the products should be effectively integrated into formal education systems. Effective communication is also consistent with a number of the other activities referred to above.

35.   Developing key partnerships amongst supporting organizations: Consistent with many of the activities identified above, it was stressed that there was a need to build on existing analyses (see Annex 1) and the Trondheim outcomes[15] to identify opportunities for developing key partnerships that will help IPBES to meet its commitments. This would include strategic partnerships with relevant international initiatives. Examples of such partnerships referred to in a number of submissions included with: GBIF; the Group on Earth Observations Biodiversity Observation Network (GEOBON); the Biodiversity Indicators Partnership (BIP); and the Sub-Global Assessment Network. Attention was also drawn to the potential value of cooperation with global and regional institutions specializing in education and training in relevant disciplines.

36.   Continued consultation on capacity building needs and opportunities: A number of submissions recognized the value of continued consultation, and the suggestion was also made that a joint meeting between Governments on capacity building for IPBES in relation to the work programme would be valuable. Suggestions made also included regional meetings comprising a balanced group of stakeholders convened to discuss ways of identifying capacity building needs, bottlenecks, existing capacities and the tools, networks and processes that would best support ways of addressing such needs. The findings of such meetings would help to support discussion on the work programme with respect to capacity building, and assist identification of priority needs. Linked to this, it was also recognised that the Platform needed to consider how frequently and by what methods it would continue to review capacity building needs, activities and partnerships.

37.   Periodic evaluation of capacity building efforts: Finally, it was considered that the success of capacity building measures needed to be determined through ongoing evaluation of tangible deliverables, and of how effectively skills and technologies were being applied. This would include implementing a monitoring process to ensure that commitments on balanced participation were being met.

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[13] See https://eva.unia.es/cites/.

[14] See www.informea.org.

[15] UNEP/IPBES.MI/1/INF/10 *Final report of the international expert meeting on IPBES and capacity building, co-convened by the Governments of Norway and Brazil, and held in Trondheim, Norway on 25-27 May 2011.*

III. Needs identified in national reports to multilateral environmental agreements

Summary finding:

Overall, there are potentially significant opportunities for IPBES to help address capacity building needs identified in national reports to the biodiversity-related MEAs. Review of the mechanisms identified above from submissions by Governments and other stakeholders suggests that if these activities are all carried out they will ultimately contribute to building capacity for implementation of MEAs through improvements in the availability of data, information and knowledge, through improvements in collaboration and coordination, and through improvements in the skills base.

A. Scope and coverage of the review

38. Capacity building is an integral component of MEAs, as without such support many countries would not be able to fulfill their commitments in implementing the agreements. Despite this, capacity building needs are often not directly addressed, or may not be as clearly articulated as they might be, national reports to the biodiversity-related MEAs. This is because many of the templates or guidelines for national reporting do not contain specific questions directing Parties to identify their capacity building requirements. The information available in national reports on capacity building needs can therefore vary considerably, depending on national circumstances as well as on how responses in the national reports have been composed.

39. As a result, much of the information on capacity building needs in what follows has been inferred from challenges, constraints, requirements and priorities for action listed by Parties in their reports, and not from responses articulating a specific capacity building need. For example, in their CBD national report, one Party stated a key challenge was that it has very poor knowledge of biological and ecological characteristics of species and their ranges, but it did not directly state this as a capacity building need. It has however been assumed for the purposes of this review that this Party has a capacity building need in this area.

40. It was not possible to go through every national report available for all the MEAs considered in this review, as the process for distilling capacity building needs from national reports can be very time consuming. This review draws on national reports across six MEAs, three periodic regional reports from the second reporting cycle for the World Heritage Convention, and a range of summary or synthesis documents of information from national reports and national report analytical tools that were available. The table below shows the MEAs and sources of information that were included in this analysis, and Annex 4 contains summaries of research undertaken for each MEA.

Convention	Sources of information
Convention on Biological Diversity (CBD)	4th national reports; UNEP/CBD/COP/11/19/Add.1
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	Biennial reports; CoP15 Inf.43; Standing Committee documents (e.g. SC62 Com.6)
Convention on Migratory Species (CMS)	National reports; UNEP/CMS/CONF.10.11 (with annex)
African-Eurasian Waterbird Agreement (AEWA)	National reports
United Nations Convention to Combat Desertification (UNCCD)	National reports
Ramsar Convention on Wetlands	National reports
World Heritage Convention	Periodic regional reports (second cycle)

41.   In total 169 individual national reports from 110 different countries were reviewed, with countries selected to ensure a cross-section of small island developing states (SIDS), least developed countries (LDCs), developing countries, newly industrialized countries and transition economies from each geographical region. Only a small number of reports from developed countries were reviewed, as it was considered that these countries are less likely to highlight capacity building needs and require direct capacity support. A further 35 countries were covered in regional reports for the World Heritage Convention, and of course many more in the synthesis reports that were reviewed. Full lists of countries reviewed for each MEA can be found in Annex 4.

42.   Finally, while this review focuses on national reports to MEAs, as was requested, it should also be noted that capacity building needs can be directly identified from the many decisions taken by MEA governing bodies. For example CBD COP decision XI/5 on the financial mechanism, or CITES COP decisions 12.90 to 12.93 concerning the capacity building programme for science-based establishment and implementation of voluntary national quotas for Appendix-II species.

