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Biodiversity and Ecosystem Services-Net web portal: draft strategy for development and implementation

Note by secretariat

The annex to the present note sets out a draft strategy for the development and implementation of a biodiversity and ecosystem services web portal, known as "Biodiversity and Ecosystem Services-Net" (BES-Net), developed by the United Nations Development Programme with support from the Government of Norway. The annex is presented without formal editing.

Annex

BES-Net Web Portal

Draft Strategy for Development and Implementation

Fuse IQ and United Nations Development Programme
July 2013

with thanks to the Government of Norway

This document outlines a draft strategy for comment on the proposed BES-Net web portal

As the development network of the United Nations, with a presence on the ground in 177 countries and territories, the United Nations Development Programme (UNDP) was requested through the Busan Outcome of IPBES in 2010 to play a special role in developing capacity to support the Platform – integrating capacity building with assessment, knowledge generation, and policy-relevant tools and methodologies to help countries tackle science-policy questions critical to sustainable development.

Through a partnership with the Government of Norway, UNDP has collaborated with the Norwegian Environment Agency and the United Nations Environment Programme-World Conservation Monitoring Centre to convene discussions with governments and organizations involved in capacity building on the establishment of a capacity building network – to facilitate exchanges between science[1], policy and practice that lead to better decisions for biodiversity and ecosystems management. This has included discussion in side-events in Hyderabad (CBD COP-11), Jeju (IUCN World Conservation Congress), Panama and Bonn (IPBES). Support for the network's establishment was also expressed in the Informal Consultation on IPBES and Capacity Building held in Kuala Lumpur in November 2013.

The attached document, which UNDP has developed with support from the Government of Norway, and working with web development firm Fuse IQ, sets out a strategy for the development of a BES-Net web portal as the heart of the capacity network. The web portal aims to help develop individual and organizational capacity, and will be combined with face-to-face events such as regional science-policy-practice dialogues. Activities of the proposed network will be aligned with the work programme of IPBES, in order to help enable effective management of biodiversity and ecosystems worldwide, contributing to long-term human wellbeing and sustainable development.

Comments on the draft strategy from all governments and stakeholders are welcomed, and should be sent to Caroline Petersen at caroline.petersen@undp.org by 17 January 2014. Organizations with a special interest in contributing to the network and web portal are invited to hold discussions with UNDP on how such cooperation could be taken forward.

Send comments by Friday 17 January 2014 to:
Caroline Petersen
United Nations Development Programme
Email: caroline.petersen@undp.org

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[1] The term "science" is used in a broad sense to refer to a wide variety of forms of knowledge, not limited to academic natural and social science but also including local, traditional and indigenous knowledge.

Table of Contents

A. Introduction

This document sets out a draft strategy for the development and implementation of a *Biodiversity and Ecosystem Services (BES)-Net web portal. The content of the draft strategy was developed by the United Nations Development Programme (UNDP) and Fuse IQ consultants (*www.fuseiq.com*) during 2012 and 2013, and will be used as the basis of further consultation with stakeholders during 2013. The* strategy has been developed with the support and advice of the Norwegian Environment Agency[2] and the United Nations Environmental Programme-World Conservation Monitoring Centre (UNEP-WCMC), and with the financial support of the Norwegian Government.

The aim of the proposed web portal is:

To facilitate access to the work of network participants who are developing capacity in the interface between science[3], policy and practice – to support the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) and to enable effective management of biodiversity and ecosystems worldwide, implementing the three Rio Conventions and related multilateral agreements in a way that contributes to long-term human well-being and sustainable development.

The BES-Net web portal concept is a response to widespread calls for a strong emphasis in IPBES on capacity building, as reflected in the 2012 Panama Resolution to establish the Platform[4]. Capacity building is needed to improve the interface between scientist[5], policy-makers and local implementers of the three Rio Conventions and other multilateral environmental agreements (MEAs) relating to biodiversity and ecosystem services. The proposed web portal is an online tool, which, combined with face-to-face capacity building, will help ensure that best available science on pressing biodiversity and ecosystems issues globally is effectively translated into policy and implementation at global, national and sub-national levels, and that the capacity of researchers to communicate effectively with and understand the needs of policy-makers and practitioners is enhanced.

From UNDP's perspective there is a pressing need for capacity development in the science–policy interface that provides practical tools for decision-makers and practitioners to manage biodiversity and ecosystems in a way that contributes to long-term human wellbeing and sustainable development and the eradication of extreme poverty. The focus of the proposed web portal on the science, policy and practice communities and its practical orientation can help to facilitate this. Biodiversity and ecosystem management issues are covered by a vast array of websites, web portals, databases and e-learning tools currently available on the Internet[6], representative of the enormous volume of information, knowledge, spatial and other data, published and "grey" literature generated in recent decades on these issues. The intention of the BES-Net web portal is not to duplicate effort, but to provide a "one-stop shop" that harnesses the energy generated by the new IPBES Platform, and creates synergy between the efforts and online work of all participants in a capacity building network, building on the proposed approach to networking outlined in the Draft Work Programme[7].

The document also includes technical specifications and cost estimates to guide the future development, operation and maintenance of the full BES-Net web portal, and draft terms of reference for work by web developers, and will inform the development of terms of reference for future coordination staff for the web portal's operation. Annexes to the Strategy include the Terms of Reference for the website development work

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[2] An agency of the Ministry of Environment, formerly the Norwegian Directorate for Nature Management

[3] T*he term "science" is used in a broad sense to refer to a wide variety of forms of knowledge, not limited to academic natural and social science but also including local, traditional and indigenous knowledge.*

[4] Annex I-IPBES-Resolution_UNEP-IPBES.MI-2-9. This was also reflected in the 2010 Busan Outcome.

[5] *The term "scientists" is used in a broad sense to refer to all holders and generators of knowledge of a wide variety of forms, including local , traditional and indigenous knowledge.*

[6] A description of "Portal Proliferation Syndrome" is provided by the Climate and Development Knowledge Network at http://cdkn.org/2011/06/portal-proliferation-syndrome/

[7] IPBES Draft Work Programme 2014-2018, Review Draft 25th June 2013

(Annex 5). The document contains screenshots from the demonstration model of the website developed by Fuse IQ and presented to stakeholders for review at the IPBES-1 plenary, held in Bonn in January 2013, and the full model is available on request.

B. Exploring the need for capacity building networks

There has been significant international discussion during the process leading to the establishment of the *Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services (IPBES), and this is briefly summarized in Annex 1. IPBES is* an independent intergovernmental body with 111 member countries cooperating to assess the state of the planet's biodiversity, its ecosystems and the essential services they provide to society. It also highlights and explains the strong emphasis in the process on capacity building[8], as an integral component of the IPBES work programme, supporting assessment and knowledge generation and underpinning the formulation and implementation of policy, as expressed in the Panama resolution to establish the Platform. The annex also details the request for collaboration between UNEP, UNDP, FAO and UNESCO in support of IPBES, with a special role for UNDP in supporting capacity building.

During 2012 UNDP collaborated with the Norwegian Environment Agency and the UNEP-World Conservation Monitoring Centre, to consider and to consult stakeholders on ways of responding to the capacity building needs of IPBES in the science[9]-policy-implementation interface. This consultation built on the dialogue held in the May 2011 expert meeting on IPBES and capacity building hosted by the Governments of Norway and Brazil.

The proposals that emerged from these consultations were also informed by the needs expressed by the Parties to the three Rio Conventions through a series of National Capacity Self-Assessment projects supported by the Global Environment Facility from 2001 to 2008. These assessments highlighted a wide range of in-country capacity needs in relation to policy, legislation, plans, strategies, institutions, human resources, financial resources, education, training, awareness, research, networking, data, information and technology.

An initial consultation was held with governments and civil society stakeholders at the Panama plenary session of IPBES in April 2012, building on a concept note entitled "Biodiversity and Ecosystem Services (BES)–Net: A capacity building network for the interface between science, policy and implementation" (information document UNEP/IPBES.MI/2/INF/14)[10]. Following positive feedback at the side-event, UNDP, UNEP-WCMC and the then Norwegian Directorate for Nature Management co-drafted a consultative paper and submitted this to the IPBES secretariat as part of the abovementioned process of compiling stakeholder submissions on capacity building, setting out suggested principles for capacity building as outlined in Annex 2.

The consultative paper acknowledged the agreement reached by government representatives in Panama that IPBES would integrate capacity building into all relevant aspects of its work, as well as the potential for IPBES to establish national focal points and centres of excellence with specific global, regional and thematic functions relevant to the work programme, or regional hubs (not yet decided upon). The paper identified seven areas

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[8] It is acknowledged that many stakeholders prefer the term "capacity development" to "capacity building" as it is sometimes argued that the former term implies a greater degree of agency and pre-existing capacity by those whose capacity is growing through the process. The term "capacity building" has, however, been used throughout the IPBES process, and is used in this document, with the understanding that it implies a process of building on and developing already existing capacity.

[9] T*he term "science" is used in a broad sense to refer to a wide variety of forms of knowledge, not limited to academic natural and social science but also including local, traditional and indigenous knowledge.*

[10] This event took place on 17 April during the "Plenary meeting to determine modalities and institutional arrangements for IPBES",16-21 April 2012 in Panama City, and was attended by 60 people, representing a range of developed and developing country Governments, civil society stakeholders, other UN organizations and Convention / MEA secretariats.

where gaps exist for capacity building, and suggested addressing these through a networked approach that strengthens the connectivity between existing institutions involved in this work.

Networking could be facilitated through the establishment of a web-portal and the tracking of face-to-face activities through a network made up of all the existing capacity building programmes of the biodiversity and ecosystem-related Conventions and MEAs, particularly the Clearing House Mechanism of the Convention on Biological Diversity, the CBD's work to support NBSAPs, the capacity building work of UN agencies FAO, UNESCO, UNEP and UNDP, the World Bank and GEF, the commissions and specialist groups of IUCN, the Sub-Global Assessment Network coordinated by UNEP-WCMC and The Cropper Foundation, the GEO-BON and GBIF networks, the Biodiversity Indicators Partnership, the work of the many community partners of the Equator Initiative and the UNDP-managed Small Grants Programme, and many other related initiatives.

The paper proposed seven areas of potential activity, applying this networked approach to:

1. Explore a strategy and technical solution for a moderated Biodiversity and Ecosystems Network (BES-Net) **web portal** which is linked to www.ipbes.net and partner websites

2. Explore the modalities of a **matchmaking facility** between users of capacity building inputs and providers of such inputs

3. Undertake **cooperation projects** in developing countries addressing identified and prioritized science-policy capacity needs

4. Hold regional science-policy-practice **dialogue events** on a priority theme for IPBES facilitated annually

5. Hold national and sub-national **training workshops** on use of tools and methodologies and to support IPBES-led assessments

6. Facilitate peer-to-peer **exchange visits** in relation to best practice in implementing scientific research findings and policy at local scale

7. Establish a **fellowship programme** for developing country experts participating in IPBES assessments, development of policy support tools and knowledge generation deliverables.

This document focuses on the first of these seven areas of activity, to "explore a strategy and technical solution for a moderated Biodiversity and Ecosystems Network (BES-Net) web portal". UNDP has received initial support from the Government of Norway to make possible the development of this strategy, and a demonstration model for a BES-Net web portal. As the UN's development network, UNDP believes there is a pressing need for capacity development in the science–policy interface that provides practical tools for decision-makers and practitioners to manage biodiversity and ecosystems in a way that contributes to sustainable development and the eradication of extreme poverty. UNDP is actively engaging with other network participants and potential donors who may wish to support the development of a full web portal, in consultation with the structures of IPBES and the range of potential network participants.

The idea of the BES-Net web portal was presented to governments and organizational stakeholders at three further side-events – at the World Conservation Congress of IUCN in Jeju, Korea in September 2012, at the Conference of the Parties to the CBD in Hyderabad, India in October 2012, and at IPBES-1 in Bonn in January 2013. In Bonn, a first demonstration model of the portal was presented. There was support expressed for the idea in all these side-events, and general agreement at the event in Bonn that an online platform was a valuable approach for supporting capacity building, linking the efforts of a range of different organizations, programmes, websites and databases, and providing a gateway to these in the context of IPBES.

Participants highlighted a wide range of activities that their governments or organizations are already undertaking to support capacity building that are directly relevant to IPBES, confirming the need for increased coordination and collaboration. There was overall support for creating a network of interested governments and organizations who could strategize collaboratively on capacity building in the IPBES context, with the BES-Net web portal as a networking and potentially also a matchmaking mechanism for matching needs and

opportunities[11]. It was recognized that network participants would in parallel continue to undertake and resource their own capacity building activities individually. Participants also recognized the need to ensure close links between the proposed activities and the IPBES work programme, actively supporting any capacity building activities developed as part of the core work programme of IPBES.

The issue of matchmaking in relation to the proposed web portal is not addressed directly in this draft strategy, as it will be a key issue for discussion at a consultation on IPBES and capacity building that is expected to take place in November 2013. Such a facility is being considered as one means for addressing the requirement placed on IPBES to provide and call for financial and other support for priority capacity building needs. It is hoped that the meeting will also provide further opportunity to discuss the web portal and this draft strategy. The Norwegian Environment Agency will be supporting the workshop, to be hosted by the Government of Malaysia, and led by the Chair of IPBES, Prof. Abdul Hamid Zakri).

A number of points were made during the Bonn side-event discussions on the importance of asking the right questions to guide scientific research and tool development, and building capacity to identify these questions. The importance of promoting interdisciplinarity was also stressed, including cooperation between natural and social sciences and with traditional knowledge. The issue of uneven Internet access was raised, and it was stressed that a web portal would need to be designed for low bandwidth users, and be complemented by face-to-face activities, especially for communities. It was agreed that the issue of translation into UN languages would also be considered. These issues are all addressed in Section C.

C. Strategy for the BES-Net web portal

This section forms the main body of this Strategy document and outlines the objectives of the proposed web portal, issues of content and quality control, proposed means of involvement by stakeholders, and the relationship of the BES-Net web portal to other websites, including the official IPBES site www.ipbes.net. It also explains the three user groups in more detail, their roles and needs in communicating in the interface between science, policy and practice. It discusses tracking and evaluation, outlines options on a number of technical variables, and summarizes the proposed services and features for the web portal.

The web portal concept is designed to complement the face-to-face activities of the network of stakeholders that contribute to building capacity in the interface between science policy and practice, as well as any specific capacity building activities that may be carried out by the structures of IPBES in future. The limitations of web-based approaches, given the unequal spread of global access to Internet-based technology, are acknowledged. The website will be designed to accommodate users with low bandwith, and will be designed to display on a mobile phone for those who have telephonic and not computer-based Internet access. At the same time it will be critical to continue to develop and distribute print-based media and hold face-to-face events, for example, peer learning exchanges, to cater for those without Internet access.

1. Unique value proposition

At the core of the proposed Biodiversity and Ecosystems Services (BES)-Net network of participants actively involved in building capacity in the interface between science, policy and practice, lies the online manifestation of this network, the BES-Net web portal.

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[11] Alternatively, this may be dealt with separately. The draft IPBES Work Programme of 25 June 2013 in Deliverable 1a) paragraph 18 c) mentions the possibility of IPBES itself "establishing a 'matchmaking' facility in the form of an on-line tool which would maintain a catalogue of needs and a catalogue of offers to provide capacity building and assist those with priority capacity needs to get access to available technical and financial resources;

The unique value proposition of the web portal is its ability to help bridge the divide between the three user communities of science[12], policy and practice (defined in more detail below), by facilitating the sharing of existing knowledge between them and by producing new tools to make this knowledge more accessible, on a demand basis from users of the portal. The emphasis will be on developing the capacity of those involved in policy-making and implementation, and the services offered by the portal staff will include facilitating the translation of scientific research findings into meaningful guidance for policy and implementation, helping users answer queries and find information they require, and channelling the applied research needs of practitioners and policy-makers back to knowledge producers.
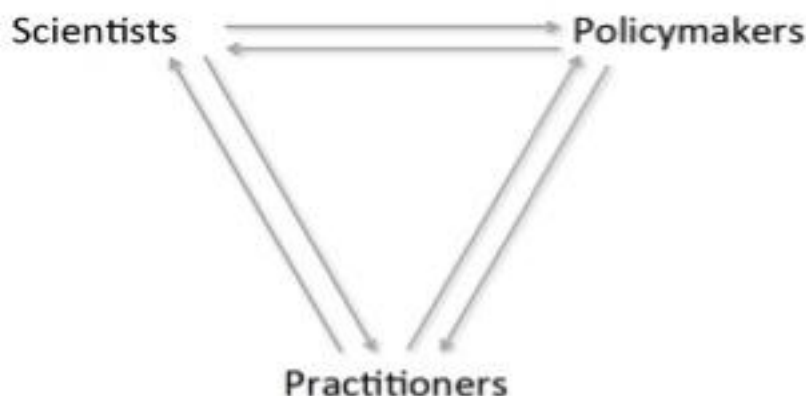

Figure 1: The three major user groups and their interrelationships

*Policy-makers and practitioners will thus use b*oth new and existing *tools made accessible through the web portal to enhance their own capacity to incorporate science into their work. Scientists and other knowledge holders will use web-based tools to enhance their ability to communicate effectively with policy-makers and practitioners. It is important to note that the words "science" and "scientists" are used in a broad sense to refer to all holders and generators of knowledge of a wide variety of forms, including local, traditional and indigenous knowledge. Members of the three user groups can use the web portal to share material within these groups and with other groups, including specific material at they have found useful in bridging the divide, in the form of documents, publications, photographs and video clips.*

2. Proposed objectives

The aim of the proposed portal is to facilitate access to the work of network participants who are developing capacity in the interface between science[13], policy and practice – to support the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) and to enable effective management of biodiversity and ecosystems worldwide, implementing the three Rio Conventions and related multilateral agreements in a way that contributes to long-term human well-being and sustainable development.

