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Report of the international expert workshop on the contribution of indigenous and local knowledge systems to the Platform

Note by the secretariat

The annex to the present note sets out the report of the international expert workshop on the contribution of indigenous and local knowledge systems to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, held in Tokyo from 9 to 11 June 2013. The workshop was convened by the Multidisciplinary Expert Panel of the Platform, hosted by the Ministry of Environment, Japan, and organized jointly by the United Nations Educational, Scientific and Cultural Organization and the United Nations University. The annex is presented as received from the meeting organizers and has not been formally edited.

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THE CONTRIBUTION OF INDIGENOUS AND LOCAL KNOWLEDGE SYSTEMS TO IPBES: BUILDING SYNERGIES WITH SCIENCE

Final

14 August 2013

IPBES Expert Meeting Report

9-11 June 2013

Tokyo, Japan

The expert meeting was convened by the IPBES Multidisciplinary Expert Panel, and co-organized by UNESCO and UNU, pursuant to decision IPBES/1/2 of the IPBES Plenary. Such decision does not imply Plenary endorsement or approval of the proceedings or any recommendations or conclusions contained therein. Neither the papers presented at the expert meeting nor the report of its proceedings, have been subjected to IPBES review.

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I. Introduction

Biodiversity is inextricably intertwined with the well-being of people and of Planet Earth. Across the globe, people are in constant interaction with the biological components of their environment, and through this interaction they nurture sophisticated sets of knowledge and practice, which include both science and indigenous & local knowledge (ILK). In the face of unprecedented declines in biodiversity over past decades, it has become increasingly apparent that synergies must be built among knowledge systems in order to provide policy-makers and science practitioners[1] with the best available knowledge to decide what urgent action must be taken to halt the rapidly accelerating degradation and loss of the biodiversity and ecosystem services that underpin sustainability, as well as resilience in the face of global change.

As a newly established intergovernmental entity, the Intergovernmental Platform on Biodiversity and Ecosystems Services (IPBES) builds upon the ongoing work and achievements of bodies such as the Convention on Biological Diversity (CBD) and the Intergovernmental Panel on Climate Change (IPCC), as well as previous processes such as the International Mechanism of Scientific Expertise on Biodiversity (IMOSEB) and the Millennium Ecosystem Assessment (MA). The key role of indigenous and local knowledge in biodiversity conservation and management has been consistently highlighted within all of the aforementioned processes, including the 1992 CBD article 8 (j) that requires Parties to 'respect, preserve and maintain the knowledge, innovations and practices of indigenous and local communities' and the MA 2004 International Conference on *Bridging Scales and Epistemologies: Linking Local Knowledge and Global Science in Multi-scale Assessments*, amongst many others.

At the first ad hoc intergovernmental and multistakeholder meeting on an Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (Putrajaya, Malaysia, 2008), the first revised concept note that would lead to the creation of IPBES called for an

improved dialogue between scientific and other knowledge systems and understandings, perspectives and values regarding biodiversity and ecosystem services to help make policy decisions more effective, efficient and equitable for the sustainable use of biodiversity and ecosystem services

(UNEP/IPBES/1/2)

At the third meeting towards the establishment of IPBES in 2010, Members adopted the Busan Outcome that includes the following IPBES principle:

Recognize and respect the contribution of indigenous and local knowledge to the conservation and sustainable use of biodiversity and ecosystems

(Busan Outcome, paragraph 7(d). UNEP/IPBES/3/3)

This operating principle embeds the recognition of and respect for indigenous and local knowledge in all aspects of IPBES including in the scientific and technical functions of the IPBES Multidisciplinary Expert Panel (MEP), as well as in the IPBES work programme.

[1] In this context, science practitioners refers to natural resource, protected area and/or environmental managers.

In preparation for the first session of the IPBES Plenary (IPBES-1), UNESCO as part of the interagency IPBES Interim Secretariat was requested to draft an information document that would consider key issues related to indigenous and local knowledge in IPBES. This document was presented at IPBES-1 as *Consideration of initial elements: Recognizing indigenous and local knowledge and building synergies with science* (IPBES/1/INF/5).

A. Relevant IPBES-1 decisions

At IPBES-1, the following decisions were taken in relation to the development of the IPBES work programme. Under the heading *Knowledge Systems,* the Plenary:

> Requests the secretariat to compile all comments received on the information document on recognizing indigenous and local knowledge and building synergies with science (IPBES/1/INF/5), and to support the Multidisciplinary Expert Panel in convening a multidisciplinary and regionally balanced expert and stakeholder workshop, among other actions, to provide input on this matter in developing the conceptual framework and other aspects of the work of the Platform.
>
> Invites members, observers and other stakeholders to submit nominations to the secretariat for participation in the multidisciplinary and regionally balanced expert workshop for consideration by the Multidisciplinary Expert Panel.
>
> Requests the Multidisciplinary Expert Panel to recommend possible procedures and approaches for working with different knowledge systems for consideration by the Plenary at its second session, drawing on the inputs received.
>
> (Decision IPBES/1/2, paragraphs 9-11)

B. Selection of participants and organization of the experts meeting

At IPBES-1, the government of Japan announced its support for the organization of an expert and stakeholder workshop on indigenous and local knowledge in IPBES. It was also agreed that UNESCO, further to its lead role in developing the document IPBES/1/INF/5, would co-organize the workshop in partnership with UNU. The international expert and stakeholder workshop on the *Contribution of Indigenous and Local Knowledge Systems to IPBES: Building Synergies with Science* was held from 9-11 June 2013 in Tokyo, Japan. Convened by the MEP, the workshop was co-organized by UNESCO and UNU, with generous support from the Ministry of the Environment, Japan.