B.   Needs identified

43.   Not surprisingly, the findings suggest that many countries have similar constraints, challenges and capacity building needs across all MEAs. The following table provides a summary of the capacity building needs identified in more than 10% of the national reports for six of the MEAs (excluding the World Heritage Convention) reviewed for this task. Across the six MEAs, in over half of the reports reviewed either financial resources was listed as a key capacity building need, or the lack of financial resources was identified as a challenge to effective implementation of MEAs. In addition nearly a third of reports made reference to need for: training and skills development; legislation and policy development, implementation, and enforcement; and adequate staffing. A significant number of reports also indicated a need for

technical equipment and material support, consistent with response to questions of a technical nature in a number of the MEA reporting templates.

Summary of capacity building needs identified in reports to the biodiversity-related MEAs (excluding the World Heritage Convention)	% of reports reviewed
Financial resources	56%
Training and skills development	30%
Legislation and policy development, implementation, and enforcement	29%
Human resources (staffing)	28%
Technical equipment/material support	23%
Integrated management and improved coordination across government and stakeholders at the national level	17%
Regional and international cooperation (e.g. knowledge exchange, technology transfer)	13%
Data to track and monitor status and trends	11%

44. The following table highlights the top five capacity building needs identified from the second cycle of periodic regional reports to the World Heritage Convention for the Africa Region, the Asia-Pacific Region and the Arab States. These needs are again very similar in nature.

Top five capacity building needs identified in reports for the World Heritage Convention
Enforcement
Legislation
Human resources (staffing)
Financial resources
Training and skills development

45. Looking in more detail at the capacity building needs identified in — or inferred from — national reports to each of the MEAs helps to provide further understanding of these needs, although these needs will inevitably be focused to some extent on the objectives of the individual MEAs.

46. Convention on Biological Diversity: In addition to the summary of capacity building needs related to IPBES identified in the 4th national reports prepared by the CBD Secretariat[16] which were addressed earlier (and which are included in full in Annex 5), 18 Party reports were reviewed in full when preparing this information document. The

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[16] UNEP/CBD/COP/11/19/Add.1 *Collaboration with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*

following were the most frequently listed priorities and needs in these reports (a full list of the countries can be found in Annex 4):

- Staff training and skills development (including in accessing funding)

- Specialist staff including both technical and scientific experts

- Scientific research, taxonomic information, species data

- Support for developing and implementing NBSAPs and other action plans

- Data to track and monitor status and trends in biodiversity

- Data management, clearing house mechanisms, information sharing networks

- Legislation and policy development, implementation, and enforcement

- Management planning, action planning and legislation for specific interventions

- Public participation and community engagement in decision-making

- Education and public awareness raising about biodiversity

- Mainstreaming biodiversity considerations and coordination with other sectors

- Greater involvement by local/regional government

- Policies, procedures and legislation for preservation and use of traditional knowledge

- Strengthening protected area networks and coverage

- Support for implementation of the Cartagena Protocol

- Human and financial resources

- Economic evaluation of biodiversity and environmental accounting

- Support for environmental impact assessment

47.   Convention on Trade in Endangered Species of Wild Fauna and Flora: Analysis of selected questions (Section D6 Q1 and Q2 and Section D8 Q1) in the CITES biennial reports for 23 Parties (see list in Annex 4) and the analysis and synthesis in CoP15 Inf. 43 indicate that for developing country respondents, the most important future requirements are:

- Development of implementation tools

- Increased budgets

- Improved national networks

- Increased staff capacity and skills

- Increased technical equipment

48.   Convention on Migratory Species: The following capacity building needs were identified in the analysis and synthesis of national reports which was undertaken for CMS COP 10 which took place in Bergen, Norway in November 2011.[17] The capacity building needs identified as necessary for overcoming obstacles to successful implementation of the Convention were:

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[17] UNEP/CMS/CONF.10.11 (including its Annex) *Analysis and Synthesis of National Reports*.

- Financial support

- Regional/international cooperation (including knowledge exchange)

- Scientific research and monitoring

- Technical/material support

- Training

49.   African-Eurasian Waterbird Agreement: Analysis of 16 reports (see list in Annex 4) identified a number of challenges, gaps and priorities in implementation of the Convention which inferred the following capacity building needs:

- Training and skills development (particularly support to improve species and habitat conservation and management)

- Monitoring and assessment activities and support (financial, human, or technical)

- Regional and international cooperation (e.g. knowledge exchange)

- Financial resources

50.   United Nations Convention to Combat Desertification: Review of answers to two questions in 36 national reports (see list in Annex 4) yielded the following list of capacity building needs. The two questions were the ones dealing with problems, constraints and bottlenecks, and with problems encountered by those Parties without national monitoring systems. Issues identified were:

- Financial resources

- Staffing (including specialist staff such as technical and scientific experts)

- Education, training and skill development (particularly on technical issues)

- Coordination of donor activities to avoid duplicating efforts

- Public and community awareness

- Research and training institutions

- National reporting (capacity for data access, compilation of reports including data entry and report writing)

- Integrated management of issues and coordination across stakeholders

- Legislative frameworks and law enforcement

- Development and implementation of action plans

- Coordination among the different institutions and organisations

- Scientific and technical knowledge

51.   Ramsar Convention on Wetlands: Review of 30 national reports (see list in Annex 4) yielded the following list of capacity building needs, in particular from questions on difficulties in implementation, priorities for future implementation, and recommendations for implementation assistance from the Secretariat. Issues identified were:

- Financial resources

- Human resources

- Integrated management and improved coordination across stakeholders at national level