The portal will be an online capacity building tool that complements and is complemented by face-to-face activities by network participants. The portal will facilitate access to participants' sites and information, and will enable "live" information and knowledge exchange between the three key IPBES communities: 1) scientists and other knowledge holders, 2) policy-makers at various levels, and 3) those involved in

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[12] T*he term "science" is used in a broad sense to refer to a wide variety of forms of knowledge, not limited to academic natural and social science but also including local, traditional and indigenous knowledge*

[13] T*he term "science" is used in a broad sense to refer to a wide variety of forms of knowledge, not limited to academic natural and social science but also including local, traditional and indigenous knowledge.*

implementation of biodiversity and ecosystem services work on the ground[14] – enabling them to develop their own capacity in the process.

The proposed objectives of the web portal can be summarized as follows:

1. To provide **support to the work of the IPBES Platform** in building Member states' and other stakeholders' capacity to generate knowledge, contribute to assessments, and develop and use policy support tools and methodologies;

2. To act as an **online vehicle for the BES-Net network** of participants actively involved in building capacity in the interface between science, policy and practice related to biodiversity and ecosystem services;

3. To **build the capacity of users** from the science, policy and practice communities to communicate their needs and share their knowledge more effectively within and between these communities, building new communities of practice;

4. To facilitate **access by network participants** to each other's information, data, knowledge, publications, assessments, policy-relevant tools and methodologies, as well as mutual capacity building opportunities, and to fill specific knowledge gaps; and

5. To promote **individual learning** through a customized user interface that provides easy access to the above tools in thematic areas identified as priorities by individual users and through the development of and access to electronic-learning modules in key thematic areas.

3. Content and themes

A number of content themes will serve as one major entry route into the web portal, with a user clicking directly onto a theme, and being able to access a range of content, links and features in relation to that theme.

For example, a user entering the website via the theme of Resilience would be able to access some pages of basic content on science-policy-implementation issues around social-ecological resilience, including key areas of debate in relation to resilience and sustainable development, links to the websites of key partners working on resilience issues including policy-relevant tools and methodologies available there, a roster of experts on resilience, a library of articles, summaries of traditional knowledge available on resilience, and other resources (including any custom-developed through the portal, such as policy briefs), and links to online e-learning modules on resilience.

Creating links for users to take online e-learning modules shows one of the ways in which the portal addresses its fifth objective:

Objective 5: To promote **individual learning** through a customized user interface that provides easy access to the above tools in thematic areas identified as priorities by individual users and through the development of and access to electronic-learning modules in key thematic areas

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[14] This includes *including local communities, indigenous peoples, community-based organisations, non-governmental organizations, local governments, UN organizations and others involved in implementation of biodiversity and ecosystem.*

In addition to the above customized content and links, the user interested in Resilience could access a set of interactive *features, with material tagged for that theme through the website's integrated taxonomy (see Annex 4 on Technical variables). The interactive features per theme (see Section 11 for more detail on each feature) will be:*

- Share New Findings
- Add a Video to Bridge the Gap
- Survey Practitioners
- Connect with Policy-Makers
- Search Policy Briefs
- Share a Policy Support Tool
- Ask an Expert
- Identify a Knowledge Gap
- Search Document Library
- Request a Policy Brief

It is important that the portal be guided by the priorities and needs of the CBD, UNCCD and UNFCCC, as well as other key Multilateral Environmental Agreements, including the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); the Convention on Wetlands of International Importance (Ramsar Convention), the Convention on Conservation of Migratory Species, the World Heritage Convention and the International Treaty on Plant Genetic Resources for Food and Agriculture, so that it can directly address its aim to help bridge the gaps between science, policy and practice in the implementation of the three Rio Conventions and related multilateral agreements.

The themes will be selected in consultation with stakeholders to contribute to pressing priorities and debates, helping to improve the management of biodiversity and ecosystems, guided by these agreements. *It is proposed that t*he BES-Net web portal operate *from 2014-2020, during the period of implementation of the CBD's Strategic Plan and the Aichi Biodiversity Targets (see Annex 3), and working towards the UNCCD's 2020 Target of Zero Net Land Degradation, which aims to* secure the contribution of our planet's land and soil to sustainable development, including food security and poverty eradication.

The website could initially be populated with a relatively thin layer of content across a number of priority themes. Further development of deeper layers of content could follow a modular approach, as partners come on board with resources to develop content in key areas of interest to them, and as topics are identified by Parties to IPBES for collaborative work, for example through global and sub-global assessments. Indicative examples of areas that may warrant thematic assessments were identified in a 2012 document on the IPBES work programme as including, for example, "status and trends of pollination services; the potential environmental consequences of bio-energy; land tenure, food security and biodiversity; best practice restoration of ecosystem services; the environmental impacts of new and emerging technologies; the values of ecosystem services in drylands; or the scientific underpinning for the role of protected areas in meeting national development and biodiversity conservation targets".[15]

Following a more recent consultation process during the intersessional process between IPBES-1 and IPBES-2, the themes will be reconsidered in the light of the prioritization of requests made by governments and the inputs and suggestions of other stakeholders, once this is available.

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[15] See para 62 of "Possible elements of the work programme of the platform" UNEP/IPBES/MI/2/2

Proposed themes for development for the web portal, based on interest expressed by stakeholders thus far, include:

1. **Food Security:** Pollination, soil and water services underpinning agriculture

2. **Traditional Knowledge**: Access and benefit sharing for genetic resources, knowledge on ecosystem and wildlife management, sustainable use, and adaptation to climate change

3. **Restoration**: Best practice in restoring and rehabilitating ecosystem function and structure: wetlands, grasslands, drylands, mangroves, corals

4. **Resilience**: Regime shifts and tipping points from local to global scales, social-ecological resilience of communities

5. **Protected Areas**: Scientific underpinning for role of PAs in meeting national development and biodiversity conservation targets

6. **Drylands:** Biodiversity conservation, ecosystem services and land use in areas affected by desertification, land degradation and drought

7. **Ecosystem-based Adaptation:** The evidence base for the effectiveness and cost-effectiveness of nature-based approaches as part of broader strategies for adapting to climate change.

This ties in with Objective 3 of the IPBES Draft Work Programme 2014-2018 (Review Draft 25th June 2013) on how to "Strengthen the knowledge-policy interface with regards to thematic and methodological issues" which includes, in addition to a focus on valuation, the following potential assessment themes:

- Thematic assessment of **degradation and restoration of land and freshwater systems and/or biodiversity and agriculture** by March 2016
- Thematic fast-track assessment on **pollination and its impact on food security** by March 2015
- Methodological fast-track assessment on **scenarios of indirect drivers and models of the impact on global change** by March 2015.

Requests have been made by stakeholders in some of the consultative events on the BES-Net web portal for content structured around particular areas of implementation, such as policy and planning, valuation or finance. Because there are many other websites organized in this way, however, it is proposed in this strategy that the BES-Net web portal rather be constructed around themes or areas of subject matter in which there are obvious science-policy or policy-implementation questions. Areas of implementation mentioned above can be seen as cross-cutting in all the content themes. The themes are also deliberately selected to be wider than specific ecosystem types, although a case could be made for pulling out Marine as a special theme to draw attention to it (as suggested with Drylands).

4. Quality control

The web portal will be operated and maintained by full-time staff members who are able to devote time and energy to uploading new content and links onto the site on a daily basis, in order to respond timeously to user requests and to ensure that it is always up-to-date. Research[16] indicates the critical importance of adequate staffing of virtual capacity building initiatives in order to maximize their ability to link to and influence activity on the ground and to build living, breathing communities of practice. The staff members will be guided by an advisory committee and will call on the services of a network of volunteer experts to help them ensure quality control.

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[16] Creech, H. (2011) Learning and Knowledge Sharing for Scaling-up Local Development Initiatives, Scoping paper, International Institute for Sustainable Development

Any new tools designed by the web portal staff will be put out for peer review before being served on the site, in order to maintain a high standard of quality. The spirit in which the website staff will operate will be one of critical and open inquiry, with debate and discussion between users of the portal encouraged. It will be important that summaries, guides and responses to queries generated by BES-Net staff in consultation with relevant experts are portrayed in an appropriate manner, as inputs into an ongoing debate. It would be inappropriate to portray such inputs as in any way claiming to be definitive answers, given then enormous complexity of the fields of knowledge that are likely to be touched upon. More detailed p*roposals for staffing are outlined in Section D below.*

For example, in relation to the theme of Resilience, the web portal might gather evidence, case studies and published results on the cluster of questions around the relationship between structure and function in ecosystems – whether greater species and genetic diversity contributes to the resilience of particular ecosystems to external disturbances (which are intensified by climate change), and how much structure can "afford" to be lost in a given ecosystem under particular circumstances before that ecosystem reaches a tipping point and is no longer able supply humans with the same ecosystem services as before. It would not be constructive, however, for the BES-Net web portal or its staff to appear to be taking a position on where, for example, a particular tipping point might lie, but rather to be seen to be facilitating the free flow of ideas and debate, and making the ideas of hundreds of players and experts in the field more accessible to each other.

For the demonstration model of the web portal some sample content was developed on restoration and rehabilitation of ecosystems, since this had already been identified within IPBES as an important topic, with discussion in Panama referring to "the urgent need for an in-depth assessment on ecosystem restoration" and including "best practice restoration of ecosystem services" in the list of indicative topics for thematic assessments[17].

This is an example of an area where policy-makers and practitioners need guidance – restoration can be costly and unpredictable, but is critical to meet Aichi Target 15 aiming at the restoration of at least 15 per cent of degraded ecosystems globally by 2020, contributing to climate change mitigation and adaptation and to combating desertification. The subject was discussed at the 11th Conference of the Parties to the CBD, leading to Decision X1/16[18] and the Hyderabad Call for a Concerted Effort on Ecosystem Restoration. This is also an example of a field which is highly complex and controversial, and where a web portal would need to be careful not to appear to be policy-prescriptive or claiming to have all the answers.

The BES-Net web portal will provide a set of features (see Section 11 below) in relation to all of the chosen themes, so for example, a hypothetical government official from a country in Southeast Asia needing to take a decision on investment in a programme for coral reef restoration may request from the BES-Net web portal a Policy Brief on coral reef restoration. She may indicate in her exchange with the BES-Net staff that she needs to know:

- *What evidence is there that coral reefs can effectively be restored – their structure and biological diversity, and their ability to act as fish nurseries?*
- *Given the planet's current trajectory in terms of temperature increase and ocean acidification, what does the science say about the long–term prognosis of such efforts – are they doomed to failure, or are they mitigating the risks?*
- *What do we know about the effectiveness of various techniques available for restoration of coral, including the artificial reef-building technologies? Where have they been tried, under what circumstances, and with what results?*
- *What information is available on unit costs and cost-effectiveness of various techniques?*

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[17] See paragraphs 13 and 62 of "Possible elements of the work programme of the platform" UNEP/IPBES/MI/2/2

[18] The Decision includes a major emphasis on knowledge management, including a request to the Executive Secretary of the CBD, to "facilitate, in collaboration with relevant partners, the development of a user-friendly, comprehensive web portal on ecosystem restoration, as part of the clearing-house mechanism, to facilitate access to and dissemination of documents, case studies and tools for capacity–building".

- *What published scientific literature is there on all of this, and are there accessible policy-relevant summaries and tools or guidelines?*
- *If not, how could the BES-Net staff work with an appropriate organization to develop such products (e.g. ask an expert institute to develop guidelines) , or where might it be appropriate to commission a product internally through BES-Net (e.g. staff producing a summary which is open for comment)?*

A policy brief developed in an attempt to make accessible material on these questions would not be presented as a definitive set of answers, but could in itself become the focus of ongoing debate and discussion, as network participants comment on or add to the policy brief. Overall, there needs to be a balance in the web portal between three different levels of activity – developing products internally when appropriate, linking up stakeholders with existing sources of knowledge to address queries, and linking up stakeholders with experts who might be in a position to develop new products where these are not yet available. BES-Net should not in any way appear to be policy-prescriptive towards governments or organizations.

The above example topic of restoration illustrates well how the web portal can both be integral to IPBES and serve the needs of the three Rio Conventions. The sample pages from the demonstration model shown in Figure 2 below indicate the manner in which the portal will act as a gateway to other websites and data. This provides an example of how the portal addresses its fourth objective:

Objective 4: To facilitate **access by network participants** to each other's information, data, knowledge, publications, assessments, policy-relevant tools and methodologies, as well as mutual capacity building opportunities, and to fill specific knowledge gaps

Figure 2: Sample pages from the BES-Net web portal demonstration model showing links to other sites
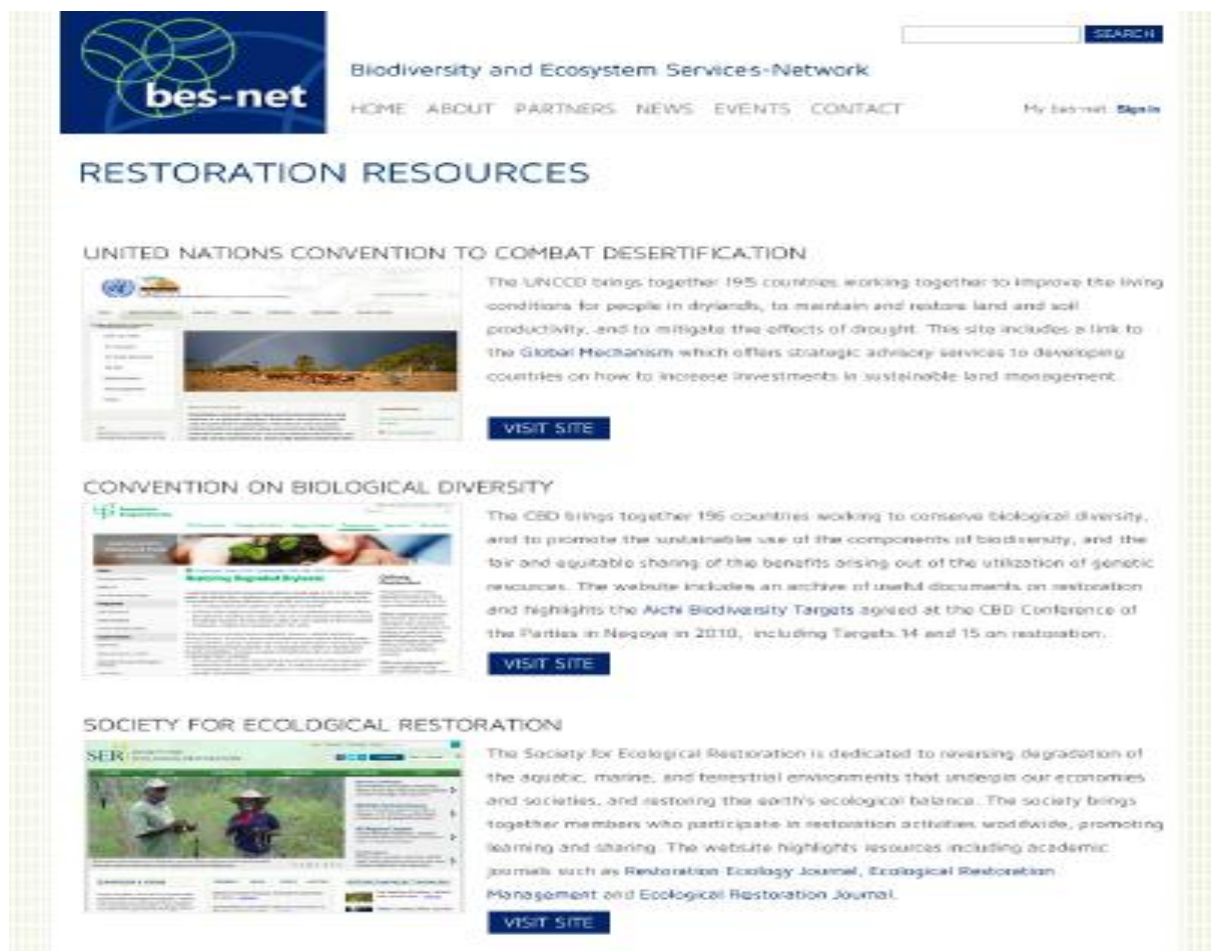
THE GLOBAL PARTNERSHIP ON FOREST LANDSCAPE RESTORATION

This website highlights the work of the Global Partnership on Forest Landscape Restoration and also the Bonn Challenge – a global effort to restore 150 million hectares of lost forests and degraded lands by 2020, launched in September 2011 by Germany, IUCN and the GPFLR as a contribution to achieving the REDD+ goal and CBD Target 15 as well as the UN framework on food security, and which gained momentum with new commitments by countries at the Rio+20 Summit and the 2012 UN Climate Talks in Doha.