Nominations and Selection of Experts:

Members, observers and other stakeholders were invited to nominate experts, including indigenous peoples, for participation in the workshop on or before 28 March 2013 (cf. Annex A: Call for Nominations). This deadline was extended to 15 April 2013 by which time 106 nominations were received.

At its first full MEP and Bureau meeting in Bergen, Norway (1-6 June 2013), the MEP reviewed the modalities set in place for the organization of the Tokyo workshop, including the composition of the Organizing Committee, the expert selection process, the list of selected participants, and the

proposed agenda. The Organizing Committee of 10 members included four MEP members, two indigenous peoples' experts, a host country scientist, a donor representative from the Ministry of Environment, Japan, and one representative each from UNESCO and UNU as co-organizers of the event (cf. Annex B: Membership of the Organizing Committee). The Organizing Committee reviewed the nomination forms and CVs from the 106 nominees. Following a rigorous selection process, and taking into account relevant expertise, regional balance, gender and the participation of indigenous peoples and local community experts, 21 experts were identified (cf. Annex C: Procedures applied for the Selection of Experts). Along with the 7 expert members of the Organizing Committee, the final participants list for the workshop consisted of 28 experts (cf. Annex D: List of Invited Participants). A full analysis of the composition of the expert group by region, as well as with respect to gender and indigenous participation is provided in Annex E. Immediately prior to the workshop, two indigenous experts were obliged to cancel their participation for health reasons and due to insufficient time to obtain the required visa (from Thailand and China respectively). In order to ensure broad participation in the process, experts who were nominated but not selected will be invited to review the outcomes of the workshop and to contribute their comments and additional inputs.

Workshop objectives:

Based on the decisions of the IPBES-1 plenary, the workshop on the *Contribution of Indigenous and Local Knowledge to IPBES* had the following objectives:

1. Examine and identify procedures and approaches for working with indigenous and local knowledge systems in the framework of IPBES.
2. Review and assess possible conceptual frameworks for the work of IPBES that are based on or accommodate indigenous and local knowledge systems and worldviews.

Workshop documents:

In support of workshop discussions and debates, participants were provided with a Background Paper that outlined the relevant IPBES Plenary decisions, as well as the workshop objectives and expected outcomes (cf. Annex F). Also provided was the information document IPBES/1/INF/5 on *Consideration of initial elements: Recognizing indigenous and local knowledge and building synergies with science.* The draft revised version of INF/5 incorporating comments and proposed revisions from Members and Stakeholders was also made available to the experts.

In addition to IPBES documents, outcome reports from earlier relevant workshops were also distributed to experts including from the:

1. Dialogue Workshop on Knowledge for the 21st Century: Indigenous knowledge, Traditional knowledge, Science and connecting diverse knowledge systems that was organized by the Stockholm Resilience Centre and held in Guna Yala, Panama, 10-13 April 2012;
2. *International Expert Workshop connecting diverse knowledge systems in the context of IPBES* that was organized by the German Federal Agency for Nature Conservation and held in Vilm, 22-25 April 2013; and
3. *Messages from the World Indigenous Network Conference* that was hosted by the Government of Australia and held in Darwin Australia from 26-31 May 2013.

The Stockholm Resilience Centre also provided a discussion paper on The Multiple Evidence Base as a framework for connecting diverse knowledge systems in the IPBES.

C. Opening, plenary and working group sessions

The workshop agenda included an opening session, plenary keynotes and a plenary panel on the morning of Day 1, followed by closed parallel working groups sessions on specific themes, interspersed with plenary reports on the afternoon of Day 1 and on Day 2, and a final Plenary debate on Day 3 (cf. Annex G: Agenda).

Opening Session:

The meeting was opened by Mr. Kazunori Tanaka, Senior Vice-Minister for the Environment, Government of Japan, who emphasized that 'to achieve the Aichi Targets and to realize a society in harmony with nature, it is important to consider not only the things that can be evaluated by modern science but also things that cannot be evaluated in a single way - such as diverse views of the world and cultural backgrounds'.

The Director-General for the Research and Development Bureau of the Ministry of Education, Culture, Sports, Science and Technology, Mr Kazuo Todani, reiterated the need for transdisciplinarity, to ensure that diverse perspectives are brought together to heighten our understanding of global sustainability issues. Indigenous peoples and local communities, he added, are 'the key stakeholders and key users of knowledge derived from transdisciplinary research with biodiversity elements'.