- Action plan development, updating and implementation

- Centralised data management systems and inventories

- Legislation and policy development, implementation and enforcement

- Education and public awareness

- Training and skills development

- Public participation and community engagement in decision-making

- Mainstreaming biodiversity considerations and coordination with other sectors

- Data to track and monitor status and trends

52.   <u>World Heritage Convention</u>: Based on regional reports for the Africa Region, Asia and the Pacific, and the Arab States, which are themselves based on reports from individual States Parties within the regions, the following capacity building needs have been identified:

- Improvements to boundaries and buffer zones (Africa)

- Capacity to address development pressures (Africa)

- Strengthened and improved legal frameworks (Africa; Asia-Pacific)

- More capacity for enforcement (Africa, Asia-Pacific; Arab States)

- Mechanisms to combat illegal activities including destruction of heritage (Africa)

- More financial resources (Africa; Asia-Pacific)

- More human resources (Africa; Asia-Pacific; Arab States)

- Strengthened involvement of stakeholder groups (Africa; Asia-Pacific)

- Training in key skills, and educational strategies (Asia-Pacific; Arab States)

- Strengthened awareness raising among key stakeholders (Asia-Pacific)

C.   Discussion and possible options for consideration

53.   It is clear that a great deal can be learnt about national challenges, needs and priorities from national reports to MEAs. There is a section on capacity building in the CITES biennial report format, the guidelines for the CBD's 4th National Report suggest that Parties may want to include information on "future priorities and capacity-building needs", and the Ramsar Convention includes questions relating to Goal 4 in its national reports addressing 'implementation capacity'. That being said, capacity building needs are frequently articulated at a high-level, or as broad generic statements, and are often lacking in detail. For example, many reports reviewed highlighted a general lack of capacity in terms of financial and human resources without being more explicit.

54.   The generic nature of this information is to a large extent due to the fact that a number of the national reporting templates and guidelines do not explicitly ask countries to identify 'capacity building needs', as was indicated earlier. As a result much of this information has been inferred from challenges, constraints, requirements and priorities for

action listed by countries in their reports. While this provides a useful baseline for identifying capacity building needs, it may not generate the same level of detail or priorities as it might do if countries were asked directly to provide information on their capacity building needs.

55. In addition, this information was collected by the individual MEAs for their own purposes, and countries were presumably responding in the context of their implementation of those particular MEAs. As a result, during this review it was not always clear how to link the capacity building needs identified in national reports to the four agreed IPBES functions, although all were relevant in one way or another to improving the science-policy interface at the national level. Nonetheless this review does provide a valuable indication of likely priority needs.

56 The UNDP definition and approach to capacity development recognises three levels that need to be addressed, the enabling environment, the organisational level, and the individual level.[18] These levels of capacity form an integrated system, with all three needing to be addressed to achieve effective progress and improvements in capacity at the national level. These three levels are reflected as follows in the various types of capacity building need identified in the national reports:

Level	Capacity building needs from national reports to MEAs
Enabling environment level	• Legislation and policy development, implementation, and enforcement • Integrated management and improved coordination across government and stakeholders at the national level • Regional/international cooperation (e.g. knowledge exchange, technology transfer) • Education and public awareness raising • Public participation and community engagement in decision-making
Organisational level	• Centralized data management systems, clearing house mechanisms, information sharing networks and inventories • Data to track and monitor status and trends • Monitoring and assessment activities
Individual level	• Training and skills development (e.g. on-ground conservation activities; conservation management activities; funding applications)

57. There is clearly scope for IPBES to address a range of the capacity building needs identified from national reports to MEAs in this brief review. For example, IPBES could make a significant difference to the enabling environment (where the bulk of the identified needs seem to lie) through promoting and/or facilitating regional and international cooperation. Similarly it is anticipated that, like the Intergovernmental Panel on Climate Change, the Platform will be a high profile organisation, and is likely to have great scope to promote, communicate, educate and raise awareness for biodiversity and ecosystem

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[18] United Nations Development Programme (2008), Capacity Development Practice Note, available from www.undp.org/content/undp/en/home/librarypage/capacity-building/capacity-development-practice-note.html

service related issues — another area of priority for many countries in their national reports.

58.   The Platform may also have great potential to provide guidance and advice on improving data and information management and use at all levels, which will have multiple benefits in informing IPBES-led assessments, supporting national and subregional assessments, and in supporting informed decision making with respect to biodiversity and ecosystem services and implementation of biodiversity-related MEAs. The Platform may also have a role in further encouraging improved coordination across government and stakeholders at the national level with respect to the use of science and other knowledge in decision making, and potentially also in public participation and community engagement in decision-making.

59.   Overall, there are potentially significant opportunities for IPBES to help address capacity building needs that have been identified in national reports to the biodiversity-related MEAs. Review of the mechanisms identified earlier by submissions by Governments and other stakeholders (see Section II) suggest that if these activities are all carried out they will ultimately contribute to building capacity for implementation of MEAs.

Annex 1: Summary of previous documents and information documents

Working documents

UNEP/IPBES.MI/2/2 *Possible elements of the work programme of the platform*

o Dated 26 January 2012, and prepared for the meeting in Panama City, Panama, 16-21 April, 2012

o Particularly relevant are <u>paragraphs 35 and 36</u> which set out the context provided by the Busan outcome and the implications of capacity building as an integral component of the whole work programme.

o Potential activities 13-16 (<u>paragraphs 90-106</u>) then address: identifying and prioritizing capacity building needs; catalyzing funding for capacity building activities; increasing access to data, information and knowledge; and addressing imbalance in participation in the platform's work programme.