VISIT SITE

INTERNATIONAL UNION FOR CONSERVATION OF NATURE

The International Union for the Conservation of Nature (IUCN), a network of governments and NGOs, has several specialized commissions bringing together practitioners worldwide, including two dealing directly with restoration – the Commission on Ecosystem Management (CEM) and the World Commission on Protected Areas (WCPA). The site highlights guidelines prepared by the WCPA's Ecological Restoration Taskforce in 2012 – Ecological Restoration for Protected Areas: Principles, Guidelines and Best Practices.

VISIT SITE

WORLD RESOURCES INSTITUTE

As a contribution to The Global Partnership on Forest and Landscape Restoration, the World Resources Institute has partnered with the University of Maryland and IUCN to map opportunities for forest and landscape restoration – where they can be found and how big they are. The website highlights the Global Map of Forest Landscape Restoration Opportunities, produced in 2011, showing 2 billion hectares of land worldwide that is suitable for restoration of various kinds.

VISIT SITE

BOTANIC GARDENS CONSERVATION INTERNATIONAL

The BGCI website highlights the Ecological Restoration Alliance, which brings together botanic gardens around the world which have signed an historic agreement, planning to restore 100 damaged, degraded or destroyed ecosystems on six continents, drawing on the proven restoration knowledge, capacity and experience of the allied botanic gardens, arboreta and seed banks.

RAMSAR CONVENTION ON WETLANDS

The Ramsar Convention brings together member countries to maintain the ecological character of their Wetlands of International Importance and to plan for the wise and sustainable use of all of the wetlands in their territories. The site highlights a briefing note from the Ramsar Scientific and Technical Review Panel on The Benefits of Wetland Restoration.

VISIT SITE

UNITED NATIONS FORUM ON FORESTS

The UNFF is an intergovernmental policy forum which brings together UN members states and specialized agencies to to promote the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end. The UNFF is one of the signatories to the Hyderabad Call for a Concerted Effort on Ecosystem Restoration which came out of the 2012 Conference of the Parties to the CBD.

VISIT SITE

UNITED NATIONS ENVIRONMENTAL PROGRAMME

UNEP undertakes restoration as part of its work on Ecosystem Management and the Green Economy – success stories are highlighted on the website, as well as a key 2010 UNEP publication:

– Dead Planet, Living Planet : Biodiversity and Ecosystem Restoration for Sustainable Development
– A Rapid Response Assessment

VISIT SITE

UNITED NATIONS DEVELOPMENT PROGRAMME

UNDP support governments in 146 countries to undertake biodiversity and ecosystems management work, including restoration of terrestrial and coastal ecosystems to maintain the flow of ecosystem services and to capture and store

5. User groups as an entry point

In addition to having the web portal content structured around themes, the second major entry point to the portal will be through identifying oneself as a user from one of the three groups, indicating which of the other user groups you would like to connect with, and then choosing a feature which enables you to make this connection, as shown below in the demonstration web pages. The user groups were defined following a series of interviews with stakeholders conducted by Fuse IQ, and each of the groups is described more fully below the demonstration pages. The intention behind structuring the website in this way is to address directly the knowledge and capacity building needs of distinct user groups who form the key target audience of the portal. This approach is not intended to exclude potential users who fall into none of these groups or more than one of these groups, or who would not wish to identify themselves in this way, but it does provide a clear structure for the site and assists in being able to develop a customized user interface (see Annex 4). It offers an alternative entry point and a possible navigation route through the website, as shown below:

STEP 1: In Figure 3a the user identifies herself as a policy-maker:

STEP 2: In Figure 3b the user considers whether she would like to connect with the Science and knowledge-holding community or the Practice community:

STEP 3: In Figure 3c the user selects the option to connect with Science, and chooses from a list of Features, in this case to "Request a Policy Brief":

The user groups were defined following a series of interviews with stakeholders conducted by Fuse IQ, addressing the following questions, the findings on which are summarized below:

- Who are the user groups?
- What do we think they are looking for?
- What is the unique value that the portal provides to these user groups in the context of IPBES capacity building?
- How does the site build the capacity of each of these groups, while facilitating interaction between them?
- How might we measure the way that the capacity of these user groups has been enhanced?

"Practitioners"

Practitioners (or implementers) may include community members, *indigenous peoples,* members of non-governmental organizations and *community-based organizations, businesspeople, farmers, local governments, UN organizations, and a multitude of other organizations and individuals involved in implementation of biodiversity and ecosystem services work on the ground.*

Interviews showed that practitioners are often looking for short, accessible summaries of research that is relevant for their own work and also to use as evidence to influence policy-makers from the ground up. Some practitioners mentioned a desire to influence the agenda of researchers to address questions they face in implementation on the ground. The need was also expressed for practitioners to have opportunities to share their learning with others through online exchanges and face-to-face learning exchange visits. Practitioners also need to connect with other stakeholders who have relevant experience and tools, for example, who have successfully completed an ecosystems services assessment or gathered baseline data.

Goals for the web portal thus include:

- **Facilitating links between implementers** of local-scale biodiversity and ecosystem management initiatives, laying the groundwork for peer-to-peer learning. An online space will be provided for users to share information, documents, photographs, video and audio.

- **Linking practitioners to policy-makers** at national and international levels by capturing their experience of what works on the ground, drawing on diverse knowledge systems including traditional knowledge. This will work both ways, including the development by practitioners of community policy briefs in conjunction with coordination unit staff, and the development by staff on request of accessible summaries of key legislation and policy documents.

- **Linking practitioners to scientists**, channelling questions and applied research needs from those involved in implementation to researchers, and making the peer-reviewed, published research findings of IPBES assessments, the broader scientific community and other forms of knowledge including traditional available by increasing access to relevant journal articles and abstracts, and "grey literature". Coordination unit staff can work with users to develop summaries of key scientific developments in areas where gaps are identified, in order to influence resource management practices, project design and implementation.

"Scientists"

"Scientists" is a term used to link in with the focus of IPBES on "Science-Policy", but is intended to include a broad range of knowledge, holders, producers and managers. This includes holders of local and traditional knowledge; applied researchers working for NGOs, governments or policy thinktanks; and students and academics from tertiary teaching institutions and research institutes in both natural and social sciences from across the world. It also includes those responsible for undertaking key analysis and assessments and dealing

with the valuation process and/or mainstreaming process of biodiversity and ecosystems at the national and international level including NBSAP coordinators, CBD focal points, NGO staff and consultants.

Interviews showed that scientists, in this broad sense of knowledge managers, are looking for funding, access to ecosystems assessment data, shared expertise including across countries, lessons learned and ways to increase capacity. Scientists described the challenge of people not always being willing to share their data, inconsistency of data, and difficulty in comparing information from different knowledge systems and integrating knowledge from different disciplines. Scientists are looking for opportunities to connect with experts across countries who have had success completing similar ecosystems services research and are also looking to share data and get access to shared data in order to increase capacity. Interviewees expressed a desire to use the BES-Net web portal to share new research findings with those in the policy and practice communities who might find them useful, and also to learn from these communities about their knowledge needs.

Goals for the web portal include:

- **Facilitating links between knowledge holders**, going beyond sharing research findings through publication to connecting specific groups of people who hold, produce or manage knowledge, including traditional knowledge, cooperating in a particular field to apply their findings. This could be facilitated through online support on the web portal for the process of conducting joint assessments – global, sub-global and thematic, through IPBES and other processes.

- **Linking scientists and policy-makers**, providing online space for sharing of best practice around the translation of scientific findings into policy-relevant messages and the process through which policy formulation has been successfully influenced, with users posting videos showing best practice examples on the portal, and sharing documents. Policy-makers could also benefit from an archive of articles, abstracts and documents, and briefs providing summaries of key scientific developments.

- **Linking scientists and practitioners**, channelling questions and applied research needs from those involved in implementation to researchers, and making the peer-reviewed, published research findings of IPBES assessments and the broader scientific community available by increasing access to relevant journal articles and abstracts. The Ask an Expert service could provide a direct route for scientists to communicate expertise in a particular area in response to specific queries.

"Policymakers"

Policymakers are broadly defined as government staff at different levels and their advisors who write policy, as well as those in intergovernmental organizations (IGOs), large NGOs, development banks and UN organizations who are involved in making policy for their own organizations. Examples of policymakers include CBD and UNCCD points; people involved in commissioning assessment of biodiversity and ecosystem services; the 111 Member governments of IPBES and their national and sub-national government politicians, officials, planners and policymakers.

One function is to identify and prioritize key scientific information needed for policymakers at appropriate scales and catalyze efforts to generate new knowledge by engaging in dialogue with key scientific organizations and funding organizations. Policymakers need capacity to demystify the science and understand at a high level the concepts and findings presented by Scientists. They are key players who are informed by what research demonstrates and introduce it to decision-making systems, in order to ensure that knowledge-based decisions are taken. Policymakers will access the BES-Net Web Portal to search the science document library. Documents will be available for search and tagged with relevant IPBES topics, keywords, themes and country. They will also be able to identify a knowledge gap and request the support of the scientific community in conducting research on an issue relevant to their needs. The Knowledge Manager will moderate the knowledge gap requests and follow up with the Policymaker if additional information is required.

Goals for the web portal also include:

- **Facilitating links between those who make policy** at various levels – local, sub-national, national, regional and global – in relation to policy-making and their experience of bridging the science-policy divide, for example sharing with each other best practice around how to incorporate scientific findings into policy-making, or how to influence research agendas to address applied policy-relevant topics.

- **Linking policymakers to practitioners and scientists**, in way which fosters collaboration and increased understanding. This might include facilitating access to regularly updated policy-related information, and increasing access to policy-relevant tools and methodologies and opportunities to share experience on their development and use. This could also include links to online training courses, and other means of sharing learning between the communities.

Explicitly targeting the three user groups in this way addresses the third objective of the portal:

Objective 3: To **build the capacity of users** from the science, policy and practice communities to communicate their needs and share their knowledge more effectively within and between these communities, building new communities of practice

The online sharing of information and tools will be backed up by and interface on a continuous basis with the "real-life" network of participants around the world and their face-to-face capacity building activities. For example, development of online policy briefs could draw on seminars and conference organised by network participants, as well as official IPBES events, such as dialogue sessions on assessment themes. Peer-to-peer community learning exchange visits organized by the Equator Initiative or the UNDP-managed GEF Small Grants Programme, or South-South cooperation learning events could build on connections made through the BES-Net web portal. In this way, the second objective of the web portal is addressed:

Objective 2: To act as an **online vehicle for the BES-Net network** of participants actively involved in building capacity in the interface between science, policy and practice related to biodiversity and ecosystem services.

The following sample pages of the web portal demonstration model presented at the Bonn side-event in January 2013 provide examples of how real-life connections between members of the three key user groups might be facilitated, as the result of initial connections made online through the BES-Net web portal. These are hypothetical connections shown here on demonstration pages illustrating how the web portal might look and might report back on such connections made.

Connections made through the web portal could stimulate face-to-face interaction as shown below.

Figure 4: Sample pages from the demonstration model showing potential types of interaction

- **Interaction between scientists and policy-makers**

- **Interaction between practitioners and scientists**

- **Interaction between practitioners, scientists and policymakers**

6. Involvement in the portal

This section outlines the proposed strategy for involving people and organizations in the BES-Net web portal, adding value to the portal itself, growing the capacity building network of which the portal is an online manifestation, and developing participants' own capacity at individual and organizational levels. This vision will be the subject of discussions in the months ahead with the many key stakeholders who have expressed an interest in contributing to and participating in the BES-Net network and portal.

The proposed BES-Net web portal will be open and accessible to users who do not wish to register and engage more deeply with the site, but may simply visit the site occasionally, for example, to access a particular piece of information or download an open access journal article on a topic of interest. Such users may not become involved with the network and web portal on a regular basis or contribute material to it, and will not be required to register in order to access material on the site. It is anticipated that there will be many such unregistered users, whose participation will be tracked by the web portal staff gathering statistics using web analytics on the number of unique new visitors to the site to demonstrate growth in usage over time, and also using Google Analytics to determine their country location where possible, in order to keep track of geographical trends in usage.

Critical to the proposed web portal's operation and success will be the active engagement of registered users and network participants. In order for the web portal to act as a vehicle for the BES-Net capacity building network of participants, it will be useful for individuals to register themselves and / or the organizations of which they are representatives or office-bearers, as registered users of the web portal. This will enable them to use features such as "Request a Policy Brief" and "Share New Findings" (explained below), facilitating a two-way flow of information and communication, and will also enable them to receive electronic newsletters from BES-Net on a regular basis, and to participate in surveys or evaluations if they so wish. Individuals registering on the web portal as registered users will thus enable them to gain access to the full functionality of the site and associated services.

In addition to registration by individuals, it is envisaged that governments and organizations may wish to be network participants and to include their logos on a special page devoted to this purpose on the BES-Net web portal. It is envisaged that network participants may include organizations of various kinds from across the range of the three user groups and beyond playing a role in the interface between science, policy and practice in biodiversity and ecosystem management. Centrally, this could include national governments, or particular ministries, divisions or units within them, which are Members of the IPBES Platform. It could also include non-governmental organizations, community-based organizations, consulting firms, research institutes or units, departments within tertiary institutions, and other structures.

Representatives of many government ministries and parastatals have expressed interest in participating, for example, from Mexico, India, Brazil, Germany, South Africa, Nepal, Chile, Ethiopia, Costa Rica, Korea, Kenya, Philippines, Egypt, Turkmenistan, Fiji, Sweden and Italy. In addition, key network participants are likely to include members of the secretariats of the organizations, on behalf of those organizations, which participated in the BES-Net side-event at Bonn - including UNEP, FAO, UNESCO, CBD, UNCCD, UNFCCC, Ramsar, CITES, IUCN and GBIF and the Stockholm Resilience Centre. The feedback of members of ministries and secretariats on this draft strategy will be critical to establishing how the web portal can best serve their needs, contributing to synergies and avoiding duplication of efforts.

It is proposed that each government or organization becoming a BES-Net network participant could be involved as follows:

- An organization wishing to **become a network participant** would write a letter to this effect to the BES-Net web portal coordinator, who would keep a database of participants and their contact details.

- Network participants would have their **logos displayed** on a special page devoted to this purpose on the BES-Net web portal, with each logo forming a link through to the organization's own key website.

- An organization could **withdraw as a network participant** also by writing a letter to this effect to the coordinator, who would remove their logo from the website and details from the database.

- A new network participant would hold an **initial telephonic conference** with the web portal staff to outline its structure, objectives, areas of work, data, products and services, leading into a discussion on how the BES-Net portal could provide links and drive traffic to the network participant's website and organization, and what material, if any, the network participant would like to see replicated on the BES-Net site.

- A network participant would undertake to provide the BES-Net portal staff with **regular updates** by email on new data, products and services available, and also on face-to-face capacity building work, so that this information could be referred to on the portal and appropriate links created.

- Network participants would be asked to **advertise the BES-Net web portal** and its features and services within their own organization and networks, and to encourage individuals to register as users of the BES-Net web portal and engage actively with it.

- In response to particular **requests from registered users** and other network participants, a particular network participant might be asked to respond to a query, provide a link to a source of information or even consider commissioning a particular tool or product to fill an identified gap.

- Network participants would be invited to attend an annual **BES-Net Network Meeting** to be held on the margins of IPBES meetings, where they can provide strategic feedback on the portal's progress and guidance on its future development.

7. Oversight and management

It is proposed that the development and operation of the BES-Net web portal should be overseen by a small and streamlined advisory committee, with representation by host partners, funders and – if deemed appropriate – the structures of IPBES (Plenary, Bureau, Multidisciplinary Expert Panel and Secretariat). At least in the establishment phase, it is proposed that the advisory committee should also include UNEP-WCMC and the Norwegian Environment Agency as key collaborators in the development of the concept for the portal.

It is proposed that the advisory committee would meet twice a year (at least once face-to-face, during an IPBES plenary meeting) to provide direction for the establishment and operation of the portal and its coordination unit, monitor and review progress, conceptualize its expansion and guide the process of leveraging further resources. As part of its monitoring role, the committee would address issues that arise in relation to quality control over material on the website, making themselves available for *ad hoc* telephonic meetings between the twice yearly committee meeting as necessary in order to help the coordination staff to resolve these issues. More detail on the proposed coordination of the portal on a day-to-day basis is provided in Section D on Implementation of the strategy, where it is proposed that a full-time coordination unit of the web portal be located in UNDP's Global Biodiversity Programme.

It is hoped that the dissemination of this document will engender feedback and further discussion on the above proposal for levels of involvement in the BES-Net web portal, and UNDP and partners will continue to consult widely on this.

8. Relationship with IPBES

This draft strategy will be discussed with the IPBES interim secretariat to determine the best way forward on this, and on the relationship between the proposed web portal and IPBES.

Since the first official plenary of IPBES in Bonn in January 2013, and the establishment of the Bureau and Multidisciplinary Expert Panel to serve the needs of the 111 Members of the Platform, much progress has been made in setting out a draft work programme for discussion at the second Plenary of IPBES in Antalya in December 2013, and also in defining a potential approach to the formation of strategic partnerships for IPBES in carrying out the work programme, potentially leveraging the expertise, energy and resources of a range of partners in contributing to the goals of the programme.