On behalf of IPBES, Professor Zakri Abdul Hamid, founding Chair of IPBES, spoke of the 'sixth great extinction episode' in Earth's history, referring to the ongoing rapid decline of biodiversity and ecosystem services. IPBES, he said, was designed to reduce the gulf between the wealth of scientific knowledge about biodiversity, and the paucity of effective action to reverse damaging trends. Recognizing the necessity, but also the complexity, of the IPBES task to 'identify gaps in knowledge and build capacity for the interface between policy and knowledge – in all its forms', Professor Zakri spoke of the need to develop a process through which scientific and policy communities recognize, consider and build synergies with indigenous and local knowledge in the conservation and sustainable use of biodiversity and ecosystem services. He noted that the outcomes of this workshop would support the MEP in preparing its proposals to the IPBES Plenary that will take place later this year.

Bertie Xavier, an indigenous Toshao leader from Guyana and an Expert Member of the UN Permanent Forum on Indigenous Issues, spoke to the role of traditional knowledge in connecting indigenous peoples with place, identity and culture. He reminded participants of the growing number of international instruments that recognize the rights of indigenous peoples to protect and enjoy their cultural heritage.

Representatives of UNESCO and UNU[2], as co-organizers of the workshop, highlighted the contributions of these two United Nations bodies to IPBES. For United Nations University, these included the hosting of two UNU-ISP workshops on IPBES assessments that contributed significantly to the development of the initial work programme and conceptual framework for IPBES. UNESCO highlighted the contributing role of the Man and the Biosphere Programme with its World Network of Biosphere Reserves, as well as its 10-year programme on Local and Indigenous Knowledge Systems (LINKS) that is leading the current work on indigenous and local

[2] For UNESCO, Salvatore Arico spoke on behalf of Gretchen Kalonji, Assistant-Director General for the Natural Sciences. For UNU, Osamu Saito spoke on behalf of David Malone, Rector of UNU.

knowledge on behalf of the IPBES Secretariat, while also collaborating with IPCC on traditional knowledge for climate change assessment and adaptation.

Plenary Keynotes and Plenary Panel

Fikret Berkes, Distinguished Professor and Canada Research Chair, presented an overview of indigenous and local knowledge in biodiversity conservation and management. He underlined the long history of engagement between indigenous knowledge holders and scientists, and highlighted the importance of indigenous knowledge for resource management, biodiversity conservation, environmental monitoring, and for coping with environmental variability and crises.

Joji Cariño, Executive Director of the Forest Peoples' Programme and representative of the International Indigenous Forum on Biodiversity (IIFB) Working Group on Indicators, provided an overview of indigenous peoples' engagement and experiences with biodiversity assessments and sustainable use. An indigenous Ibaloi from the Philippines, Ms. Carino described the modes of participation for indigenous peoples in several different intergovernmental processes, including the Arctic Council and its Working Groups, where indigenous peoples sit as Permanent Observers alongside governments, and the Convention on Biological Diversity (CBD) and its Working Group on Article 8 (j) and related provisions, where indigenous peoples and governments participate in debates as equals.

A Plenary Panel of five experts considered the diversity of sources and forms of ILK of relevance to IPBES, from the perspectives of natural scientists, social and human scientists and indigenous peoples. The panelists raised a number of key points. They emphasized that scientific knowledge is not sufficient in and of itself to turn the tide on biodiversity loss. Dialogue and complementarity amongst diverse sets of knowledge bring new insights, choices and solutions. They called attention to the diversity of indigenous and local knowledge of biodiversity – not only the distinctive sets of knowledge from one cultural group to the next, but also among societal groups, between men and women, and between individuals within a community who may possess expertise in specific domains. However, to build synergies among knowledge systems, scientists also need to reflect on the limits of their own concepts and practice. As one expert pointed out, just like fish cannot see the water they swim in, scientists are often unaware of their own assumptions and blind spots. Experts furthermore underlined that the perceptions and understandings of biodiversity/resource managers differed from those of scientists, and must be considered independently.

Panelists made clear that the process of building synergies between knowledge systems goes well beyond the mere integration or assimilation of one knowledge system into another. Procedures and approaches need to be adopted that recognize the inherent value of indigenous and local knowledge systems, that maintain their dynamism within communities and that reinforce their inter-generational transmission.

Parallel and Plenary Working Sessions:

The closed working sessions of the workshop began on the afternoon of Day 1 with an initial plenary session to provide experts with background on IPBES (cf. Annex H: Presentation by R. Thaman, MEP Member) and the context of its intersessional work, plus the workshop goals and organization. This was followed by parallel working sessions on specific themes that continued throughout Day 2 with rapporteurs reporting back in Plenary. The final Day was dedicated to plenary discussions with decisions on key messages and recommendations. The participants developed key messages and recommendations for consideration by the MEP on procedures and

approaches for working with indigenous and local knowledge systems in the framework of IPBES. One subgroup of experts considered, in a parallel working group, a possible conceptual framework for IPBES that is based on or accommodates indigenous and local knowledge systems and worldviews. The subgroup provided some key messages and recommendations that were adopted by the workshop plenary for consideration by the MEP.

Hereafter Section II of the report presents an overview of the key messages that emerged from the discussions that took place both in working groups and in plenary, based upon the detailed list of workshop messages included in Annex I. Section III of the report presents the Recommendations that workshop experts agreed should be transmitted to the MEP for its consideration.