Information documents prepared by the secretariat

UNEP/IPBES.MI/2/INF/3 *Possible scenario for an IPBES work programme*

o Dated 22 march 2012, and prepared for the meeting in Panama City, Panama, 16-21 April, 2012

o This information document does not address capacity building as a separate issue, but identifies how the potential activities identified in UNEP/IPBES.MI/2/2 might be delivered in a manner integrated with the rest of the work programme.

UNEP/IPBES.MI/1/INF/6 *Options for implementing the capacity building function of IPBES*

o Dated 17 August 2011, and prepared for the meeting in Nairobi, Kenya, 3-7 October 2011

o This information document may be particularly helpful in identifying gaps, potential activities for addressing those gaps, and potential partnerships. It synthesizes input from previous information documents with respect to capacity building and the work programme.

UNEP/IPBES/3/INF/3 *Analysis of capacity development for biodiversity and ecosystem services*

o Dated 5 May 2011, and prepared for the meeting in Busan, Republic of Korea, 7-11 June 2010

o The aims of this information document were to: establish a common understanding and framework for capacity development; analyze achievements and gaps in the generation and use of scientific knowledge and assessments; and suggest areas of capacity development within which IPBES can provide supplementary support.

o Substantive inputs to this analysis included: a questionnaire survey on capacity development activities sent to international institutions and networks; analysis of obstacles to implementation of NBSAPs carried out by the CBD working with UNU; and review of the National Capacity Self Assessment process.

UNEP/IPBES/2/INF/1 *Gap analysis for the purpose of facilitating the discussions on how to improve and strengthen the science-policy interface on biodiversity and ecosystem services*

o Dated 19 August 2009, and prepared for the meeting in Nairobi, Kenya, 5-9 October 2009

o Capacity building is specifically addressed in section E.4 (paragraphs 221-233) and the associated annexes, with geographical differences in capacity being addressed in the sub-section in "The North-South capacity divide" (paragraphs 228-233). Particularly relevant are Annex S on NCSAs and Annex U on NBSAPs, although both are based on reviews that have since been completed.

Information documents submitted by Governments and other stakeholders

UNEP/IPBES.MI/2/INF/12 *How the Sub-Global Assessment Network and IPBES can be mutually supportive*

o Submitted by the secretariat of the SGA Network, and made available 28 March 2012 for the meeting in Panama City, Panama, 16-21 April 2012

o The SGA Network provides a common platform for practitioners involved in ecosystem assessment at all levels, and as such promotes and facilitates improved capacity in undertaking assessments and using the results. This information document identifies ways in which the SGA Network could help support implementation of the potential activities identified in UNEP/IPBES.MI/2/2.

UNEP/IPBES.MI/2/INF/14 *Biodiversity and Ecosystem Services (BES) - Net*

o Jointly submitted by UNDP, UNEP-WCMC and the Norwegian Directorate for Nature Management, and made available 5 April 2012 for the meeting in Panama City, Panama, 16-21 April 2012

o This is a concept paper intended to generate discussion on the sorts of online tools and face-to-face networking activities that support capacity development and the wide-scale sharing of experience and lessons learnt. It will be updated in the light of discussion at the meeting, but gives indications of the types of activities that might be found useful.

UNEP/IPBES.MI/1/INF/10 *Final report of the international expert meeting on IPBES and capacity building, co-convened by the Governments of Norway and Brazil, and held in Trondheim, Norway, on 25-27 may 2011*

o Jointly submitted by the Governments of Brazil and Norway, and made available 21 July 2011 for the meeting in Nairobi, Kenya, 3-7 October 2011

o This is the report of an expert meeting explicitly set up to discuss capacity building in the context of IPBES. While all is relevant, particularly useful might be sub-sections 2.5, 3.3-3.5, 4.3-4.6 and any associated material in annexes.

o The expert meeting was informed by a scoping paper prepared by UNEP-WCMC that can be accessed directly at www.dirnat.no/content/500041955/Working-documents. This paper substantively reviews the issue of capacity building in the context of IPBES, and includes a number of substantive annexes.

o The presentations made at the expert meeting are also available, and can be accessed directly at www.dirnat.no/content/500042011/Presentations. Key points from the presentations are included in the meeting report.

UNEP/IPBES/2/INF/6 *Capacity building in an IPBES*

o Submitted by Group of Latin American and Caribbean States (GRULAC), and made available 7 October 2011 for the meeting in Nairobi, Kenya, 7 October 2009

o This information document identifies what GRULAC proposed in 2009 as the capacity building objectives for IPBES, and the proposed mechanisms for achieving these objectives.

Annex 2: Possible principles for guiding IPBES capacity building

The IPBES plenary may want to articulate principles that might guide capacity building under the Platform. The following principles have emerged from the Busan outcome, the Nairobi and Panama plenary meetings and the Trondheim expert meeting on capacity building held in May 2011:

o **Capacity building is an active process:** it can be seen in broad terms as the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time. It is therefore not a "top-down" process of skills or knowledge transfer but involves active engagement by people in shaping their own lives.

o **Capacity building is a cyclical process**: for capacity building interventions to be and remain effective, their designers typically need to engage partners and stakeholders, work with them to assess needs, develop strategies, implement interventions based on these strategies, evaluate the outcomes, and then engage once again on what has been learnt and how the strategies can be adapted and improved – in a continuous cycle.