The recently released "Draft Work Programme 2014-2018" has as its first objective to "Enhance the enabling environment for the knowledge-policy interface for biodiversity and ecosystem services". This includes Deliverable 1d, "Approach to networking of experts, partners and stakeholders involved in sustaining capacity

building and supporting work under IPBES", which acknowledges that: "All IPBES activities will need the support of networks of experts, partners and stakeholders whether these networks are supporting assessment processes, knowledge generation and sharing or the development of policy support tools".

The document sets out a framework within which the emerging BES-Net capacity building network could be seen as such a network. It suggest that: "Networks may be loose associations of individuals working on the same topic, communities of practice working together to address particular issues and to share experience, or support groups working together on the development and implementation of particular tools. Not all of these networks will necessarily be led by IPBES or operate entirely under the auspices of IPBES, but recognition and potentially support provided by IPBES will help these groups in engaging effectively in supporting the IPBES work programme. These networks could also be furthered and strengthened as a result of their association with IPBES."

The document also highlights some examples of networks, including BES-Net, saying that the approach of IPBES to networking "will be developed together with partners, in particular the United Nations bodies involved with IPBES and relevant MEAs during a range of meetings in the course of 2014." It will explore how to build on – and learn lessons from – existing networks and collaborative activities including the Sub Global Assessment (SGA) Network, Biodiversity and Ecosystem services-Network (BES-Net), and with regard to data management and observation Global Earth Observations (GEO) and Global biodiversity Information Facility (GBIF)".

In the spirit of the above, it is proposed that this draft strategy be used as the basis of a discussion with the IPBES secretariat on how UNDP's work to leverage resources for and develop and maintain a BES-Net web portal in collaboration with network participants might contribute to or support the work programme of IPBES. This could include a discussion on the potential relationship between the BES-Net web portal and the structures of IPBES, and how such a relationship might be managed to ensure that the web portal would enhance the work of the Platform and avoid risking posing any reputational risk to the Platform.

It is noted that this discussion will take place within the context of a broader ongoing discussion on the role of UNDP and other UN organizations in supporting the IPBES work programme. The first official IPBES Plenary requested UNEP, UNESCO, FAO and UNDP to "establish an institutional link with the Platform through a collaborative partnership arrangement for the work of IPBES and its secretariat", as well as requesting UNEP to provide the Platform's secretariat, accountable to the IPBES Plenary on policy and programmatic matters. UNDP is currently involved in discussions with the other UN organizations about how best to apply each organization's comparative advantage in supporting the work programme of IPBES, and on the possibility of bringing to the second official Plenary of IPBES a proposal for how best to signify the UN organizations' special status as strategic partners of the Platform.

9. Relationship to other websites

This section outlines the proposed strategy for how the BES-Net web portal might relate to other websites, particularly those of network participants and of IPBES itself. The intention would not be for BES-Net to compete with what is already out there but to build upon it and achieve synergies with related initiatives. The designers of this initiative are well aware of the vast array of websites, web portals, databases and e-learning tools currently available on the Internet[19], representative of the enormous volume of information, knowledge, spatial and other data, published and "grey" literature generated in recent decades on a wide spectrum of biodiversity and ecosystem management issues.

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[19] A description of "Portal Proliferation Syndrome" is provided by the Climate and Development Knowledge Network at http://cdkn.org/2011/06/portal-proliferation-syndrome/

The intention of the BES-Net web portal is not to duplicate effort, but to provide a "one-stop shop" that harnesses the energy generated by the new IPBES Platform and creates synergy between the efforts and online work of all participants in the capacity building network. Feedback received on the proposal thus far indicates that the proposed portal is timely in the context of the establishment of IPBES and meets a genuine need by specific audiences for improving access to and sharing of specifically defined knowledge. The portal will also be well staffed to ensure that it is a "living, breathing" learning platform, where new content, links and value-added material are uploaded on a daily basis. Research by the International Institute for Sustainable Development[20] indicates that this is essential in order to keep a finger on the pulse of what is needed by users to bridge the gap, and to provide a consistent and stimulating nucleus of activity around which communities of practice can form.

The web portal is designed consciously as a portal or gateway to other websites, including those of all three user groups: 1) websites that showcase the work of scientists in the broad sense – academic journals, open access journals, traditional knowledge holders and their advocates, tertiary institutions; 2) websites of policy-makers – intergovernmental bodies, national governments, sub-national/regional/state governments, local governments/municipalities, protected areas agencies and co-management structures; and 3) websites of practitioners including the private sector, NGOs, community-based organizations, UN organizations, training organizations and many others.

In the third category of practitioners in the biodiversity and ecosystem sphere, there are a number of websites with an explicit capacity building function, and the BES-Net web portal will have prominent links to these. These would likely include the secretariats of the CBD, UNCCD and UNFCCC, and relevant capacity building initiatives and online tools supporting these Conventions, including the Clearing House Mechanism of the CBD, the CBD's work to support NBSAPs, the UNCCD's new Capacity Building Marketplace, and the InforMEA initiative, as well as the capacity building work of UN organizations FAO, UNESCO, UNEP and UNDP, the commissions and specialist groups of IUCN, the Sub-Global Assessment Network run by UNEP-WCMC, the GEO-BON and GBIF networks, the Biodiversity Indicators Partnership, the Stockholm Resilience Centre, the Norwegian Environment Agency currently hosting the unit on capacity building supported by the Norwegian Biodiversity Information Centre (NBIC), the Norwegian Institute for Nature Research (NINA) and the Norwegian University of Science and Technology (NTNU), and many other related initiatives. These key network participants will have visibility on the BES-Net portal through their work being showcased and links to their websites.

Below is an outline of five of these key related websites, with an analysis of what they offer, and how BES-Net might complement them and add distinct value, together with an example of a content-related website in the form of the website of the Society for Restoration Ecology. This document will be discussed in detail with the organizations hosting these and other key related websites and capacity building initiatives:

1. The Intergovernmental Platform for Biodiversity and Ecosystem Services
http://www.ipbes.net/

What it is: This is the official website of IPBES which is operated by the interim secretariat in UNEP and will be taken over by the Bonn-based secretariat during 2013. It houses all official documentation on the Platform, its process, structures and documentation, and makes available on an ongoing basis specific opportunities for member governments and other stakeholders to comment on or submit documents in preparation for Plenary sessions, or as part of the intersessional process. In this sense, the website provides a critical means of communication with members, and is part of the actual operation of the platform, also helping to develop capacity. In addition to procedural documentation, it houses a small number of general resources on biodiversity and ecosystem services at http://www.ipbes.net/resources.html#bginfo. As the work programme of IPBES is developed following IPBES-2 in Turkey in December 2013, the website may reflect work being

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[20] Creech, H. (2011) Learning and Knowledge Sharing for Scaling-up Local Development Initiatives, Scoping paper, International Institute for Sustainable Development

undertaken in all four work streams of IPBES, including capacity building.

How BES-Net can complement it: The proposed BES-Net capacity building web portal would in no way wish to infringe upon the critical role, official status and excellent operation of the official site, but would rather be intended to complement it by providing a dedicated and fully staffed focus on capacity building, freeing the official site to focus on all its other critical roles in making the Platform effective and dynamic. Two options have been discussed with stakeholders in this regard: 1) seeing BES-Net as a "sister site" to www.ipbes.net, with a visual identity and branding which draws a clear link between the two websites, if so agreed by the IPBES Plenary (or its Bureau, Secretariat or other appropriate structure) or 2) designing a unique BES-Net logo which is not consciously echoing the IPBES logo, and displaying the actual IPBES logo on the site together with those of all network participants. Regardless of which option is chosen, there will be a need for systematic coordination to promote synergy and avoid duplication. The web portal coordinator would also share information and coordinate on a weekly basis with the coordinator of the official IPBES website to promote synergy and avoid duplication of efforts. These ideas will be discussed with the structures of IPBES.

This will enable the portal to address its first objective:

> *Objective 1:* To provide **support to the work of the IPBES Platform** in building Member states' and other stakeholders' capacity to generate knowledge, contribute to assessments, and develop and use policy support tools and methodologies

2. The Clearing-House Mechanism of the Convention on Biological Diversity
https://www.cbd.int/chm/

What it is: The Clearing House Mechanism (CHM) was established by the CBD Secretariat to further Article 18.3 of the Convention. Its mission is to contribute significantly to the implementation of the Convention on Biological Diversity and its Strategic Plan for Biodiversity 2011-2020, through effective information services and other appropriate means in order to promote and facilitate scientific and technical cooperation, knowledge sharing and information exchange, and to establish a fully operational network of Parties and partners. The mechanism aims to provide effective global information services to facilitate the implementation of the Strategic Plan for Biodiversity 2011-2020, and the national biodiversity strategies and action plans (NBSAPs) and is based around the CBD website as the central node. In addition, many of the 193 Parties to the CBD have their own CHM websites, with 26 of these linked in a central network at https://www.cbd.int/chm/network/, and with the network supplying contact details for other countries' focal points. For an example of a country site, see Ethiopia's at http://et.chm-cbd.net/.

How BES-Net can complement it: Since BES-Net will have full-time staff it will be in a position to upload significantly larger volumes of information on a much more regular basis than is currently possible through the CHM node and sites, since this is just one small part of the very comprehensive and complex CBD website run by the CBD secretariat, and the system relies on government partners, also busy and with their own websites to run, to expand the clearing-house mechanism network and services. There are also ongoing research processes conducted under the CBD's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) which will be highly relevant for the BES-Net network of participants, and the web portal can assist in broadening the audience for these processes. Finally, the CBD is engaged in a large number of face-to-face capacity building activities, including workshops to support the National Biodiversity Strategy and Action Plan (NBSAP) and Programme of Work on Protected Areas (PoWPA) processes, and a new NBSAP Forum together with UNEP, UNDP and UNEP-WCMC, and it will be essential to engage them as core network participants in BES-Net, and also to consult the CBD secretariat fully to ensure maximum synergy with the CBD-led processes and services outlined above, and avoid any duplication.

3.   The Capacity Building Marketplace of the UN Convention to Combat Desertification
http://www.unccd.int/marketplace

What it is: The UNCCD Capacity Building Marketplace has recently been established by the UNCCD Secretariat to bring together needs and possible solutions related to capacity building for implementation of the UNCCD – combating drought, desertification and land degradation. By directly linking demand and supply for stakeholders in the UNCCD process, and in particular with the implementation of its 10-Year Strategy, the website provides space for participants to post information about volunteerism, fellowships, scholarships, internships, e-learning, tertiary and short courses, new development and partnerships. It also has a topical library with articles on issues related to drylands, with Water as the first topic populated. The website aims to collect and diffuse the capacity building needs identified by Parties and other stakeholders in the UNCCD process, as well as available and emerging opportunities, helping to match these opportunities directly with the identified needs. The Marketplace is designed as an interactive platform, inviting participation in different ways, including through sharing success stories and using the available partnerships opportunities to deepen and widen cooperation and collaboration in the field of capacity building at all levels.

How BES-Net can complement it: The secretariat of the UNCCD has expressed a desire to work closely with the BES-Net web portal, which will undertake several similar functions as the Marketplace, but across a broader spectrum of issues in relation to biodiversity and ecosystems services, relating to all three Rio Conventions and multilateral environmental agreements. The BES-Net portal will aim to drive traffic to the Marketplace in relation to UNCCD-related issues and not to duplicate efforts in this regard. Stakeholders at the Bonn side-event on the BES-Net web portal responded very favourably to the Marketplace concept and suggest that similar "matchmaking" elements be employed in the BES-Net web portal. Staff working on the web portal could have it as part of their responsibility to actively source and moderate information on training, funding and other needs and opportunities, since this relates to the function of matching requests for information with experts / documentary sources. These ideas will be discussed with the UNCCD Secretariat.

4. The One UN Training Service Platform on Climate Change (UN CC:Learn)
http://www.uncclearn.org

What it is: UN CC:Learn is a collaborative initiative involving 33 multilateral organizations which supports Member States, UN agencies and other development partners in designing and implementing country-driven, results-oriented and sustainable learning to address climate change. The initiative was launched at the 2009 Copenhagen Climate Change Summit. It is included in the "One UN Climate Change Action Framework" of the UN System Chief Executives Board for Coordination (CEB) through a special capacity development group convened by UNDP and UNEP. The CEB framework aims at maximizing existing synergies, eliminating duplication and optimizing the impact of the collective effort of UN organizations in combating climate change. At global level, the initiative aims to foster knowledge-sharing and UN collaboration in designing, delivering and evaluating climate change learning activities and materials; wile at the national level it supports a strategic and results-oriented approach to climate change learning through multi-sectoral and multi-stakeholder collaboration. Three programme areas are knowledge management and networking, development of a One UN Climate Change Training Package, and human resources, learning and skills development in partner countries. The site makes available UN learning resources in climate change and a total of 36 UN climate change learning websites, and highlights new learning events, platforms and materials.

How BES-Net can complement it: With the BES-Net portal focused on biodiversity and ecosystem services there will be a need for a two-way relationship with a large number of learning websites and initiatives in the climate change arena, particularly around adaptation and mitigation solutions that involve the conservation, maintenance or restoration of natural ecosystems, and UN CC:Learn acts a portal to 35 of the key ones, particularly in the UN system. The BES-Net web portal can drive traffic to the UN CC:Learn site as well as the knowledge networks of UNEP, UNDP, FAO and IUCN on adaptation that include an element of ecosystem-based adaptation that is relevant in the context of IPBES – including the UN-REDD Programme site, the REDD learning site, the Adaptation Learning Mechanism, the Global Adaptation Network and the Ecosystems

and Livelihoods Adaptation Network. The ongoing delivery of face-to-face capacity building interventions by BES-Net network participants can also link with the services provided by CC:Learn at global and national scales.

5. International Waters Learning Exchange and Resource Network (IW-Learn)
http://iwlearn.net/

What it is: The goal of the Global Environment Facility's International Waters Learning Exchange and Resource Network (IW-Learn) is to strengthen Transboundary Waters Management by facilitating experience sharing and learning among GEF IW projects and the country officials, agencies, and partners working on them. The website is a vehicle for an impressive set of services to projects including a content management system supporting knowledge sharing (with project-related information, contacts, documents, events, news syndication feeds and services like vacancy announcements, blogs, email lists and IW project website archiving). Its staff also provide digital outputs from GEF IW conferences; guidance materials and products of GEF IW-Learn and other water-related learning are available; a biennial GEF International Waters Conference; technical support services to projects; project-project learning exchanges/twinning exercises; targeted technical training workshops; regional dialogue processes; outreach: information capture, synthesis, dissemination; community of practice support; support to global dialogues; referral service (help desk) and GEF agency support to transboundary waters learning.

How BES-Net can complement these: The BES-Net web portal can link to and drive traffic to the IW-Learn site and offer links to its resources. Because the IW:Learn site is not linked to the secretariat of a particular convention but the Global Environment Facility it offers an emphasis on services to GEF projects that will be useful for the third BES-Net user community of practitioners. The ongoing delivery of face-to-face capacity building interventions by BES-Net network participants can also link with the services provided in this field, and there are many other such examples.

6. United Nations Information Portal on Multilateral Environmental Agreements (InforMEA)
http://www.informea.org/

What it is: The InforMEA website covers 43 Multilateral Environmental Agreements (MEA) – international and regional legally binding legal instruments from 17 Secretariats hosted by three UN organizations and IUCN. The website harvests relevant Conference of the Parties (COP) decisions and resolutions, news, events, membership, national focal points, implementation plans and reports from MEA secretariats and organizes this information around a set of agreed terms drawn from COP agendas. InforMEA is a project of the MEA Information and Knowledge Management (IKM) Initiative, facilitated by UNEP, and bringing together stakeholders to develop harmonized and interoperable information systems for the benefit of Parties and the environment community at large. The Initiative is facilitated by the United Nations Environment Programme. The Initiative invites and welcomes the participation of observers involved with MEA data and information, such as the European Environment Agency (EEA), the Environmental Management Group (EMG), IUCN, the UNEP-World Conservation Monitoring Centre (UNEP-WCMC), and the International Institute for Sustainable Development (IISD).

How BES-Net can complement it: The BES-Net portal can drive traffic to the InforMEA site, as an excellent source of information on the multilateral agreements whose implementation the portal aims to support. It can complement this information through the provision of content and tools around a set of priority themes in which there are pressing science-policy questions, facilitated by having dedicated full-time staff on the portal. This will enable two-way traffic between the two websites and effective complementarity of their work. This needs to be discussed with the secretariats of the various MEAs to ensure synergy and avoid duplication.

7. The Society for Restoration Ecology
www.ser.org

What it is: This website is outlined here as an indicative example of a key partner website related to one of the proposed thematic areas to be covered by the web portal. The Society for Ecological Restoration is dedicated to reversing degradation of the aquatic, marine and terrestrial environments that underpin our economies and societies, and restoring the earth's ecological balance. The Society brings together members who participate in restoration activities worldwide, promoting learning and sharing. The website highlights resources including academic journals such as *Restoration Ecology* (the Society's own journal), *Ecological Restoration Management* and *Ecological Restoration*.

How BES-Net can complement it: The BES-Net website could guide people to the Society for Restoration Ecology and their website, in order to access information on restoration work (for example, through the Restoration Project Showcase featured on their site), and on restoration-related events, and to access key journal articles. The BES-Net web portal could upload key open access articles from the SER, or make these articles available in response to particular queries. Discussion with the SER would unlock further opportunities for collaboration and cross-pollination between the sites.