II. Procedures and approaches for working with different knowledge systems in the framework of IPBES

A. Opportunities, challenges and needs with respect to Indigenous and Local Knowledge Systems (ILK) in the framework of IPBES

At the IPBES workshop in Tokyo, experts, including indigenous peoples, examined the issue of procedures and approaches for working with indigenous and local knowledge in the framework of IPBES. During plenary debates, as well as parallel working group discussions focusing on specific aspects, the experts shared experiences, methods and outcomes gained from work in all world regions, in a multitude of ecological, social, cultural and political settings, and across scales from the local to the global.

Through this exchange, the experts confirmed that indigenous and local knowledge of the natural environment including its biodiversity, has always been and continues to be a foundation for indigenous and local community livelihoods and cultures. Furthermore, this transdisciplinary domain that crosses boundaries between knowledge systems has been an active area of research and action since at least several decades, and indigenous peoples and scientists have made considerable effort to work together and build synergies between knowledge systems.

Various aspects of this transdisciplinary work have also been addressed through intergovernmental processes. Ratified in 1993, the Convention on Biological Diversity (CBD) outlines several responsibilities of Parties with respect to: *knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity.* Signatories are expected to 'respect, preserve and maintain' this knowledge, as well as 'promote its wider application (cf. CBD, Article 8(j)).' During the 13 years since its creation in 2000, the *Ad Hoc Open-ended Inter-sessional Working Group to address the implementation of Article 8 (j) and related provisions* has produced several noteworthy outcomes including:

- The Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessments
- the Tkarihwaié:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities

The 8 (j) Working Group has also contributed towards the traditional knowledge dimensions of the Nagoya Protocol_on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity. Other

intergovernmental processes of direct relevance to indigenous and local knowledge include the work of the World Intellectual Property Organization (WIPO) on the intellectual property dimensions of traditional knowledge. The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore has been working since 2000 on the development of an international legal instrument for the protection of traditional knowledge, and conducting formal negotiations since 2009. Additional relevant intergovernmental processes include work on the genetic diversity of domestic animals and plants, farmers' rights (Food and Agriculture Organization) and traditional medicine and medicinal plants (World Health Organization). Intergovernmental processes such as these, extending over several years and touching upon specific aspects of indigenous and local knowledge, also need to be taken into consideration when formulating the procedures and approaches to be developed for IPBES.

The importance of incorporating indigenous and local knowledge in assessment processes has been recognized at the national and regional level for many decades. The Millennium Ecosystem Assessment (MA) brought this recognition to the global scale, and recently efforts have been made to operationalize this recognition through the Arctic Climate Impact Assessment. Today the IPCC is also working towards the incorporation of indigenous and local knowledge in their Fifth Assessment Report to be released in 2014 (cf. Nakashima et al. 2012).

The experts also remarked that the challenges of bridging between knowledge systems bear some resemblance to the scientific challenge of interdisciplinarity. Despite concerted efforts in recent decades to build linkages between the natural sciences and the social and human sciences, many aspects remain difficult to resolve including the articulation of quantitative and qualitative approaches, incongruities in terminology, differences in scale, and disagreements over what constitutes scientific method, data and evidence. The fact that the scientific community has yet to come up with 'cookbook' procedures and approaches to create interdisciplinary linkages among the sciences (natural, social and human), helps place in appropriate perspective the even more ambitious IPBES challenge of building linkages between the sciences and other systems of knowledge.

Language and linguistic diversity, for example, add additional levels of complexity. This is not merely a matter of communication and interpretation. Indigenous peoples and local communities possess distinctive indigenous nomenclatures and taxonomies with respect to biodiversity, lexicons which may be technically complex, and grammatical forms for talking about observations, evidence and proof. Knowledge about biodiversity that is embedded in indigenous and local languages cannot be captured nor conveyed with any rigor by a simple translation into mainstream languages. The experts emphasized that specific procedures must be defined in order to grasp core indigenous and local terms and concepts with respect to biodiversity and then identify their equivalents in scientific terminology.

Experts also underlined the need to comprehend the social complexities of knowledge. Men and women may possess different and complementary knowledge. Culturally-designated individuals, lineages or clans may possess specialized knowledge and skills in specific domains. And access to knowledge may be governed by culturally-specific rules and procedures.

An additional challenge for IPBES engagement with indigenous and local knowledge, is the need for procedures and approaches to apply across the enormous diversity of ecological systems world-wide, the diversity of cultural systems (e.g. farmers, fishers, pastoralists, hunter-gatherers, some sedentary and others nomadic), and the diversity of co-evolved bio-cultural systems, which are the products of the long-term and intimate interactions between human and bio-physical systems.

Referring to the spatial scale of IPBES assessments, experts pointed out that the spatial extent of some sets of indigenous knowledge coincide with the sub-regional or regional mandate of IPBES. For example, some nomadic or semi-nomadic peoples range over large territories of regional scope. Other groups that share a common cultural and linguistic heritage occupy traditional homelands that traverse the borders of two or more countries, and can therefore contribute relevant knowledge to sub-regional or regional assessments of the status and trends of biodiversity and ecosystem services.