o **Capacity building occurs at multiple scales**: capacity building can only be truly transformational if it operates at three different levels: working with individuals, institutions or organizations, and entire societies or enabling environments; and facilitating interaction between these three levels to bring about meaningful and sustainable change.

o **Capacity building must be demand-driven**: in the context of IPBES it is important that scientists, policy-makers and practitioners help to shape the interventions to meet their own needs in order to operate effectively in this interface. This includes an important focus on the needs of developing countries, but is not limited to these countries, since all stakeholders need to develop their capacity and can learn from each other.

o **Capacity building must be sustainable**: one-off interventions with external funding can be very important to unlock barriers, to demonstrate effectiveness and to act as catalysts for change, but it is critical that interventions be embedded within, for example, national Governments, from the start, so that they can be locally driven and owned, and can impact on resource allocation decisions, enabling interventions to be sustained in the long term.

o **Capacity building must be targeted and focused**: in the context of IPBES any new capacity building interventions need to take account of what is already being done and identify very specific gaps that need to be filled. These gaps should be identified strategically and be explicitly linked to the work streams and emerging priority themes of IPBES, so as to avoid duplication and maximize the effective use of any new resources generated.

o **Capacity building must be measurable**: the results of capacity building are highly complex and cannot always be measured easily with simple metrics, but it is nevertheless crucial to be able to evaluate the impact, effectiveness and cost-effectiveness of capacity building interventions, which therefore need to be designed with measurable outcomes in mind and to be accompanied by a clear systems for monitoring and evaluation.

o **Capacity building is collaborative and cumulative**: no individual intervention can hope to succeed on its own. New intervention for IPBES must build on and interface with the wide range of capacity building initiatives and mechanisms already operating in the biodiversity and ecosystem services sphere, involving a large number of specialized role-players, finding a way to draw them all together in relation to IPBES and maximize synergy through a 'network of networks'.

o **Capacity building must draw on a range of knowledge types**: in building capacity to translate science into effective policy and implementation, and to ensure that research is informed by policy and implementation needs, it is necessary to draw on traditional and diverse knowledge systems, on social as well as natural sciences, on "grey" literature, and on the documented experience of the broadest possible range of stakeholders. The need for prior and informed consent in relation to the use of traditional knowledge will always need to be respected.

Annex 3: The range of capacity building needs discussed in previous IPBES meetings

This table is taken from Annex 5 of the full meeting report for the International Expert Meeting on IPBES and Capacity Building that took place in Trondheim, Norway 25-27 May 2011. The full report can be found at www.dirnat.no/expertmeeting. It is essentially an annotated list of all capacity building needs identified in earlier IPBES discussions and documents (see Annex 1), originally drafted by the UNEP World Conservation Monitoring Centre.

Cluster	Identified needs
Institutional culture Ensuring that governance and funding arrangements recognise and respond to the importance of ensuring the effective and transparent use of science in decision making	Planning and strategy development: Create an expectation and requirement that scientific expertise and knowledge is employed in the processes that lead to the development of strategies, plans and policies
	Decision making processes: Create an expectation and requirement that decision making processes seek out and take appropriate account of available information and knowledge
	Resource allocation: Move towards a situation where resource allocation processes and decisions bear in mind scientific findings, prioritizations and needs
	Regulatory frameworks: Create an expectation and requirement that appropriate scientific expertise and knowledge is employed in processes leading to amendment, development and enactment of laws/regulations
	Monitoring and evaluation systems: Ensure that performance assessment involves scientists and incorporates scientific findings as it seeks to inform policy processes of the impacts of previous decisions and policies
	Institutional setup: Ensure that research institutions have the mandates, culture and budgets necessary for delivering the research and information necessary to support policy processes
	Partnerships: Develop a culture of building partnerships, developing co-management mechanisms, and increasing cooperation in tackling issues of common interest in the science-policy arena
	Funding: Build institutional capacity to raise funds (from government, business and elsewhere) for research projects and programmes, for individual and institutional capacity building, and for knowledge production
	Scoping legal, political and diplomatic issues: Build capacity to scope and analyse legal, political and diplomatic issues that may influence decisions, so as to recognise their potential impact, and the need to understand it better
Education needs Ensure the necessary future manpower	Education: Consolidate education in science and technology from primary to tertiary, to nurture talents and produce the number of graduates needed by institutions and the community at large
	Build an adequate scientific cadre: Build a sufficient level of individual scientific manpower to document and supply data, knowledge and information on biodiversity and natural resources, and to communicate it effectively
	Awareness amongst decision makers: Increase the awareness amongst decision makers on the relevance of science and the need to use the knowledge derived from science more effectively in decision making
	Public awareness: Increase the awareness of the public on the need for policy setting and decision making to take account of all available information and knowledge, including that derived from scientific and other sources