10. Tracking and evaluation

A critically important role for the coordination unit will be to track the volume of traffic to the site and usage patterns on the site, through the use of web analytics tools (see Annex 4) that will be custom designed for the BES-Net web portal's needs. In addition it will be important to develop mechanisms for monitoring and evaluating both the quality and quantity of knowledge products that are being highlighted on the web portal and developed specifically for the portal, and success in matching up requests and information.

Overall it will be important to find ways to track and measure the effectiveness of the website in meetings its objectives, particularly its effectiveness in building capacity to bridge the gaps between science, policy and practice, since this is its core goal. In particular it will be important to find ways of measuring the impact of participation in the portal on users' capacity – at the individual level, but also at the level of the organizations and institutions to which they belong, and in turn on the larger processes of which they are a part.

One potential tool for evaluation is the use of annual surveys, distributed through the email network of registered website users who also receive quarterly electronic newsletters. Such surveys could provide space for qualitative as well as quantitative feedback on the use and impact of the site on individual users' and network participants' capacity. The annual meetings of the annual BES-Net Network Meetings on the margins of IPBES (see below) could also be used for more analytical feedback and discussion.

Question for ongoing evaluation include:

- To what is extent is the portal's operation helping to bridge the gaps between science, policy and practice in order to improve the management of biodiversity and ecosystems, implementing the three Rio Conventions and related multilateral agreements in a way that contributes to long-term human wellbeing and sustainable development?

- To what extent is the portal providing support to the work of the IPBES Platform in building Member states' and other stakeholders' capacity to generate knowledge, contribute to assessments, and develop and use policy support tools and methodologies?

- To what extent is the portal acting as an online vehicle for the BES-Net network of participants actively involved in building capacity in the interface between science, policy and practice related to biodiversity and ecosystem services?

- To what extent has their participation in the portal built the capacity of users from the science, policy and practice communities to communicate their needs and share their knowledge more effectively within and between these communities, building new communities of practice?

- To what extent has the portal facilitated access by network participants to each other's information, data, knowledge, publications, assessments, policy-relevant tools and methodologies, as well as mutual capacity building opportunities, and to fill specific knowledge gaps?

- To what extent have individuals been able to promote their learning through the portal's customized user interface that provides easy access to the above tools in thematic areas identified as priorities by individual users and through the development of and access to electronic-learning modules in key thematic areas.

11. Features and services

At the heart of the BES-Net web portal is a set of features and services provided to website users. The technical detail behind the delivery of these features is contained in Annex 4, which highlights recommendations by Fuse IQ on a number of technical issues – creation of user profiles, the website's Content Management System, specifications for hosting, translation into other languages, mobile applications, web analytics, integrated taxonomy, categories of information, and suggests an initial proposed site map.

The web portal features can be accessed through the entrance route of identifying oneself as a user from one of the three groups, "Science", "Policy" and "Practice" – indicating which of the other user groups you would like to connect with, and then choosing a feature which enables you to make this connection.

The features provide a unique set of products and services, some involving access to existing material and some the generation of new material by staff of the web portal, as requested by users or following patterns in user demand. The intention is that, through the process of accessing these services and features, users' capacity is developed. Associated with the features listed below are the ideas that content will be produced and use the appropriate categorization (taxonomy) and tagging capabilities, and that the portal itself will be appropriately staffed.

11.1 User Profile, Dashboard and Personalization

This feature will allow users to enter a brief profile, optional information about who they are, information about their work and how they think it is currently being used / could be used in future by others from within or beyond their user community. An example might be a representative of a Pacific Island community who includes in her user profile the fact that "my community recently made inputs to government on customary marine tenure which were successfully incorporated into the new fisheries management policy". This could inspire other communities in a similar situation to request further information on how this community successfully bridged the divide. Any user will be able to create a profile, which will be available to them to edit upon login.

- Required fields:
    - Name
    - Email (email verification required to complete registration)
- Optional:
    - Age
    - Location (Region and/or Country)
    - Stay Informed - eNewsletter preferences
        - Select topics of interest (from list of IPBES topics)
        - Receive Curated updates
    - Organization they represent
    - Phone Number
    - Language preference

- Ways they have contributed (list of links to their contributions, e.g. comment, uploaded video, request for Policy Brief, etc)
- Communication preferences, check boxes or text area

Once a user is registered on the BES-Net portal, opportunities are opened up for the user to "make it their own". It has been shown, through various online social websites (e.g. Facebook) that the more control a user has to customize their experience, the more ownership of and interactivity with the site they are likely to have. Methods need to be built into the portal that allow users to "like" and/or "follow" and/or "Add to Favourites" so that users can see which other users share the same interests. Users can then click on those users and view their profiles, start discussions, make connections, "follow."

For example, a researcher from Eastern Europe studying the role of indigenous insects on pollination of fruit trees, who assigns "Favourite" to the theme of Pollination, will see on his Dashboard a set of the most recent posts related to Pollination by BES-Net users, as well as recent articles or abstracts of article on this subject, including an English translation of an abstract from a Chinese researcher on a topic closely related topic to his own research, which enables him to make contact with the Chinese researcher.

A registered user can add (bookmark) a page, article or video clip (essentially any content type) to "My dashboard. " The user dashboard thus effectively becomes a customized resource library within the Portal, complete with a list of other registered users who share similar interests.

Through ongoing monitoring, the web portal staff may recognize that groups of people are sharing interests and sending in-mail to other users around certain topics. A staff member can start a Discussion and directly invite these users to the discussion, but in order to widen the Discussion it will continue to show up in the Dashboard of any user who tags Pollination as "My interest".

It is important for the BES-Net web portal to provide a low barrier for registration, thus only a name and email are required for basic registration. It will be the goal of the web portal staff to interact with users regularly to fill in additional information, in order to facilitate a richer experience for them. The system may also show a percentage "complete" (similar to LinkedIn) to entice the user to complete their registration profile and unlock features – e.g. it may be required to complete their profile to upload content. The levels of interaction envisaged by Fuse IQ at this stage are:

- No registration: any user can view all content on the site
- Basic registration: users can comment and rate content
- Full registration: users can upload and contribute materials to the site.

Based upon a Nielson Norman Group study on Participation Inequality, quoted in the IISD paper, on average 90% of users of a particular website will not participate in online communities, 9% will occasionally participate, and 1% will become active participants. This leads to lopsided aggregations of opinions and ideas. There are ways to improve participation, such as:

- Keep the bar low for participation so more users "jump through the hoop"
- Build participation into the system – automatically show how users are interacting with the system
- Incentivize participation – create a system of points or awards based upon the level of contributions
- Highlight quality contributions/contributors – have portal staff review posts and contributions and highlight to a special section of the site, or make awards manually.

Staffing requirements: The web portal staff will draft content for newsletters, and may need to moderate profile submissions, e.g. get clarification and work with users directly in order to review and approve the information.

11.2 Share New Findings

This feature will allow users to post their new findings, both in the form of a summary or an abstract, as well as a full document. Upon approval by the portal staff, uploaded data would be made available in a research library and on a 'latest news' board. These findings could be in the form of a published article in an open access peer-reviewed scientific journal. They could also be in the form of a summary of a workshop in which, for example, traditional knowledge on drought-resistant indigenous crop varieties in West Africa was shared by an NGO. Or results might be shared of a community research project in East Africa on techniques for managing human-wildlife conflict involving elephants, comparing the use of a ring of beehives as a barrier around villages with that of chili "fences". Such new findings would be of interest within and between the three user communities.

- Share abstract
  - Text Area / Field to paste content
- Upload document button
- Categorize and tag "Finding"
  - Topic area / theme
  - Country
- Comment on policy implications
  - Text Area

It should be noted that for this feature, and those which follow, users will need to login or register in the system to track results effectively and reduce receipt of spam. Submissions will go into a moderation queue for review and approval by the web portal staff. Approved documents will be available in the Knowledge Library section.

Staffing requirements: Web portal staff will moderate submissions through quality and fact checking. Staff will manually approve publishing to the appropriate section of the site.

11.3 Add a Video to Bridge the Gap

This feature will allow users to upload a short video of themselves / their organization / their community. This could be an existing video clip describing their work, or a video made specially for BES-Net describing the nature, scope and relevance of their work and why it will be of relevance to the other user groups and communities. For example, an environment ministry from a government in the Caribbean might post a video on a project being undertaken with Official Development Assistance and implemented together with an NGO to restore degraded forests to improve livelihoods and provide a buffer against hurricanes. The video may show how the experience of the project is helping fulfill the government's commitments to the CBD, UNCCD and UNFCCC and how the experience of the work has influenced the country's participation in these international fora.

For purpose-designed videos, guidance will be given on limiting the video comments to an "elevator pitch" format. An initial; set of videos can be developed and added to the site prior to launch. This also implies a need for a Video Library with video content categorized and tagged.

- View sample video button
- Add your video button (Phase I would allow linking to YouTube/Vimeo videos; Phase II may allow upload and encoding services)
- Categorize and tag video
  - Topic area / theme
  - Country

Staffing: Web portal staff will moderate submissions through quality and fact checking. Submissions will go into a moderation queue for review and approval by the web portal staff. Approved videos will be available in a Video Library and/or Knowledge Library section.

11.4 Survey Practitioners

This feature will allow users (in this case, scientists and policy makers) to poll practitioners on a particular question or issue, putting out a topic or question to vote or comment on. Web portal staff could get involved to solicit polls and get the appropriate audiences to respond. Users wishing to initiate a poll would need to either:

- Register on the site and create the poll using an extremely easy to use interface, or
- Make a request to the web portal staff and have them set up and categorize the poll
- Invite comments on a topic

There will need to be a formal process and way to present the invitation, for example, whenever a topic is requiring comment, staff could set up a block on the home page that highlights the topic and has formal invitation for comments with start date and end date displayed.

Staffing: Submissions will go into a moderation queue for review and approval by the web portal staff, who will moderate poll requests and allow publishing to the appropriate section of the site.

11.5 Connect with Policymakers

This feature will allow scientists or practitioners to access information on and contact details for policymakers in specific national ministries or line ministries across all CBD Parties through a process moderated by BES-Net staff. This would necessitate a searchable database of Ministries where a user searches and selects a Ministry to which they wish to connect, for example, an NGO in a South East Asian country which is working with a municipality around the potential for payments for watershed services by downstream urban water users may wish to make contact with the appropriate section of the Ministry of Finance in their own country that deals with water pricing strategies and legislation, and also to learn from the experience of neighbouring countries' national governments. An online form for this purpose could include:

- Ask a question text field
- Make a suggestion text field
- Request a site visit / meeting text field

It should be noted that responders to such requests will need to login or register in order to comment, track results effectively and reduce spam. Submissions will go into a moderation queue for review and approval by the web portal staff, who could also actively support in facilitating the making of connections.

Staffing: We anticipate this task could be facilitated by the web portal staff as well as available for users' online requests to connect with Ministries.
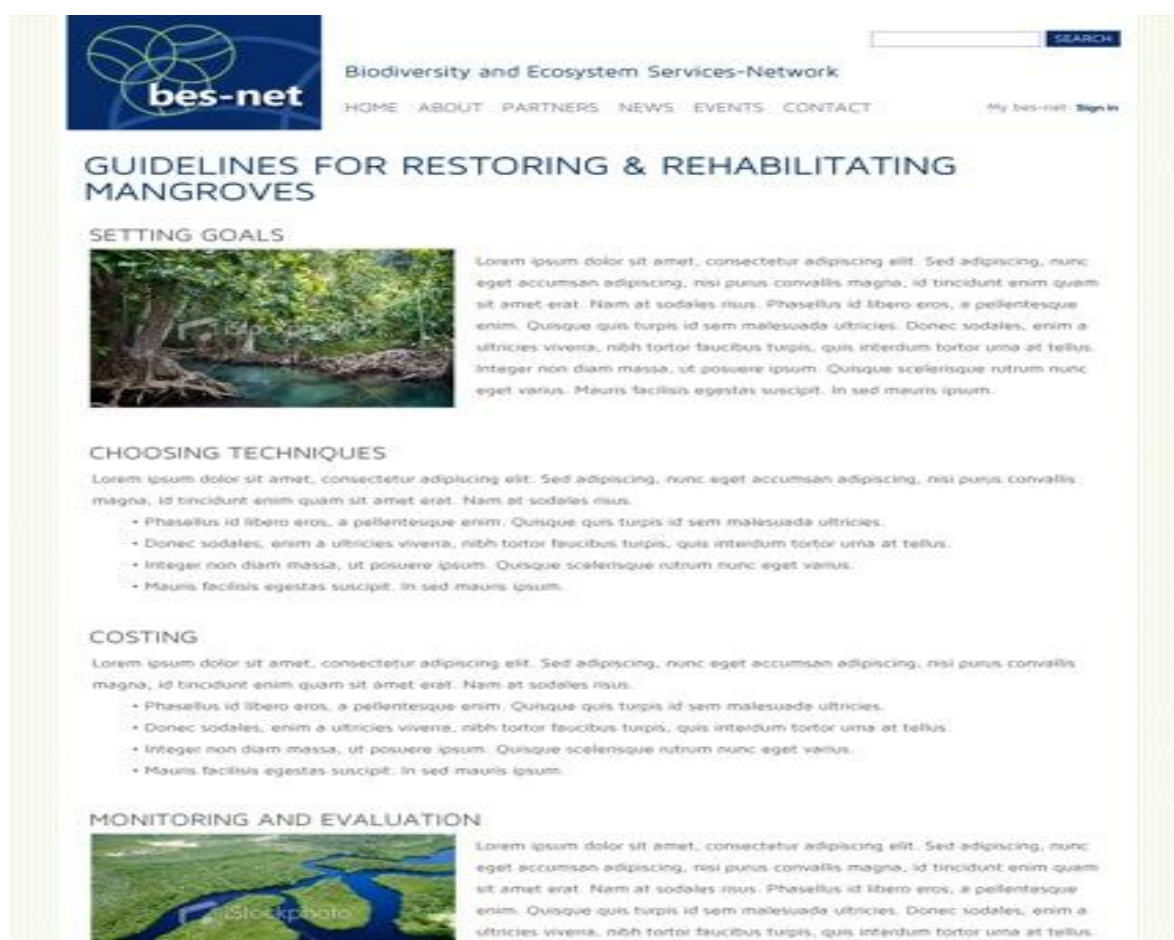
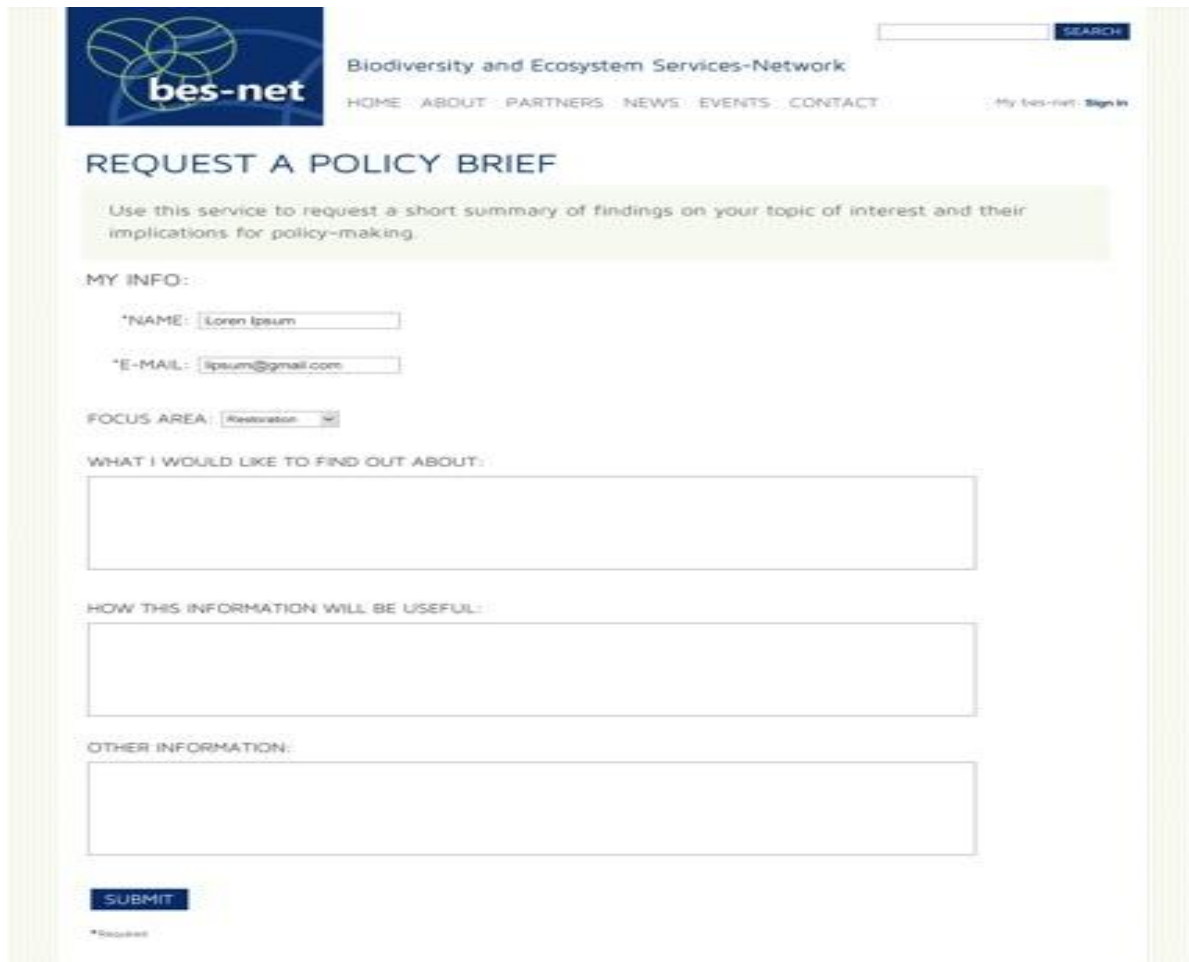### 11.6 Request a Policy Brief

This feature will allow users to request a policy brief (see Figure 5) based on best available research and/or traditional knowledge on a certain issue. For example, a policymaker from a ministry of agriculture in an Asian country may request policy guidelines on rangeland management – what appropriate stocking rates and grazing and burning regimes are for a particular ecosystem type in order to maintain biodiversity and hydrological functioning. BES-Net staff may respond by suggesting links to documents or institutions with relevant information, but where this is not available, they may decide to develop such guidelines in the form of a new policy brief, in consultation with relevant experts, making the brief available to the user who commissioned it and posting it online for users with related queries and experience to learn from and add to. It will be important to be mindful of the need to maintain quality control but simultaneously to avoid being prescriptive. The online request form would include:

- Complete online form fields (*fields will auto-fill since user will need to be logged in)
  - *First name
  - *Last name
  - *Email
  - Title
  - Organization
  - Subject
  - Topic (from list of IPBES topics)
  - Request a Policy Brief (text area)

Staffing: The web portal staff would moderate requests made online, get clarification and, where appropriate, write up documents with support from relevant experts. Web portal staff will also catalogue the resulting policy briefs in the appropriate library.