For more localized groups, IPBES may need to develop specific procedures and approaches to work with contiguous groups whose collective knowledge of biodiversity and ecosystems services, when juxtaposed, may extend across sub-regional or regional assessment areas. Long-distance transboundary migratory species, on the other hand, may raise other methodological considerations. Even though the indigenous and local knowledge of a group may be restricted to a small portion of a species' range, this spatially-limited knowledge may nonetheless prove to be of regional significance for assessments and policy-making when the territory of the group is located at a strategic point along a migratory corridor. In these cases, their site-specific observations and knowledge may provide critical snapshots of population health, abundance, or composition, while creating opportunities for co-management and conservation. It was also stressed that such transboundary knowledge may also be critical for managing the spread of invasive alien species and diseases at subnational, national and international levels. To build synergies with indigenous and local knowledge, these and other aspects must be understood and correctly built into IPBES procedures and approaches.

Discussions at the workshop also made clear that procedures and approaches must also be tailored for IPBES and the specific needs arising from its mandate and four functions. Specific procedures and approaches need to be defined to engage indigenous and local knowledge, and indigenous and local knowledge holders, in IPBES assessments and their sequential phases of scoping, preparation of reports, drafting and reviewing. The other IPBES functions such as capacity-building, knowledge generation or policy formulation raise additional issues and require a different configuration of procedures and approaches. Furthermore, as indigenous and local knowledge is a cross-cutting area of work within IPBES, procedures and approaches must be formulated with respect to the overall engagement of indigenous and local knowledge holders within IPBES.

In summary, the experts at the workshop outlined several examples of procedures and approaches for building synergies between knowledge systems in the context of IPBES and formulated several key messages in this regard. The key messages from these discussions are summarized in Annex I, grouped under the following themes:

1. Rethinking Relationships: Science(s) and Indigenous and Local Knowledge
2. Fundamental Aspects of Indigenous and Local Knowledge
3. Principles for Engagement with Indigenous and Local Knowledge Holders
4. Capacity-building Needs

The experts also proposed recommendations that relate to procedures and approaches for reinforcing ties between knowledge systems, which are included in Section III Recommendations below and organized with respect to IPBES functions.

Finally, it was the consensus of the workshop experts, including indigenous peoples, that considerably more dedicated work would be required in order to achieve in a satisfactory manner

the Work Programme milestone of an adequate and comprehensive set of IPBES procedures and approaches for building synergies between knowledge systems (cf. in particular Section III Recommendation 3).

B. ILK and the emerging IPBES conceptual framework

Background:

At the first plenary meeting of IPBES in Bonn in January 2013, an information document was presented on a potential IPBES draft conceptual framework. The document was the outcome of an informal expert workshop on the development of a conceptual framework for the Platform (27-29 October 2012, Paris), organized by UNESCO on behalf of the IPBES interim secretariat, with generous support from the Ministry of the Environment, Japan.

During IPBES-1, delegates contributed input towards the document, which was also made available for comment through an online review. It was also decided that an expert workshop would be organized during the inter-sessional period to further reflect on a conceptual framework for IPBES, which addresses the objectives, functions and relevant operating principles of the Platform. This workshop, now scheduled to take place in Cape Town, South Africa on 25-26 August 2013, is to draw on a range of sources of information, including inputs received from the Paris workshop. It was also decided that the Tokyo workshop on indigenous and local knowledge would provide additional inputs to this conceptual framework workshop, including the identification of experts from the Tokyo event who would also participate in Cape Town.

Overview of discussions:

The experts at the Tokyo workshop agreed that an IPBES conceptual framework must accommodate indigenous and local knowledge and worldviews in an appropriate and respectful manner. The draft framework that emerged from the Paris workshop was not considered adequate in this respect. The experts acknowledged the need for alternative proposals that provide a broader approach with additional opportunities for including indigenous and local knowledge systems, diverse conceptualizations of relationships between human and non-human beings, and other visions of well-being within ecological systems.

With respect to the possibility of recognizing multiple IPBES conceptual frameworks, the experts agreed on the importance of a single unifying conceptual framework for IPBES. The aim is build a conceptual framework that can accommodate multiple worldviews and epistemologies with the ultimate goal of reaching a working understanding among different stakeholders on to how to assess and approach issues of biodiversity and ecosystem services loss.

Participants also agreed that it was important to ensure that basic principles for collaboration with indigenous peoples and local communities should be applied to the dialogue processes leading towards the development of this framework, as well as the conceptual framework itself. This includes the full and effective participation of indigenous peoples and local communities, and the need for an equitable approach that recognizes and respects both indigenous and local knowledge, diverse languages, and science.

The expert group recalled the rationale provided in document IPBES/1/INF/9 as to the recommendation (Key Message 3) that 'Conceptual frameworks can be used to facilitate the inclusion of indigenous and local knowledge systems, which are essential for understanding the

complex interrelationships among biodiversity, ecosystem services and human well-being.' The expert group reiterated that indigenous peoples and local communities, through their worldviews, management and knowledge systems, have their own conceptualizations of the relationships between ecological, social and spiritual spheres. These representations should complement science-based representations and be an integral part of an IPBES conceptual framework in support of the delivery of IPBES functions and the implementation of the Platform's programme of work.