Cluster	Identified needs
Access to existing knowledge Consolidating and expanding access to data, information and knowledge on biodiversity and ecosystem services	Information on who's who: Drawing on existing networks, create/maintain searchable databases of scientists, research groups and institutions, and research projects, so as to increase recognition of who is working on what
	Access to publications: Create/maintain online portals providing free access to international scientific journals and other relevant publications, and open access to all countries of national scientific journals published elsewhere
	Access to "grey" literature: Create/maintain open-access repositories of relevant non-published literature, including theses, dissertations, government reports and so on, with appropriate search tools
	Access to data: Promote the wider development of open-access databases which deliver geo-referenced data on biodiversity and ecosystems, and associated socio-economic data, in a manner which supports decision making and policy setting
	Repatriation of data: Ensure that all countries have full and complete access to data, information and knowledge collected in their countries, and to the results of research conducted in their countries
	Use of appropriate languages: Increase access to data, information and knowledge through use of more languages in publishing data, information and knowledge, and in the tools that deliver it
Building the knowledge base Capacity for effective production of scientific knowledge relevant to policy needs	Information management: Build adequate data and knowledge management capacities, including coordination mechanisms, networks, and identified roles and responsibilities, so as to support planning and management at all levels
	Interdisciplinary research: Actively encourage and build capacity in applied interdisciplinary research involving social, economic and natural sciences, in order to better inform the brokering of knowledge, and decision making
	Incorporating indigenous and local knowledge: Strengthen capacity to integrate scientific research and indigenous and local knowledge in appropriate ways for informing policy development and decision making
	Assessments: Build capacity in all aspects of planning and implementing assessments, ensuring full stakeholder involvement, and improved understanding of the relevance of biodiversity and ecosystem services
	Monitoring: Build capacity to monitor relevant aspects of biodiversity and ecosystem services and their value, so as to better understand change over time and the impacts of different drivers and pressures
	Indicators: Increase ability to develop and use metrics, indicators and indices that are meaningful for monitoring achievement of national targets, both individually and in meaningful combinations.
	Modelling: Access to modelling tools to analyse the status, trends and values of biodiversity and ecosystem services, with the consideration of drivers of biodiversity use and loss
	Early warning: Establishment of horizon scanning and early warning systems, to inform decision making and policy development processes of potential and actual environmental problems

Cluster	Identified needs
Research needs Helping to ensure that research addresses the needs of those taking management decisions, and setting policy	Identifying research gaps: Build institutional capacity in assessing research gaps (including monitoring and information gaps) in an on-going way for actual and future knowledge and information needs for effective policy-making
	Research frameworks: Create and strengthen frameworks and processes that guide and prioritize research programmes, and the funding for them, ensuring that they have clear objectives, and properly address identified research gaps
	Good practice in research: Ensure that research is carried out in a manner that ensures its credibility and legitimacy to those involved in policy and decision making processes, and that data and information is readily available to others
	Access to research infrastructure: Ensure that access to the necessary research infrastructure and technology is available, including access to journals, computing, field equipment and technologies such as bar coding
	Stakeholder coordination: Establish clear coordination mechanisms between knowledge producers and knowledge users (including in the private sector) in order to better support policy-making processes
Communication of knowledge Capacity for effective communication of knowledge to decision makers and decision making processes, and to the public at large	Create capacity in policymakers to grasp scientific issues: Build capacity of policy-makers to understand environmental issues and key concepts sufficient to more effectively use scientific information in their deliberations
	Improve communication skills of knowledge producers: Build capacity of knowledge producers (including those working with traditional knowledge) to communicate effectively their findings to policy makers
	Brokering knowledge: Build capacity to present clear policy alternatives, that systematically outline the implications of taking different policy options based on available knowledge, scientific understanding, and multidisciplinary scenarios
	Communication tools: Facilitate access in appropriate formats, and on appropriate timescales to the knowledge and information necessary for supporting decision making
International processes Capacity for full and effective participation in transnational and international assessment processes for the purpose of improving the science base for policy formulation at all levels	Tools, standards and methods: The development and promulgation of tools, standards and methods for carrying out assessment processes, and for using and sharing the results
	Training and workshops: These can take the form of face-to-face sessions, but can also include e-learning opportunities (for example with GEO).
	Technical support: Provision of support carrying out various aspects of assessment processes, based on standard methodologies, and experience elsewhere.
	Engaging stakeholders: Broadening stakeholder involvement and understanding with respect to the importance and value of increasing the knowledge base on which decisions are made and policy set
	Fellowship programmes: Programmes to allow professionals from developing countries to work for international assessment secretariats, and alongside professionals elsewhere, increasing their own experience
	Facilitation of meeting participation: Finding resources to ensure that ecosystem assessment practitioners from every country are able to participate fully in relevant international meetings and workshops
	Prioritizing participation: Finding and prioritizing resources to ensure that ecosystem assessment practitioners in every country have sufficient time available to fully participate at national and international levels

Cluster	Identified needs
Networks Establish the necessary networks to promote and facilitate improvements in the science-policy interface, and the sharing of knowledge and experience	Strengthen and where necessary build practitioner networks: For sharing experience between practitioners, and for sharing knowledge, fostering peer-to-peer support and learning, and identifying opportunities for collaboration
	Build cross-disciplinary and cross-sector networks: For sharing experience of sharing information and knowledge across disciplines and sectors, and combining information and knowledge and using it effectively
	Cooperation between countries: Promote cooperation between and among countries, including North-South and South-South cooperation, through networks, exchange and fellowship schemes, and the like
	International network of IPBES focal points: Develop an international network of IPBES focal points in partnership with existing initiatives, including focal points in all regions and major sub-regions to coordinate and provide technical support
	National IPBES focal points and networks: Establish national IPBES focal points in all countries to support institutional capacity building on science-policy interface at the national level, and to support the elaboration of national assessments
Coordination Establish the necessary processes and mechanisms for improving the coordination and delivery of capacity building activities	Coordinate donors: Ensure that donors work together as effectively as possible in seeking ways to coordinate their activities with respect to support for building the science-policy interface
	Coordinate agencies: Ensure that there is effective collaborating between those institutions from outside a country involved in capacity building, so as to avoid overlaps, and identify gaps and potential for synergies
	Coordinate practitioners: Ensure that the international experts involved in building capacity within countries are effectively coordinated so that they are working in harmony with each other, and seeking synergies where possible