Figure 5: Sample pages from the demonstration model showing a Policy Brief and a form to request one

11.7 Search Policy Briefs

This feature will allow users to search the Policy Brief Library database (see Figure 6) according to themes, authors, organizations, keywords, country, region etc.

- (Filter by) Search topic of interest (from list of IPBES topics)
- (Filter by) Search by country
- Search by keyword (text field)
- Filter by Type, Author, Date

Staffing: BES-Net staff will directly manage the population of this library. They will write up summaries of scientific research and diverse knowledge in particular areas and its implications for policymakers, i.e. to brief the policymakers (based on topics identified by staff where there is deemed to be both a significant demand and a lack of existing material) and on the service Commission a Policy Brief) – see above. Documents will be added to the library and tagged appropriately so that users can easily search for them.

Figure 6: Sample pages from the model showing how to search for a Policy Brief and results

11.8 Share a Policy Support Tool

This feature will allow users to post and disseminate a policy support tool or a link to a website where a tool can be found, for example, a new database, a set of biodiversity indicators, a GIS tool etc. For example, an organization working to support sustainable land management might post online a new tool for mapping land degradation, and assessing potential for restoration of both species and ecosystem diversity and agricultural productivity. Users uploading tools or links to tools will be asked to complete the following fields, including a summary of the tool, its purpose and how it can be used in bridging the divides between science, policy and practice:

- Title field
- Body field
- File upload field
- Categorize
    - Topic area/theme
    - Country

Staffing: Submissions will go into a moderation queue for review and approval by the web portal staff, who will find and create links to existing tools, describing them in summary, as well as their strengths and limitations.

11.9 Ask an Expert

This feature (see Figure 7) will allow users to pose a question to individuals listed on a roster of "experts" (who can be practitioners, scientists, traditional knowledge holders, or policymakers) who agree to sign up on an ongoing basis in order to respond to occasional queries. For example, an expert from an NGO in the Amazon dealing with the links between biodiversity and gender in terms of the different roles played by men and women in sustainable harvesting of non-timber forest products and in co-managing indigenous and community conserved areas might make herself available to share information in both Portuguese and English on this topic on request by users of the web portal.

It is also suggested that a Guest Expert be recruited each quarter focusing on a particular topical theme, for example, an expert on the links between biodiversity and food security might be recruited as a guest expert during a period in which these issues are being addressed in the development by the global community of post-2015 Sustainable Development Goals. Questions to and answers from both ongoing and guest experts (in their individual capacity) will be reviewed/moderated by BES-Net staff first, to ensure that the experts' time is not wasted, e.g. answers may already be on the BES-Net site, or may be easily available from a documentary source or using a tool on another website. The fields could include:

- Template for experts to be added to roster by BES-Net staff
- Add yourself as an expert form
    - First name
    - Last name
    - Title
    - Background information
    - Image
- Ask your question field

Staffing: Web portal staff would need to recruit guest experts and potentially also ongoing experts where a sufficient pool is not available to answer the kinds of request that are coming in, respond to requests, match users up with information and or experts where appropriate, and write up the guest expert feature. They would

create the expert profile, review "Add yourself as an expert" submissions, and directly field "Ask your question" submissions.

Figure 7: Sample page from demonstration model showing Ask an Expert feature

11.10 Identify a Knowledge Gap

This feature will allow Policymakers and Practitioners to request the support of the Science community of knowledge holders of various kinds in conducting research on an issue of relevance to them. BES-Net staff will assist and support users in gaining access to the right kinds of institutions and organizations to help them. For example, a community-based organization in Southern Africa seeking to change the way that benefits from trophy hunting are shared between the community and the protected areas agency may flag as a knowledge gap the long term impacts on wildlife populations of such a shift in revenue sharing and associated management practices. This may be picked up by an academic in a nearby university who brings a team of postgraduates to undertake a piece of research over the next few years that can feed in results to the community's work. Knowledge Gaps will be displayed on the site, and require the following information:

- Identify a knowledge gap text field
  - Staff will moderate and improve language, phone person to get clarity. Drive research and science traffic to site (e.g. Diversitas and Equator Initiative to start with)
- Download template
- Upload file attach

Staffing: Web portal staff will moderate and review submissions, help people make connections where needed, and publish responses to the request which are generated through the site.

11.11 Search Knowledge Library

This feature will allow users to search a Knowledge Library database which includes links to a range of collected, curated and categorized knowledge products of various types – including documents (PDF, Word, etc), categorized written site content, policy briefs, videos, webinars, slideshows and even categorized third party websites (see as an example: http://www.uncclearn.org/knowledge-platforms). Fuse IQ has used this multimedia model before for sites such as www.iknowpolitics.org and www.washingtonpolicy.org and recommend it over a more traditional library of documents.

Users can search the Library according to language, theme, IPBES assessment topic, keywords, country, region etc. (taxonomy terms used throughout the site). The Library will need to be prepopulated with content prior to site launch. Exciting possibilities exist to work with the holders of extensive biodiversity-related databases of links to open access journal articles to make these available through the BES-Net web portal. Web portal staff can also investigate opportunities for increasing access to other journal articles, for example, negotiating special terms in relation to special editions. Fields for inclusion are:

- Filter by topic of interest (from list of IPBES topics)
- Filter by country
- Search by keyword

Staffing: Web portal staff will continually research, collect and add documents to the library, including submissions by registered users. This will include a focus on work to maximize availability of published scientific articles, and the team will source abstracts, or write them in consultation with experts, where this is not possible.

D. Implementation of the strategy

1. Consultation with stakeholders

UNDP, working closely with t*he* Norwegian Environment Agency, and the United Nations Environmental Programme-World Conservation Monitoring Centre (UNEP-WCMC) is seeking to consult more widely on the proposed development of the BES-Net web portal outlined in the Strategy document. This includes consultation both with potential donors who may wish to contribute to resourcing the development of the portal, and key network participants who are currently developing capacity in the interface between science, policy and practice, and whose work can be showcased through the portal.

It is envisaged that network participants may include individuals and organizations from across the range of the three user groups identified in this Strategy and beyond, importantly including representatives of national governments – or particular ministries, divisions or units within them – which are Members of the IPBES Platform. Representatives of many government ministries and parastatals have expressed interest in participating, for example, from Mexico, India, Brazil, Germany, South Africa, Nepal, Chile, Ethiopia, Costa Rica, Korea, Kenya, Philippines, Egypt, Turkmenistan, Fiji, Sweden and Italy.

In addition, it will be critical to hold consultations with organizational network participants, including members of the secretariats of the organizations which participated in the BES-Net Capacity Building Network side-event at Bonn – including UNEP, FAO, UNESCO, CBD, UNCCD, UNFCCC, Ramsar, CITES, CMS, IUCN, GBIF, and the Stockholm Resilience Centre, as well as the IPBES secretariat itself. The feedback of members of ministries and secretariats on this draft strategy will be critical to establishing how the web portal can best serve their needs, contributing to synergies and avoiding duplication of efforts.

Internally in UNDP, it is proposed that an outreach be conducted through Heads of Environment in the Country Offices to all project managers of UNDP-managed biodiversity and ecosystems projects, financed by the Global Environment Facility and others, to invite them to engage with the portal. This will involve key individuals registering as network participants and examining how the portal can be used to help address science-policy-practice questions relevant to their projects and portfolios, for example, by using such features such as "Request a Policy Brief" and "Share New Findings". A similar outreach will be undertaken with environment advisors in Regional Bureaux, Regional Practice Leaders and Regional Technical Advisers. This kind of process could be followed by any organization wishing to engage with the web portal at multiple levels.

2. Oversight and staffing

Advisory committee

It is proposed that the development and operation of the BES-Net web portal should be overseen by a small and streamlined advisory committee, with representation by host partners, funders and – if deemed appropriate – the structures of IPBES (Plenary, Bureau, Multidisciplinary Expert Panel and Secretariat). At least in the establishment phase, it is proposed that the advisory committee should also include UNEP-WCMC and the Norwegian Environment Agency as key collaborators in the development of the concept for the portal.

It is proposed that the advisory committee would meet twice a year (at least once face-to-face, during an IPBES plenary meeting) to provide direction for the establishment and operation of the portal and its coordination unit, monitor and review progress, conceptualize its expansion and guide the process of leveraging further resources. As part of its monitoring role, the committee would address issues that arise in relation to quality control over material on the website, making themselves available for *ad hoc* telephonic meetings between the twice yearly committee meeting as necessary in order to help the coordination staff to resolve these issues. More detail on the proposed coordination of the portal on a day-to-day basis is provided in Section D, the Action plan for implementation, where it is proposed that a full-time coordination unit of the web portal be located in UNDP's Global Biodiversity Programme.

It is hoped that the dissemination of this document will engender feedback and further discussion on the above proposal for levels of involvement in the BES-Net web portal, and UNDP and partners will continue to consult widely on this.

Staffing requirements

Once sufficient resources are in place, a BES-Net coordination unit will be created and staff hired to manage the portal on a full-time basis, uploading content, moderating contributions from users, connecting up user requests with information and services, and producing new customized knowledge tools where relevant. It is proposed that the staff will be managed by a senior manager in UNDP's Global Biodiversity team, and the direction of the work will be guided by a technical specialist on ecosystems and biodiversity in the team. These two individuals will sit on the BES-Net Advisory Committee overseeing the unit's and portal's work and progress, in addition to representatives of funders, and, depending on consultations with IPBES, possibly also a representative of the IPBES secretariat. These proposals are all open for discussion and debate.

It is proposed that an ideal coordination unit would consist of four full-time staff members, and detailed draft terms of reference for these proposed posts are currently under construction:

- A **website coordinator** (with project management and website expertise) at the equivalent of UN staffing P3 level – who would oversee the operation of the portal, its hosting and technical requirements, liaison with network participants and the advisory committee members, reporting to donors, fundraising and recruitment for future development, updating of material on a daily basis and responding to requests, sending out of electronic newsletters, deisgn and implementation of monitoring and evaluation mechanisms, and commissioning of experts and liaison with stakeholders on responses to requests.

- Two **technical experts** (with technical science, policy and capacity building expertise) at the equivalent of UN staffing P4 level – who would be responsible for tracking policy and knowledge developments in the thematic areas featured on the site, accessing and making available to the administrator on a weekly basis material for uploading to the site – both links to existing material and writing of new material or summaries where appropriate, liaison with network participants and experts to facilitate responses to queries and requests, liaison with stakeholders on the conceptualization and development of e-learning modules, development of content for newsletters, engagement with users, experts and the advisory committee to input into debates, help to facilitate dialogue and to resolve differences where necessary.

- An **administrator** (with financial and administrative expertise) at the equivalent of UN staffing G6 level – who would see to all the administrative needs of the web portal's operation, guided by the coordinator and the advisory committee, including staffing, budgeting, procurement, contracting, payments, reporting, liaison, communications, sending out of electronic newsletters, troubleshooting technical problems, overseeing databases and registration details, responding to queries from users and facilitating connections between users, network participants and other portal staff members.

The coordination unit staff will also work to draw in the services of a large circle of regular contributors from amongst the network participants, updating information and uploading content on a daily basis. In addition, a network will be created of volunteer experts on specialized topics and themes, with "guest experts" volunteering to answer questions on a particular theme for a specified and limited period of time. At this stage it is proposed that the core staff members be recruited and hosted by UNDP, with their work guided by a BES-Net Advisory Committee made up of representatives of hosts, donors and other key players. This committee would meet twice a year, at least once of these times face to face, to guide the work of the portal.

The basic structure of the website could be established in early 2014, with the architecture created for additional content to be added over time. As resources for the development and expansion of the web portal are leveraged, website modules can be developed and added. This has the advantage of being able to draw in the participation of donors and partners who have a special interest in a particular theme related to their own work and investment.

Costing estimate

Below is an estimate from Fuse IQ from April 2013 of the potential costs involved in the technical development of hosting of the BES-Net web portal. These will be combined with potential staffing costs in order to reach an estimate of the combined total costs and budgetary requirements for the portal.

Box 3: Estimate for Development of the BES-Net Web Portal

Project Phase	Hours	Cost*
Discovery & Requirements	50-60	$6,750-$8,100
Proof of Concepts	450-600	$60,750-$81,000
Visual Design	70-85	$9,450-$11,475
Website Completion	175-215	$23,625-$29,025
Testing & Quality Assurance	45-60	$6,075-$8,100
Project Management	40-50	$5,400-$6,750
Total	830-1070	**$112,050 - $144,450**
Hosting / Yr. (est.)	-	$5,000-$10,000
Year 1 Maintenance & Enhancements (est.)	-	$40,000-$80,000
Year 2 Maintenance & Enhancements (est.)	-	$30,000-$60,000

*Based upon a rate of $135/hr.

The process of developing the website is summarized in the graphic below, and has been used by Fuse IQ as the basis of the costing exercise.
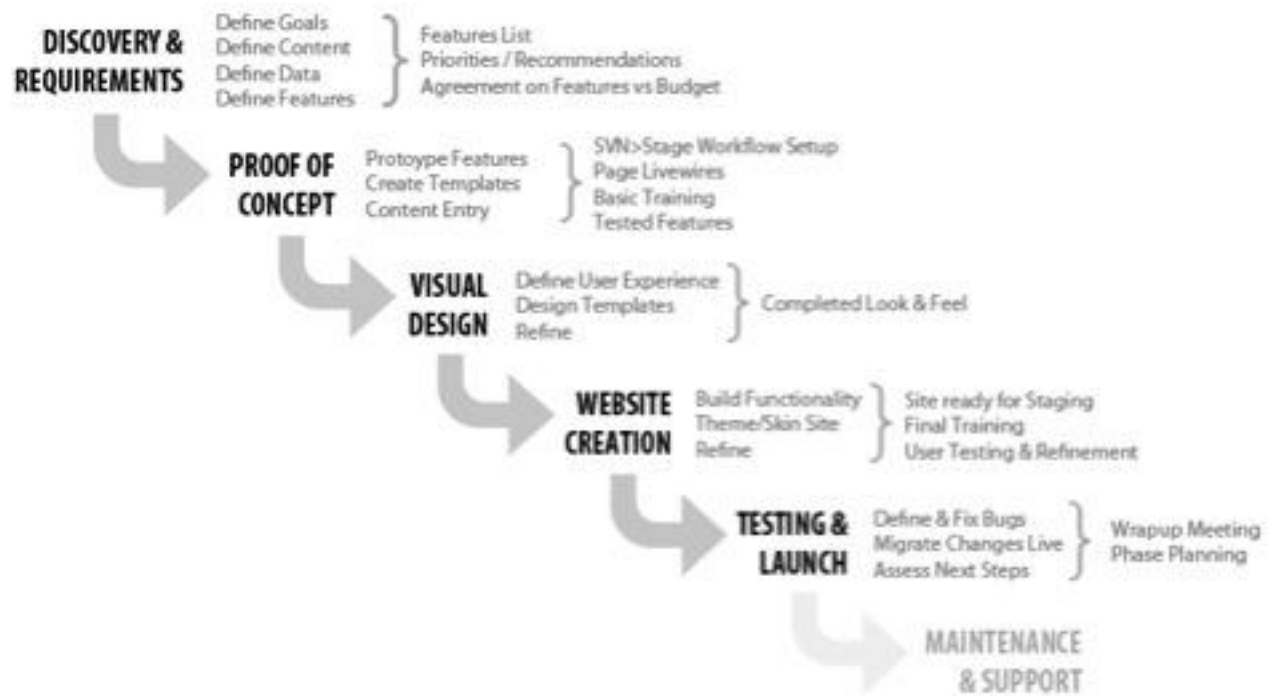
Annex 1: Background Information

A. Establishment of the IPBES Platform

Biodiversity from terrestrial, marine, coastal, and inland water ecosystems provides the basis for ecosystems and the services they provide that underpin human wellbeing. However, biodiversity and ecosystem services are currently in decline at an unprecedented rate, and in order to address this challenge, adequate local, national and international policies need to be adopted and implemented. This is the background to the establishment of IPBES – to achieve this, role-players agreed, decision-makers need scientifically credible and independent information that takes into account the complex relationships between biodiversity, ecosystem services, and people. They also need effective methods to interpret this scientific information in order to make informed decisions. The scientific community also needs to understand the needs of decision makers better in order to provide them with the relevant information.