Worldviews or conceptual frameworks of indigenous peoples and local communities often emphasize the following:

- the interdependence of socio-economic and ecological spheres;
- the central role of social relations and reciprocity amongst humans, as well as in the unity of humans and nature,
- the continuity of relations between past, present and future generations, and intergenerational transmission of values, knowledge and responsibilities;
- emphasis on cyclical processes in natural and social domains;
- collective identification with place/land/ancestral territory;
- recognition of the role of communities in managing and maintaining landscape mosaics and biodiversity, including an emphasis on polycultural rather than monocultural agrobiodiversity, that enhance the provisioning of ecosystem services for human wellbeing; and
- recognition that knowledge is also embodied in practice, action, morality, spirituality (as opposed to abstracted and objectified).

All of these points are also reflected in document IPBES/1/INF/9.

In contrast, the current proposed conceptual framework was seen as focusing too much on assessments and a single model that does not recognize the diversity of ways to conceptualize the interactions between social and ecological spheres. Further views collected in the context of the review of the draft conceptual framework document (IPBES/1/INF/9) express the concern that the current proposal has several limitations and bears certain risks with respect to the knowledge systems of indigenous peoples and local communities. Taking into account several examples, case studies and experiences around the world, the expert group agreed that although multiple frameworks could be envisaged, a single conceptual framework should be adhered to and agreed upon for IPBES. The current draft conceptual framework could be used as a starting point for formulating a conceptual representation of interactions between social and ecological spheres that encompasses and reflects the diverse views of indigenous peoples and local communities.

III. Recommendations from the Workshop

A. Recommendations on Procedures and Approaches for working with ILK in the framework of IPBES

1. In line with the Operating Principles of the Busan Outcome that form the basis of IPBES, as well as Article 8(j) of the Convention on Biological Diversity and Aichi Target 18, which recognize and respect the contribution of indigenous and local knowledge to the conservation and sustainable use of biodiversity and ecosystems, IPBES should ensure that a meaningful and active engagement is established with indigenous and local knowledge (ILK) holders in all relevant aspects of its work and across all of its functions including by:

   a. recognizing that indigenous peoples and members of local communities have distinct status as knowledge-holders and rights-holders;

   b. putting in place mechanisms and procedures to ensure effective participation in the MEP itself and its activities, including in any working groups, expert bodies and other structures that may be established, in the development of the conceptual framework and work programme, as well as in outreach to indigenous peoples and local communities (IPLCs).

2. Women and men commonly fulfill different, but complementary roles and responsibilities in relation to different components of biodiversity and sustainable use, resulting in different knowledge, needs, concerns, priorities and roles. For this reason, women may possess knowledge, not held by men, which can inform IPBES processes. To fulfill its operational priority to achieve gender equity in all relevant aspects of its work, IPBES should put in place mechanisms that ensure attention to gender specific-knowledge and gender balance in all components of its work.

3. To attain the work programme milestone relating to other knowledge systems, and to ensure a consistent and rigorous approach to linking ILK and science within IPBES, IPBES should establish, under the guidance of the MEP, an [interim] working group composed of ILK-holders and scientists[3], amongst others, to:

   a. conduct a scoping of existing experiences, approaches and methodologies on bridging between scientific and indigenous knowledge systems to better understand and assess status and trends with respect to biodiversity and ecosystem services;

   b. further analyze and address gaps in procedures and approaches for working with different knowledge systems in the framework of IPBES;

   c. identify challenges and possible ways forward with respect to evolving work on free, prior and informed consent (FPIC), intellectual property rights, customary governance over indigenous and local knowledge, and access and benefit-sharing;

   d. further develop modalities for building synergies between indigenous & local knowledge and science by fostering the development of innovative approaches, such as knowledge co-production and multiple-evidence base;

[3] In this context 'scientist' may include professionals from all scientific disciplines in the natural, social and human sciences, and also refer to science practitioners, including natural resource and environmental managers.

e. develop guidelines for linking indigenous and local knowledge with science at all levels, recognizing the roles and relevance of international policies and protocols, including those related to access and benefits-sharing;

f. develop guidelines for novel and culturally-appropriate ways to review, validate and disseminate results, which could complement traditional systems of validation and results dissemination while strengthening synergies between ILK and science;

g. define in precise terms (i) ILK-based indicators that contribute to measuring progress towards IPBES goals as well as the benefits of IPBES for indigenous peoples, and (ii) initiate a monitoring programme to measure and report on those ILK-based indicators in a regular and transparent way.