Annex 4: Summary information on the national reports to MEAs reviewed

Convention on Biological Diversity (CBD)	
Number of Parties	193 (as at October 2012)
Parties reporting	172
Reports reviewed	18 (representing 10% of reports submitted and 9% of Parties)
Countries for which national reports were reviewed	**African Group:** Namibia; São Tomé and Principe. **Asia-Pacific Group:** Cambodia; Malaysia; Kazakhstan; Pakistan; Jordan; Yemen; Bhutan; India; Papua New Guinea; Samoa; Fiji. **Eastern Europe:** Moldova; Slovakia. **Latin American and Caribbean Group:** Bahamas; Brazil.
General characteristics of the report(s) used. and any difficulties encountered	A selection of national reports from the 4th reporting cycle to the CBD were reviewed. The format for the 4th national report is narrative-based, and seeks information primarily on national implementation of the CBD. Most national reports are very comprehensive narratives of progress and gaps made with respect to national implementation of the Convention – many exceed 100 pages in length. The main difficulties encountered were that: • Capacity building needs are not clearly outlined and articulated in many CBD national reports. Needs or priorities are embedded in text. The process of distilling capacity building needs from national reports is therefore very time consuming. • Difficulties with this task were that most reports did not include the term 'capacity building needs' directly. Capacity building needs have therefore been inferred from challenges, constraints, requirements and priorities for action listed in the reports. • Many reports describe a general lack of capacity in terms of financial and human resources without being more explicit. This makes it difficult to understand capacity building needs beyond a superficial level in some countries.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	
Number of Parties	175 (as at October 2012)
Parties reporting	54 (biennial reports)
Reports reviewed	23 (representing 42% of reports submitted and 13% of Parties)
Countries	**African Group:** Benin; Liberia; Swaziland. **Asia-Pacific Group:** China; Cyprus; Kuwait; Malaysia; Qatar; Thailand; Turkey; United Arab Emirates; Viet Nam. **Eastern Europe:** Armenia; Azerbaijan; Belarus; Bulgaria; Croatia; Estonia; Georgia; **Latin American and Caribbean Group:** Antigua and Barbuda; Brazil; Colombia; Costa Rica.
General characteristics of the report(s) used. and any difficulties encountered	A selection of CITES biennial reports were considered for this review. CITES biennial reports require information on national implementation of the Convention, including progress in the development and application of laws and regulations, administrative procedures, economic and social incentives and wildlife trade policies. Such reports may contain summaries of national compliance and enforcement efforts. The main difficulties encountered were that: • The need for precise types of capacity building is not specifically articulated in the reporting formats for CITES, rather Parties are mostly required to report on capacity building that has been undertaken and whether any implementation difficulties have been encountered. • The relatively low proportion of Parties that regularly submit biennial reports has meant that sourcing substantive information from national reports to CITES is difficult. This could, however, indicate that a different approach is needed to the preparation and submission of biennial reports. Recommendations in this regard will be considered at CITES CoP16 (Bangkok, March 2013).

	• It is also clear from COP decisions that there is a need for capacity support *inter alia* to implement scientific aspects of the Convention; however, this is not articulated in the national reports as the questions do not ask specifically about needs for scientific support.

Convention on Migratory Species (CMS)	
Number of Parties	117 (as at October 2012)
Parties reporting	68
Reports reviewed	46 (representing 67% of reports submitted and 39% of Parties)
Countries	**African Group:** Algeria; Angola; Benin; Burkina Faso; Chad; Congo; Côte d'Ivoire; Ethiopia; Ghana; Guinea; Kenya; Madagascar; Mali; Tanzania; Togo; Mauritania; Morocco; Senegal; South Africa. **Asia-Pacific Group:** Cyprus; India; Islamic Republic of Iran; Mongolia; Pakistan; Saudi Arabia; Sri Lanka. **Eastern Europe:** Albania; Belarus; Croatia; Hungary; the Former Yugoslav Republic of Macedonia; Montenegro; Serbia; Tajikistan; Ukraine. **Western European and Others Group:** Belgium; France; Switzerland. **Latin American and Caribbean Group:** Argentina; Costa Rica; Chile; Ecuador; Honduras; Panama; Paraguay; Uruguay.
General characteristics of the report(s) used. and any difficulties encountered	The CMS national report format provides an opportunity for Parties to indicate their needs with respect to capacity building for research and monitoring in particular. An analysis and synthesis of national reports was prepared for CMS COP 10 in UNEP/CMS/CONF.10.11 and its annex, and in the present report the capacity building needs in different areas has been deduced this analysis. The main difficulties encountered were that: • Only 60% of Parties submitted national reports in the last reporting cycle. A large number of African Parties did not submit a national report; therefore, key capacity building needs for the Africa region may not necessarily be reflected in the findings. • Lack of submission of national reports may also indicate a need for capacity building support with assessment and monitoring as well as with other aspects of implementation of the Convention.