A paper by the Institut du Développement Durable et des Relations International (IDDRI) analyses the new conditions in which the need for such a platform has emerged: "Over the last two decades, our understanding and framing of the biodiversity issue has shifted from an approach focusing primarily on species, habitats and conservation, to a holistic approach focusing on conservation and sustainable uses of biodiversity and ecosystem services. This shift has created new challenges both for understanding and for policy-making. In particular, it generates the need to reinforce the knowledge and support available to decision-makers in a manner adapted to the characteristics of the issue – i.e. complexity, multiple causalities, multiple scales and cross-sectorality – and to our governance and policy ambitions."[21]

Following seven years of intergovernmental negotiations[22], the "Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services" (IPBES) was established by the international community in April 2012. IPBES is an independent intergovernmental body open to all member countries of the United Nations. The members are committed to building IPBES as the leading intergovernmental body for assessing the state of the planet's biodiversity, its ecosystems and the essential services they provide to society. The first official plenary of the Platform was held in Bonn in January 2013, with over 100[23] member governments and a range of civil society stakeholders in attendance. The plenary elected a Bureau, its Chair, and a Multidisciplinary Expert Panel to guide the platform's assessment and related work.

IPBES provides a mechanism recognized by both the scientific and policy communities to synthesize, review, assess and critically evaluate relevant information and knowledge generated worldwide by governments, academia, scientific organizations, non-governmental organizations and indigenous communities. This involves a credible group of experts in conducting assessments of such information and knowledge in a transparent way. Throughout the process of establishing IPBES there has been a strong emphasis on strengthening capacity for the effective use of science in decision-making at all levels. IPBES also aims to address the needs of Multilateral Environmental Agreements that are related to biodiversity and ecosystem services, and build on existing processes ensuring synergy and complementarities in each other's work.

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[21] Van den Hove, S. and Chabason, L. (2009) "The Debate on an Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES): Exploring gaps and needs". Ideés pour le debáts, No. 01/2009/ Governance. IDDRI.

[22] This includes the consultative process towards an IMoSEB (International Mechanism of Scientific Expertise on Biodiversity) from 2005 to 2008, building on the Millennium Ecosystem Assessment, and leading to the initiative to create IPBES. For more detail on the history, see http://www.ipbes.net/about-ipbes.html.

[23] The number of member countries stood at 108 in April 2013 – for a list, see the IPBES website at the following page – http://www.ipbes.net/about-ipbes/members-of-the-platform.html.

B. Capacity building for IPBES

Since 2008 there have been repeated calls from Governments, particularly those of developing countries, for a collective commitment to ensuring that the emerging IPBES Platform has a strong focus on capacity building[24], as expressed in a number of IPBES fora and discussion documents.[25] The need has been frequently expressed to build upon and go beyond the experience of the Intergovernmental Panel on Climate Change (IPCC) in this regard, including building on the lessons from its Scholarship Programme[26].

The Busan Outcome, agreed by Governments at the third ad hoc intergovernmental and multi-stakeholder meeting on IPBES in June 2010, set out this clear intention when it resolved to "prioritize key capacity building needs, provide and call for financial and other support for the highest priority needs related directly to the Platform's activities, as decided by the plenary, and establish a forum to catalyse financing for such capacity building activities"[27].

A document presented to the Panama plenary of IPBES in April 2012 on the "Possible elements of the work programme of the platform" pointed to the need for capacity building to be an integral component of the platform's work programme, to support assessment and knowledge generation and underpin the formulation and implementation of policy, as a cross-cutting activity for the platform. In particular, the document suggested, capacity building is necessary for:

a) Building the capacity of scientists and institutions in developing countries, which will be essential in increasing the availability and use of science in decision-making at all levels, and in ensuring that the contribution of knowledge to assessments becomes more geographically balanced;
b) Promoting and supporting sub-global (including national) assessments which could draw on common methodologies and approaches, and take advantage of existing experience, contributing both knowledge and experience to the global, regional and thematic assessments that the platform might undertake; and
c) Providing access to and building capacity to use policy support tools and methodologies, and improving access to data, information, scientific literature and knowledge relevant to both assessment and development and use of policy tools and methodologies.[28]

The Busan Outcome also requested collaboration between UN organizations in support of IPBES, including a special role for UNDP in supporting capacity building. At the first session of the plenary meeting to determine modalities and institutional arrangements for IPBES held in Nairobi in 2011, representatives of Governments welcomed the interest expressed in supporting the proposed platform by UNEP, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Food and Agriculture Organization of the United Nations (FAO) and noted the interest of UNDP in the proposed platform and "the important role of

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[24] It is acknowledged that many stakeholders prefer the term "capacity development" to "capacity building" as it is sometimes argued that the former term implies a greater degree of agency and pre-existing capacity by those whose capacity is increasing through the process. The term "capacity building" has, however, been used throughout the IPBES process, and is used in this document, with the understanding that it implies a process of building on and developing already existing capacity.

[25] For example, the 1st IPBES meeting Putrajaya 2008, 2nd IPBES meeting Nairobi 2009, GRULAC paper on capacity building 2009, 3rd IPBES meeting Busan 2010, Statement from LMC, GRULAC and African Group 2010, Capacity building meeting Trondheim May 2011, First Session of the Plenary Nairobi 2011.

[26] The IPCC Scholarship Programme aims to build capacity in the understanding and management of climate change in developing countries by providing opportunities for young scientists from developing countries, particularly Least Developed Countries and Small Island Developing States, to undertake studies that would not be possible without the intervention of the Fund..

[27] See annex to 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" at http://www.ipbes.net/resources.html.

[28] UNEP/IPBES.MI/2/2, para 36

that organization in capacity-building within the United Nations system"[29].

The first official IPBES Plenary, held in Bonn in January 2013, requested UNEP, UNESCO, FAO and UNDP to establish an institutional link with the Platform through a collaborative partnership arrangement for the work of IPBES and its secretariat; and requested UNEP to provide the Platform's secretariat, accountable to the IPBES Plenary on policy and programmatic matters[30]. The Bonn Plenary also requested the newly elected Multidisciplinary Expert Panel and Bureau to develop a draft work programme for 2014-2018 with a sequenced and prioritized set of objectives, deliverables, actions and milestones for advancing the four functions of IPBES (assessment, knowledge generation, policy support and capacity-building) at relevant scales, taking into account information gathered by the secretariat, including a compilation of inputs by Governments and other stakeholders on capacity-building needs[31] during the intersessional period.

The "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"[32] identified needs and potential means of addressing these, as follows:

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

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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

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[29] UNEP/IPBES.MI/1/6, Annex III, Section I, page 15.

[30] IPBES/1/12, Annex V.

[31] IPBES/1/INF/10

[32] IPBES/1/INF/10

Annex 2: Suggested principles for capacity building

- **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.

- **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.

- **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 organisations, and entire societies or enabling environments; and facilitating interaction between these three levels to bring about meaningful and sustainable change.

- **Capacity building must be demand-driven** – it is important that scientists, policy-makers and practitioners help to shape interventions to meet their own capacity needs 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.

- **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.

- **Capacity building must be targeted and focused** –any new capacity building interventions need to take account of what is already being done and identify very specific strategic gaps that need to be filled. Depending on the relationship with IPBES, interventions may be explicitly linked to the work streams and emerging priority themes of the Platform, so as to avoid duplication and maximize the effective use of any new resources generated.

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

- **Capacity building is collaborative and cumulative** – no individual intervention can hope to succeed on its own. New interventions 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 and maximize synergy through a "network of networks".

- **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 Aichi Biodiversity Targets of the CBD Strategic Plan 2011-2020

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.

Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.

Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use

Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services

Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Target 16: By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.

Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

Target 20: By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.

Annex 4: Technical variables

This annex highlights recommendations by Fuse IQ on a number of technical issues – creation of user profiles, the website's Content Management System, specifications for hosting, translation into other languages, mobile applications, web analytics, integrated taxonomy, categories of information, and suggests an initial proposed site map.

1. Creation of user profiles

Any casual user of the web portal will by default be able to freely access materials, resources and information (although only open access journal article will be uploaded on the site, with other journal articles being represented by abstracts and information on how to access them). Tools will be put in place that will allow a very simple registration that will enable users to interact in additional ways, such as commenting on and rating content, and requesting BES-Net services. Further profile creation will enable deeper interaction with the site through contributing papers, video, documents and more. Users will also be able to view other registered user profiles on the site and make connections.

A customized user dashboard based on the extended profile (see Section 11 below) will provide a personalized experience that lists service requests, contributions, favorites, followed users, listings of new contributions per favourite and achievements such as completion of e-learning modules. Users will also be able to check their preferences on how they would like to keep informed by BES-Net whether it is through social media, newsletters or direct contact by email.

The result will be a multifaceted portal that can be interacted in a number of ways, ways that are preferable for each individual user (or the organization or team they represent), which will motivate users to interact and contribute regularly to build capacity at all levels with all targeted audience types.

2. Content Management System

Fuse IQ recommends using open-source technologies for developing the BES-Net Web portal, and sees Drupal as an excellent content management system (CMS) that will fulfill the technical features and functionality for present and future iterations as the portal grows and evolves. Drupal is utilized on millions of sites and can be scaled and customized (through module development) easily. There are also hundreds of thousands of Drupal developers across the globe so technical assistance should be easily found, especially with UNDP extensively using Drupal for many of its sites.

3. Hosting

The final BES-Net Web Portal specifications will determine hosting requirements and be dependent on the features included in the initial release, future features and anticipated traffic. Nearly all the recommendations below can be scaled up as needed. Based on projects of similar size and scope Fuse IQ believes the following are options:

a) A cloud-based (dedicated) managed hosting configuration, such as Rackspace or Acquia. Costs vary from $2,000-$20,000 per year depending upon the service level agreement (SLA) involved, the nature of the CPU, the RAM required and output of the service.

b) A virtual private server (VPS) that could be managed by the hosting company, meaning BES-Net is not responsible for managing the server. With a Service Level Agreement costs can range from $600-$1,500 per year depending upon the SLA, CPU, RAM and output of the VPS.

c) A true dedicated server – a physical box that is dedicated to your site alone; SiteGround, MidPhase are two such suppliers. Costs vary from $1,500-$4,000 per year depending upon the SLA, CPU, RAM and output of the service.

Although there are many options to choose from, there are several criteria based on which the final hosting selection should be made:

- Features, future features and anticipated traffic – these will determine the power needed (CPU, vCPU, or ECU), the RAM, and storage needed.
- Familiarity with the hosting company – without familiarity there may be increased costs in setup and optimization, a decrease in confidence in which package to use and decreased reaction time due to inefficiencies caused by the unfamiliarity.
- History of the hosting company with the type of technology and scale of the Web solution being hosted – whether the final product is created using Drupal or another technology, it is important that the hosting company has experience in successfully hosting large multi-faceted portals.
- Service Level Agreement – the BES-Net team will be focused on the day-to-day activities and it is undesirable to spend time managing the server; the SLA should be such that it covers the upkeep of the server 24/7. This can take the form of active management where dedicated hosting staff is monitoring the server, or passive management where a ticketing system or phone number can be used to readily access the IT staff of the hosting company for support.

Based on their experience, Fuse IQ recommend Rackspace or Acquia. Each meets the criteria above, especially if the final product is build using Drupal as recommended.

4. Language translation

The feasibility was explored of the option for all content pages to be available in the five UN languages through manual, human translation services: Arabic, Chinese, French, Russian and Spanish. Although this would increase the accessibility of the site, it would be very costly and time-consuming, as it would need to be done on an ongoing basis, every time new content was uploaded to the site. For this reason, Fuse IQ recommends using the Google Language API and a Translate This button (Google Translate) which allows users on the front end to select the language in which page content is displayed. Google manages the translation of the rendered content – the content can thus not be modified or quality controlled by BES-Net Web Portal staff, and it is done automatically by computer which means translation is not perfect.

Documents can be uploaded in any language and tagged with a language so that a user could, for example, search for all articles in French. Specific translations of key documents or of products developed specially by the BES-Net staff for users on demand, could also be considered. The Knowledge Managers and BES-Net team will need to monitor and assess if there is a need for translation of document library attachments outside of this feature. At this juncture and for the initial launch Fuse IQ recommends Google Translate for all sections of the site with rendered content unless it becomes clear that demand for full translation justifies the expense that would be involved

5. Mobile applications

Building a separate mobile site with a targeted subset of functionality and content was considered, and could prove beneficial based upon user insights and documented needs. At this time, however, Fuse IQ recommends choosing a website theme that supports responsive web design (RWD) and not developing a separate mobile application for users to access the site by smartphone. Developing the BES-Net platform using a responsive web design will allow for content to be displayed effectively across different screen sizes and facilitates different content breaks depending on the width of the screen size. During the stakeholder interview process most people acknowledged the use of mobile phones and tablets among site users, however, the interviewees recommended building a desktop application first and then working towards a mobile release as part of a second phase, if there is a demonstrated need and sufficient funding. Creating a RWD can cost 15%+ more than a "desktop" (traditional) build, but maximizes usability by users with a range of forms of technology.

6. Web analytics

There are a range of tools and services providing website statistics, Google Analytics as the "gold standard" and providing a free service to create an account and get started. Once an account is set up there is an opportunity to set up custom reports that are automatically sent via email each month to help monitor site traffic and trends. Prior to launching the BES-Net Web Portal there needs to be a conversation around reporting and statistics with the staff to determine which data points to monitor over time. For example, Fuse IQ's experience has shown that organizations hosting large and complex sites of this nature, with capacity development goals, are typically interested in tracking:

- Entry by user group type
- Entry point and path
- Location of users
- Referring URL
- Language
- Number of unique new visitors
- Number of unique page visits
- Number of new vs. returning users
- Number of bounces
- How frequently or recently users return
- Duration or length and depth of visit
- Keyword search traffic
- Top content traffic usage patterns
- Download amounts and by whom
- Traffic from social channels.

Google Analytics can attend to the majority of these needs but not all – funders and site planners need more information by user type than what is available "out of the box", for example. Depending upon the final technical solution, there are methods that can be employed to add additional triggers that will enhance the reporting capabilities. If custom code is inserted for statistical reporting, methods can also be discussed for issuing reports through the system.

7. Integrated taxonomy

One feature that will pull all the content of the site together will be an integrated taxonomy and tagging system or ITTS. The ITTS will need to be strategized at the foundational level and the technical solution – the content management system (CMS) – will provide the means for BES-Net staff to update the ITTS terms and tags.

All content types will be classified through the ITTS so the CMS can semantically provide natural connections between other content types. For example, as one finds a resource the tags and meta information provided may link the user to other content types that share that topic, such as a video, Policy Brief or Case Study.

Registered users may opt to provide information about themselves and the list of profile options will be integrated into the ITTS as well, thus linking users to tags and lists of other users that share an interest. With a properly strategized and implemented ITTS, BES-Net will allow an immersive experience that will allow natural exploration according to the user's preferences, which will be very powerful for adoption and continued use.

8. Categories of information

The categories listed below were discussed during the development of the demo model. Additional categories and terms can be applied and revised as needed with little technical difficulty.

- Focus Areas / Themes
  - Restoration
  - Pollination
  - Land Tenure
  - Traditional Knowledge
  - Drylands
  - Resilience

- Type
  - Video
  - Policy Brief
  - Newsletter
  - Presentation
  - Webinar
  - eLearning Module
  - Expert Response
  - Knowledge Gap
  - Science Document
  - Case Study
  - Support Tool

- Country
  - Drop down list of countries A-Z

- Audience
  - Scientist
  - Policymaker
  - Practitioner

The web portal staff will moderate the content and discussions on the site. This regular review will allow them to make decisions on whether a new taxonomy term or tag will need to be added to the ITTS.

9. Proposed Site Map

The following high-level outline represents the page structure presented in the demo model. This will be further developed during the phase of developing the full web portal.

- HOME
  - Primary
    - Share New Findings
    - Add a Video to Bridge the Gap
    - Survey Practitioners
    - Connect with Relevant Ministries
    - Search Policy Briefs
    - Share a Policy Support Tool
    - Ask an Expert
    - Identify a Knowledge Gap

- Search Document (Knowledge) Library
- Request a Policy Brief
  o Secondary
    - About
    - Partners
    - News
    - Events
    - Contact
    - Member sign-in

10. Use of social media

This feature will enable users to stay informed and connected with BES-Net using established social media channels. Based on the interviews, we anticipate that all of the key user groups will include some people who are regular users of social media and will be interested in this feature.

- Link to Twitter
- Link to Facebook
- Link to YouTube
- Link to subscribe to site RSS feed

Drafting and posting content to these social media channels could be a part of the day-today functions of one of the web portal staff members.