4. In relation to its assessment function, the MEP should:

a. pay particular attention, when scoping IPBES assessments, to the impacts of declines in biodiversity and ecosystem services on resource-dependent communities, including indigenous peoples' communities, and to informing these assessments through indigenous and local knowledge, complemented by science;

b. based upon indigenous and local knowledge, as a complement to science, (i) identify indicators to measure the current state of biodiversity, ecosystem services and cultural wellbeing, (ii) establish thresholds to trigger different levels of management intervention to counter biodiversity declines, (iii) set targets for the rate of recovery, and (iv) fix stopping rules to terminate interventions and divert investments elsewhere;

c. build a roster on ILK and science that consists of experts, including from indigenous peoples and local communities, who can provide direct inputs to the preparation and review of assessment reports and other IPBES deliverables. This includes their participation in scoping meetings, on writing and review teams[4], and as expert reviewers of draft reports;

d. establish dialogue workshops that are specifically designed to facilitate the direct engagement of relevant ILK holders, with technical support as appropriate, to ensure the appropriate contribution of ILK to the scoping, preparation and review of IPBES assessment reports, technical papers and supporting material;

e. address ILK in assessment reports, technical papers and supporting material across all relevant chapters, and not in a separate section that is isolated from the main body of work.

5. With respect to catalyzing knowledge generation, the MEP should:

a. recognize the importance of indigenous and local languages, taxonomic systems and methodologies as sources of biodiversity-related knowledge at genetic, species and landscape levels;

b. recognize that regional assessments of biodiversity and ecosystem services, and landscape-level management modalities, can be informed by indigenous and local knowledge possessed by indigenous peoples whose customary territories extend across national boundaries;

[4] These may include participation as Coordinating Lead Authors (CLAs), Lead Authors (LAs), Contributing Authors (CAs), Reviewers (Rs) and Review Editors (REs).

c. recognize the growing experience and related scientific literature on community-based monitoring of environmental and global change, and local assessments of the status of indigenous languages, knowledge and community well-being;

d. provide support for pilot projects in areas where IPLCs have already developed productive relationships with scientists and generated policy-relevant knowledge and tools to address biodiversity loss, including through co-management regimes, knowledge co-production and evaluations of barriers to policy adoption.

6. With respect to policy support tools and methodologies, the MEP should:

a. promote the synergies between indigenous and local knowledge and science through making available periodic reviews and assessments of relevant tools and methodologies.

b. review how the IPBES programme of work can be decentralized to the most appropriate scales, and encourage the establishment of regional and sub-regional centres of excellence in indigenous and local knowledge;

c. ensure that IPBES materials include policy-relevant syntheses that provide tools and approaches for the continued transmission of indigenous and local knowledge, as well as support for customary sustainable use. These considerations should extend to agencies and bodies that may not be directly linked to biodiversity and ecosystem services (e.g. education, health and cultural heritage);

d. review existing mechanisms for soliciting requests/inputs/suggestions with an aim to reinforcing requests/inputs/suggestions from IPLCs with respect to their customary territories, lands and resources.

7. With respect to capacity-building, the MEP should:

a. promote reciprocal capacity-building through two-way learning where capacities of scientists are built by ILK holders, and in return, ILK holders are exposed to scientific concepts and methods, so as to reinforce opportunities for building ILK-science synergies;

b. grant fellowships to ILK holders to engage in IPBES processes and develop the skills required to bridge between knowledge systems. Support should also be provided for fellows to mentor other ILK holders through peer-to-peer exchanges and visits;

c. promote intercultural education that supports the transmission of indigenous and local knowledge and practice, alongside mainstream education, so as to develop skills in both scientific and indigenous knowledge systems.

d. integrally involve ILK-holders, community leaders, local scientists and students in IPBES activities so as to enhance capacity building, ownership and relevance of IPBES assessments.

8. IPBES should use a wide variety of media, languages, forums, communication processes to maximize participation and learning from and by indigenous and local knowledge holders.

B. Recommendations on an IPBES Conceptual Framework

1. Discussions on the IPBES conceptual framework should be opened to experts on indigenous and local knowledge, including from indigenous and local knowledge networks,

to allow them to contribute to the debate and broaden consultations as a basis for building synergies between ILK and science.

2. The conceptual framework should be further developed so as to reflect the multiple representations of relations between social and ecological spheres both in terms of science-based conceptual frameworks as well as diverse indigenous and local worldviews.

3. IPBES should critically evaluate the appropriateness of the Ecosystem Services framework and its current priority setting tools for equitable allocation of resources to restore indigenous and local community well-being.

4. The MEP should ensure participation by biodiversity and environmental managers in all IPBES conceptual thinking, priority setting and subsequent interventions. This will ensure that their practice-based knowledge of how to best protect and enhance biodiversity and ecosystem services is combined with the knowledge and expertise of scientists and indigenous and local knowledge holders.

Annex A: Call for Nominations

Nomination of Experts and Stakeholders

International Expert and Stakeholder Workshop on

The Contribution of Indigenous and Local Knowledge Systems to IPBES: Building Synergies with Science

Convened by the Multidisciplinary Expert Panel of the Intergovernmental Platform for Biodiversity and Ecosystem Services (IPBES)
Hosted by the Ministry of the Environment Japan
Co-organized by UNESCO and UNU
9-11 June 2013, Tokyo, JAPAN

At the first Plenary of IPBES, Members requested the Multidisciplinary Expert Panel (MEP) to convene a multidisciplinary and regionally-balanced expert and stakeholder workshop to provide input on the contribution of indigenous and local knowledge systems to the Platform. As a contribution to the IPBES intersessional process, the Ministry of the Environment of Japan has generously offered to host this workshop, which will be co-organized by UNESCO and UNU in close collaboration with the MEP. Members, observers and other stakeholders are invited to nominate experts and stakeholders with relevant expertise and experience for participation in the workshop.