African-Eurasian Waterbird Agreement (AEWA)	
Number of Parties	66 (as at October 2012)
Parties reporting	43
Reports reviewed	16 (representing 37% of reports submitted and 24% of Parties)
Countries	**African Group:** Algeria; Ethiopia; Egypt; Senegal; Uganda. **Asia-Pacific Group:** Syria. **Eastern Europe:** Albania; Croatia; Latvia; Georgia; Former Yugoslav Republic of Macedonia; Romania; Czech Republic. **Western European and Others Group:** Belgium; Finland; Italy.
General characteristics of the report(s) used. and any difficulties encountered	The main difficulties encountered were that: • The reporting formats for AEWA do not specifically ask for Parties to identify their capacity building needs. Therefore capacity building needs have been identified from where Parties have listed key challenges, gaps and priorities in implementation of the Convention. • In addition, although the 2012 session of national reporting was regarded as being very successful because of the high proportion or Parties reporting, some 29% of Parties still did not report.

United Nations Convention to Combat Desertification (UNCCD)	
Number of Parties	192 (as at 2010 for reporting cycle)
Parties reporting	122
Reports reviewed	36 (representing 29% of reports available and 18% of Parties)
Countries	**African Group:** Algeria; Burundi; Congo; Cote d'Ivoire; Eritrea; Kenya; Madagascar; Morocco; Namibia; Sao Tome and Principe; Senegal; Zambia. **Asia-Pacific Group:** China; Iran; Lebanon; Mongolia; Nepal; Pakistan; Palau; Philippines; Sri Lanka; Tonga; Viet Nam. **Eastern Europe:** Albania. **Western European and Others Group**: Spain. **Latin American and Caribbean Group**: Argentina; Brazil; Cuba; Dominican Republic; Saint Lucia; Ecuador; El Salvador; Mexico.
General characteristics of the report(s) used. and any difficulties encountered	Capacity building needs are not directly covered by the new UNCCD online reporting template. There are only two sections of relevance to this assessment in the national reporting template: • Problems, constraints and bottlenecks currently faced by your country regarding the implementation of NAPs (report on the 2 most important only); and • For those countries not having a national monitoring system totally or partially dedicated to DLDD, identify the major difficulties experienced in the establishment process (note that this does not apply to all countries).

Ramsar Convention on Wetlands	
Number of Parties	163 (as at October 2012)
Parties reporting	144 (as at 2012)
Reports reviewed	30 (representing 20% of reports available and 18% of Parties)
Countries	**African Group:** Botswana; Cape Verde; Ghana; Kenya; Liberia; Malawi; Nigeria; Sierra Leone; Uganda; Tanzania; Zambia. **Asia-Pacific Group:** Fiji; Indonesia; Laos; Marshall Islands; Myanmar; Pakistan; Papua New Guinea; Philippines; Samoa; Thailand; Turkmenistan. **Eastern Europe:** Albania; Georgia; Moldova; Romania; Serbia; Yemen. **Latin American and Caribbean Group:** Antigua and Barbuda; Jamaica.
General characteristics of the report(s) used. and any difficulties encountered	The Ramsar reporting template is based on the strategic plan, contains a number of questions from which capacity building needs can be derived: • What have been the greatest difficulties in implementing the Convention? • What are the priorities for future implementation of the Convention? • Does the Contracting Party have any recommendations concerning implementation assistance from the Ramsar Secretariat?

World Heritage Convention	
Number of Parties	190 (as at October 2012)
Parties reporting	
Reports reviewed	Approximately 103 countries (54% of all States Parties) are covered from the Africa Region, Asia and the Pacific, and the Arab States in the following reports: • Report on the Second Cycle of Periodic Reporting in the Africa Region; • Report on the Second Cycle of Periodic Reporting for Asia and the Pacific; • Report on the Second Cycle of Periodic Reporting in the Arab States.
Countries	All relevant countries from the three regions are covered
General characteristics of the report(s) used. and any difficulties encountered	The World Heritage Convention has a regional periodic reporting approach based on a six-year cycle. Data provided by countries is compiled into a regional report. The information on World Heritage capacity building needs for this task is drawn from the most recent regional reports available for the Africa Region, Asia and the Pacific, and the Arab States.

Annex 5: Capacity building needs related to IPBES identified in CBD 4th national reports

The following is copied verbatim from UNEP/CBD/COP/11/19/Add.1 *Collaboration with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*

Access to financial resources, and matching them with identified needs
- Financial and physical resources management
- Sustainable financing including new and innovative funding mechanisms

Building capacity to identify and address knowledge gaps
- Identification, prevention and management of invasive alien species
- Fire prevention and management
- Development of biodiversity indicators

Building capacity to carry out assessments at national and subregional levels
- Natural resources, socioeconomic and cultural assessment
- Management effectiveness assessment
- National ecosystems/biodiversity assessments
- Assessment of climate change adaptation options

Building capacity to develop and use policy-relevant tools and methodologies
- Tools and capacity for river basin and watershed management
- Tools and capacity for fisheries planning, management and enforcement
- Effective policies and application of impact assessment approaches (EIA and SEA)
- Policy analysis/assessment and reform
- Harmonization of sub-national environment policies
- Development and implementation of biosafety policy
- Environmental accounting
- Biodiversity/ecosystem valuation
- Systematic integration of biodiversity concerns in policies, programmes and actions of the various sectors
- Cross-sectoral coordination, planning and policy formulation and implementation to reduce conflicts and gaps

Supporting mechanisms, networks and tools
- Access to and participation in biodiversity information networks
- Enhancement of databases on natural resources managed by public institutions through training, frequent updates of equipment and contents, and systematic strengthening of institutional relations, allowing the integration of primary information sources and existing databases
- Inadequacy of information services e.g. libraries and internet service

Access to data, information and knowledge
- Establishment of ecological baselines and a long term monitoring system
- Monitoring effectiveness of NBSAP implementation
- Approaches to conserve traditional knowledge