Annex 5: Terms of reference for development of the BES-Net web portal

Title: Website design and development consultancy
Location: Home-based
Responsible unit: Equator Initiative (Biodiversity Global Programme)
Assignment: TBD
Direct supervisor: Eileen de Ravin, Manager of Equator Initiative, and Caroline Petersen, Technical Ecosystems and Biodiversity

BACKGROUND

UNDP is working with partners UNEP-WCMC and the Government of Norway to respond to calls for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), formally established in April 2012, to include an effective capacity building programme in the science-policy interface.

UNDP will be focusing on developing web-based capacity building tools for scientists, policy-makers and practitioners, including local implementers of the three Rio Conventions and other multilateral agreements relating to biodiversity and ecosystem services. This will tie in with the development of face-to-face mechanisms for capacity building in all the work streams of IPBES, including assessments, knowledge generation, access to data and information, and policy-relevant tools and methodologies. For example, development of online policy briefs would draw on IPBES-related events and network activities including, dialogue sessions on key themes prioritized by IPBES. Similarly, access to policy support tools through the web portal could be facilitated through collaboration amongst the communities of practice working on, being trained on and using the tools. *Web-based tools will aim to build the capacity of policy-makers and implementers to incorporate best available science into policy-making and implementation, as well as the capacity of scientists to communicate effectively with policy-makers and implementers and understand their needs.*

*A key element of this will be the development of a cutting edge capacity building web portal during 2013, to be named BES-Net (*Biodiversity and Ecosystem Services-Network). The BES-Net web portal will be *hosted by UNDP's Biodiversity Global Programme from 2013-2020, facilitating capacity development through "live" information and knowledge exchange between the three key IPBES constituencies: scientists, policy-makers and those communities, community-based organisations, non-governmental organizations, local governments, UN agencies and others involved in implementation of biodiversity and ecosystem services work on the ground.*

Full-time moderation of the web portal by UNDP will facilitate interaction among participants and ensure effective management of the web portal, which will take the form of a website linked to the www.ipbes.net website and multiple other partner and stakeholder sites, as well as a mobile phone site designed to accommodate a range of degrees of access to technology. The full web portal will aim: to increase access to existing policy-relevant tools and guidance materials; to facilitate data access and sharing in relation to assessments; to promote and increase open access to publications and data; to support individual learning, peer-to-peer learning and communities of best practice; and to support policy-makers and practitioners to translate scientific information into effective policies and actions.

This will include making basic information available on a range of themes, and more in-depth information on a set of key themes, as these emerge through the IPBES work programme. Options for cost-effective translation into key UN languages will be explored. Online space will be provided for users to upload and share information, documents, photographs, video and audio. Online discussion forums will enable policy-makers and implementers to pose questions and research needs, and moderators will link them to available

resources. Such forums will also enable sharing of best practice around the translation of scientific findings into policy-relevant messages, successful influencing of policy formulation and effective policy implementation. Links will be provided to relevant journal articles, abstracts and policy documents, and to data, information, tools and methodologies available from partners. Briefs will be developed and posted on the site, providing summaries of scientific findings on key themes, as well as community briefs to policy-makers, drawing on diverse knowledge systems including traditional knowledge. Links will be provided to online training courses and e-learning modules, and new modules will be developed on key IPBES themes.

From September 2012 through February 2013, a Strategy and Prototype was developed to explore and review conceptual ideas and possibilities. These were reviewed by potential participating organizations and received very positive feedback and support. This work was performed with Fuse IQ, a website design and development consultant. A full strategy document and prototype (a simple HTML mockup) was created and will be available for the implementation consultant. The technology platform we have identified that will best supply the functionality, ease of maintenance, scalability, flexibility and longevity of the Portal is the Drupal open-source content management system.

Purpose and Scope of Consultancy

UNDP is currently seeking the services of a web design and development consultant to develop the (Biodiversity and Ecosystem Services) *BES-Net Web Portal* during a nine-month period (dates tbc). We expect a complete draft, or Beta, to be created within six months and final product by the end of nine months.

The consultant will work with a small team from the Biodiversity Global Programme, guided by a steering committee with representatives of all three partners. The consultant is expected to be able to manage long distance communications and coordination of the design and development of the BES-Net Web Portal with the international BGP team, and attend at least two face-to-face meetings throughout the engagement.

The scope of the consultancy will consist of leveraging the existing work created in the Strategy and Prototyping stage with Fuse IQ and taking the next step of designing and developing the actual product for the immediate term, as well as the long term evolution of functionality and features based upon periodic user surveys and feedback.

Internal Capacities

This project will be led by a project manager from the UNDP team that will relay information and funnel decisions. The staffing for the Portal, once live, will consist of 3-4 Knowledge Managers that will be trained on managing the day to day activities of the new system. The Knowledge Managers will add and edit content, moderate submissions and collate content resources.

Audiences

We have identified three distinct user target groups to help with their capacity building through the Portal: Practitioners, Scientists and Policymakers.

- *Practitioners*: Practitioners (implementers) are community members who work on UNDP projects, members of non-governmental organizations (NGOs) and other community members who work with intermediaries to define and manage biodiversity and ecosystem challenges at the local level. This includes individuals involved in implementation of biodiversity and ecosystems services work on the ground. Practitioners may be looking for training, workshops and seminars, knowledge sharing among stakeholders and agencies, or perhaps seeking to inform research for policymakers,

- *Scientists*: Scientists are broadly described as knowledge managers and can be either academic scientists or traditional holders of knowledge generating new knowledge. This includes natural and social scientists as well as people on the ground, creating and maintaining biodiversity. (We acknowledge that indigenous, traditional, local, scientific and other knowledge systems of valid and useful knowledge contribute to the sustainable management of ecosystems.) Scientists are looking for funding, access to ecosystems assessment data, shared expertise including across countries, lessons learned and ways to increase capacity.

- *Policymakers*: Policymakers are broadly defined as government staff, at different levels, and advisors who write policy. They advise governments and practitioners. One function is to identify and prioritize key scientific information needed for policymakers at appropriate scales and catalyze efforts to generate new knowledge by engaging in dialogue with key scientific organizations and funding organizations. Policymakers need assistance to demystify the science and understand at a high level the concepts and findings presented by Scientists. They are key players who take what research demonstrates and introduce it to decision-making systems.

Outcomes and Features

The result of this consultancy will be the launch of a web-based Portal that best targets the goals of UNDP and its partners as outlined in the Strategy and Prototyping stage and any new findings from the chosen consultants Discovery phase. The major components that have been identified as crucial features are:

a. *Integrated Taxonomy and Tagging System*: One feature that will pull all the content of the site together will be an integrated taxonomy and tagging system or ITTS. The ITTS will need to be strategized at the foundational level and the technical solution – the content management system (CMS) – will provide the means for BES-Net staff to update the ITTS terms and tags.

   All content types will be classified through the ITTS so the CMS can semantically provide natural connections between other content types. For example as one finds a resource the tags and meta information provided may link him/her to other content types that share that topic, such as a video, Policy Brief or Case Study.

   Registered users will be encouraged to provide information about themselves and the list of profile options will be integrated into the ITTS as well thus linking users to tags and lists of other users that share an interest.

b. *User Profile, Dashboard and Personalization:* This feature will allow users to enter a brief profile, optional information about who they are, information about their work and how they think it has already been / could be used by others, e.g. my community did this which other communities could try. Any User will be able to create a Profile; the Profile will be available to them to edit upon login.

c. *Social Media*: This feature will enable users to stay informed and connected with BES-Net using established social media channels. We anticipate BES-Net and partner feeds published on the Portal, including Facebook, Twitter and YouTube.

d. *Share New Findings*: This feature would allow users to post their new research findings, both in the form of a summary or an abstract, as well as the full document. Upon approval by the Knowledge Manager or Site Administrator uploaded data would be made available in a research library and on a 'latest news' board. We anticipate Scientists and Practitioners would share new findings and Policymakers would be interested in the reports.

e. *Add a Video to Bridge the Gap*: This feature would allow users to upload a short video or Photostory of them describing the nature and scope of their work and why it will be of relevance to the other user groups and communities. Guidance would be given on limiting the video comments to an "elevator pitch" format. We recommend videos be developed and added to the site prior to launch. This also implies a need for a Video Library with video content categorized and tagged.

f. *Survey Practitioners*: This feature would allow users (in this case, scientists and policy makers) to poll practitioners on a certain question or issue, putting out a topic or question to vote or comment on. This may be a task for the Knowledge Managers to solicit polls and get the appropriate audiences to respond. It may or may not be an online feature.

g. *Connect with Relevant Ministries*: This feature will allow scientists or practitioners to connect with policymakers in specific national ministries or line ministries across all CBD Parties through a process moderated by BES-Net staff. This would necessitate a searchable database of Ministries where a user searches and selects a Ministry to connect to.

h. *Search Policy Briefs*: This feature will allow users to search the Policy Brief Library database according to IPBES topic, keywords, select themes, country, etc.

i. *Share a Policy Support Tool*: This feature will allow users to post and disseminate a policy support tool or a link to a website where a tool can be found, for example, a new database, an indicator set, a GIS tool etc.

j. *Ask an Expert*: This feature will allow users to pose a question to individuals listed on a roster of "experts" (who can be practitioners, scientists, traditional knowledge holders, or policymakers) who agree to sign up. Questions are reviewed / moderated by BES-Net staff first so the experts' time is not wasted, e.g. answers may already be on the BES-Net site.

k. *Identify a Knowledge Gap*: This feature will allow Policymakers and Practitioners to request the support of the science community in conducting research on an issue of relevance to them. (BES-Net staff will match-make, where possible). Knowledge Gaps will be displayed on the site.

l. *Search Document Library*: This feature will allow policymakers and practitioner users to search a Document Library database according to IPBES topic, keywords, select themes, country, etc. (taxonomy terms used throughout the site). The BES-Net team will work to maximize availability of articles, and will provide abstracts where this is not possible.

m. *Request a Policy Brief*: This feature will allow users to commission a policy brief based on experience of implementation on the ground or best available research and/or traditional knowledge on a certain issue according to IPBES topic, keywords, select themes, country, etc.

n. *Thorough user analytics and reporting*: We anticipate Google Analytics with additional custom tracking methods. Alternate recommendations are welcome. Example data points that should be tracked and reported on are:

- Entry by user group type
- Entry point and path
- Location of users
- Referring URL
- Language
- Number of unique new visitors
- Number of unique page visits

- Number of new vs. returning users
- Number of bounces
- How frequently or recently users return
- Duration or length and depth of visit
- Keyword search traffic
- Top content traffic usage patterns
- Download amounts and by whom

o. *Powerful Search*: This site will be very content-heavy. Content will also include a wide variety of types such as Excel, PDF, video, audio, Word, PPT. The Search tool will need the ability to search within various types of documents and at a minimum Word and PDF. The Search tool will need to filter based upon taxonomy and or other defined categories. The Search tool should be an easy to use field to create a very low barrier of use yet also have advanced features for the more tech-savvy.

p. *Responsive design*: Though we cannot anticipate all user interface needs we believe a responsive web design (RWD) may be the best option for the multiple types of devices users will use to access the Portal. We also understand RWD has its limitations and may not be the best option for forms input. We anticipate discussing mobile options including cost and maintenance implications.

q. *Feedback Tool(s)*: The success of this evolving platform will depend upon regular feedback from users. This will take the form of in-person conversations, surveys and allowing users to easily provide feedback through forms presented on the Portal. We anticipate discussing the viability of tools such as UserVoice and/or implementing feedback modules.

PROPOSAL STRUCTURE

Please respond to each section as ordered in your proposal. Provide enough information you believe is needed to describe your response to the technically adept as well as the neophyte.

Identify your firm

Please provide the following information.

- Name of your company
- Business entity (e.g. LLC, S-Corp, Independent, etc.)
- Type of company (e.g. Marketing and Design Firm, IT, Software Development, etc.)
- Location(s) of operation
- Names of Owners and Executive Management
- Primary Contact for this project proposal
- Years in business
- Average number of new clients per year
- Average number of maintenance/ongoing work clients per year

NOTE: If you plan on *partnering* with another firm as part of your proposed solution, please provide the above information for your partner plus a paragraph or two describing the partnership relationship, including:

- The roles of each firm
- How many projects you have completed together and who was responsible for what
- Management and decision structure
- Any additional information that describes the added-value of the partnership to the success of the project.

Qualifications

Help us understand who you are and what your strengths are.

- Please describe your core competencies.
- Describe why this project is attractive to you and why you believe your firm would be ideal for its success.
- Provide 3-5 examples of similar projects you have been instrumental in creating.
- If you have worked for UNDP or any of its partners please make sure to highlight that work.

Technology

Describe your experience with Drupal, how many years you have been using it as a CMS solution, your ability and experience creating custom modules, and your general capabilities with this platform, etc. *NOTE*: As mentioned above, the technology platform we have identified that will best supply the functionality, ease of maintenance, scalability, flexibility and longevity of the Portal is the Drupal open-source content management system. If you propose an alternate CMS please provide a compelling argument for it.

Features

Please describe how you anticipate meeting the functionality Outcomes and Features as described above. Including your ideas regarding the overall data model and architecture of the Portal, what contributed modules you anticipate may directly address the functionality needs, and where you anticipate the need to create custom modules/functionality.

Hosting

Please make hosting recommendations including monthly costs, control panel options, managed server options, redundancy options and backup services. We believe a virtual private server (VPS) would be a minimal solution and are interested in a cloud or dedicated solution given the anticipated traffic and number of concurrent user sessions.

Process and Timeline

Please provide a thorough description of the process your firm will follow to achieve BGP's goals with the Portal. Describe the stages and timeline for the design and development of the BES-Net Web Portal your company will follow and have used for projects of a similar scope, including the deliverables for each stage.

We anticipate the following general process that will allow us the best environment for the creation of the Portal:

a) *Discovery & Requirements*: A process for reviewing existing strategy and requirements documents; determining meta architecture and technology; assessing and auditing current and anticipated content and assets; refining features and prioritizing; final agreement on features for the initial release; define general workflows for key functionality through wireframes and/or workflow diagrams.

b) *Proof of Concepts*: Setup of the CMS on a Stage server with standard content types; creation of taxonomy and tagging elements; protoyping key features and functionality with review and refinement; training for content input.

c) *Design*: Refine the user experience through wireframing as needed; define the aesthetic through brand requirements and market-appropriate aesthetic sketches; refine design of major templates.

d) *Site Completion*: Apply the design (theme) to the build; refine user experience and functionality; create all templates; provide training needed for content input and ancillary page creation as well as site and user management.

e) *Quality Assurance*: Provide a rigorous quality assurance testing phase which tests functionality and browser compatibility on various devices; provide an issue reporting tool for input and management of issues.

f) *Launch*: Provide a launch plan including team contribution requirements; launch live.

g) *Follow-on Work*: Wrap-up meeting for this phase and planning for next steps.

Management and Quality Control

Please describe your management hierarchy and staffing structure and how staff assigned to this project will interact with the UNDP Global Biodiversity team. Describe the quality control tools and procedures you will put in place. Define roles and staffing you require from the UNDP Global Biodiversity team.

Additional Technical Requirements

- Make recommendations to provide for high response and upload/download times for a wide performance range of computers used and for users to see an estimate of download times for different connection speeds for each item that will be available for download on the site; make provision for web analytics tools to monitor website usage and traffic.
- Design parameters: Clean Layout, Quality Graphics and Design, Simple Navigation, Fast Graphics, Quality Content, Universal Browser Compatibility, Strong Content Search Capabilities; website, intranet and database analytics; use of Web 2.0 technology; clear Information Architecture, taxonomy and hierarchy for website, intranet and database; possibility for meta tags and bookmarking.
- Accessibility/Usability: The online system should follow accessibility and usability standards so that it can be accessed and used by partners uploading content and links without delays or compatibility issues. Some standards include: good semantic markup, small page sizes, efficient and meaningful link structure, meaningful graphics and no graphics as text, small amount of JavaScript or flash and have completely separate content (semantic code) and presentation (CSS) when designing the system.

Information on Working Modalities

The consultant needs to be fully connected via Internet, email and telephone, so that all of the tasks can be conducted via electronic means. The selected company will be office or home-based and possess the necessary communications facilities at their own premises, and will cover all the costs involved in the assignment themselves. The consultants will be expected to meet with the team at UNDP Headquarters in New York in person once at the beginning of the process and once mid-way, and to provide regular updates by phone / Skype / email periodically during the assignment or as needed, at no additional cost for the BGP.

Qualifications and Experience

- Excellent visual communications, graphic design and web development skills, including typography, layout, color, user interface and navigation
- Knowledge of Photoshop, Illustrator, Acrobat, MX Flash, and other graphics applications;
- 10-15 years of professional experience in website and graphic design for development organizations
- Previous experience with UNDP is helpful
- Strong logo/property and banner development skills

• Knowledge of Drupal CMS, HTML, DHML, VB Script or JavaScript and open source languages

• Understanding of the underpinning of the web development process

• Basic knowledge of IPBES (see www.ipbes.net) and familiarity with UNDP

• Experience in project management

• Extensive experience in analyzing, developing, testing and launching websites

• Ability to work under pressure to meet deadlines, and to undertake problem solving independently while in close coordination with the team.

Duration

The period covered by this contract will be up to one year from selection of the contractor.

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