Workshop Objectives:
1. Examine and identify procedures and approaches for working with indigenous and local knowledge systems in the framework of IPBES.
2. Review and assess possible conceptual frameworks for the work of IPBES that are based on or accommodate indigenous and local knowledge systems and worldviews.

Nominees for participation in the Workshop should fulfill one or more of the following criteria:

1. Indigenous peoples and local community members with in-depth knowledge of biodiversity, or persons with significant experience working with indigenous and local knowledge holders.
2. Persons with direct experience with procedures and approaches for working with indigenous and local knowledge of biodiversity, and for building synergies between indigenous and scientific knowledge.
3. Persons that have been directly involved in assessments at local, national, regional or global levels that interface indigenous and local knowledge with scientific knowledge.

Nominations of indigenous peoples with expertise in the domain and women experts are encouraged.

For each nominee, please submit:

- a curriculum vitae for the nominee
- a completed nomination form (on page 2)

Contributions from selected nominees will be circulated at the workshop, and some may be presented orally in plenary or parallel sessions.
Note: the working language for the workshop will be English.

Closing date for submission of nominations:
28 March 2013

Annex B: Membership of the Organizing Committee

Joji CARINO, Executive Director, Forest Peoples Programme

Phil LYVER, IPBES MEP member, Western Europe and Other States

Roger MPANDE, IPBES MEP member, African States

Edgar PEREZ, IPBES MEP member, Latin American and Caribbean States

Kazuhiko TAKEUCHI, University of Tokyo, Japan

Randy THAMAN, IPBES MEP member, Asia-Pacific States

Bertie XAVIER, Member, United Nations Permanent Forum on Indigenous Issues (UNPFII)

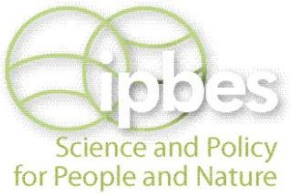
For the organizing secretariat

Fumiko NAKAO, Ministry of the Environment, Japan

Osamu SAITO, United Nations University (UNU)

Douglas NAKASHIMA, United Nations Educational, Scientific and Cultural Organization (UNESCO)

Annex C: Procedures applied for the Selection of Experts



International Expert and Stakeholder Workshop on
The Contribution of Indigenous and Local Knowledge Systems to IPBES: Building Synergies with Science
9-11 June 2013
Venue: United Nations University,
Institute for Sustainability and Peace (UNU-ISP) Tokyo

Procedures applied for the Selection of Experts

The Organizing Committee made every effort to ensure that the selection process for the IPBES workshop in Tokyo is rigorous, fair and transparent.
The ten-member Organizing Committee includes (see list in Annex B):

- four MEP members endorsed by the MEP that were selected for their expertise in relation to indigenous and local knowledge;
- two indigenous persons (including a Member of the UN Permanent Forum on Indigenous Issues);
- one host country expert (Japan);
- one donor representative (Ministry of Environment of Japan);
- one representative each from UNU and UNESCO as co-organizers of the event.

Selection Method
Prior to reviewing the nomination files, the Organizing Committee (OC) agreed upon the selection procedure. The OC members reviewed independently the 107 nominations received for the IPBES Tokyo workshop. Each nominee was rated as either 'selected', 'perhaps for selection' or 'not selected' on the basis of their relevant expertise for the workshop as reflected in their completed nomination form and CV. Where a potential conflict of interest existed between an OC member and a nominee, that member withdrew from any deliberations relating to that nominee and abstained from any ranking of that nominee.

In line with the classification of the event as an international expert workshop, appropriate expertise was the primary criterion for selection.

By compiling the results of this 3-level rating by OC members, the collective ranking was established for all nominees for the Tokyo workshop. This ranking was used to sequentially select participants for the event, starting with nominees who the largest number of OC members designated as 'selected'. This step-wise selection was then adjusted, as required by the IPBES Plenary, for regional balance and

multidisciplinary expertise. Equally important, given the workshop theme, was the inclusion of indigenous knowledge holders, along with scientists, as well as the consideration of gender.

Selected experts were sequentially invited, while maintaining an appropriate balance amongst regions, expertise, indigenous peoples and women, until the available budget envelope was exhausted. Experts from developed countries, once selected, were asked whether they might have access to funding for their travel costs. The great majority of experts from Western European and Other States were able to cover their airfares from other sources, which then freed up funds for additional developing country participants.

Calendar

The intersessional calendar for IPBES is very tight. Following the First IPBES Plenary (21-26 January 2013), Members, Observers and Stakeholders were invited to submit nominations for the Tokyo Workshop on or before 28 March 2013. In order to provide additional time for nominations, this deadline was extended to 15 April 2013. With the IPBES Secretariat, all nomination forms and CVs were compiled into a single spreadsheet and accompanying database, while double-checking to ensure all were recorded, and completing where possible partial dossiers.

On 28 April, the complete nomination file was sent to the Organizing Committee for their review and evaluation. By 2 May, a ranked listing of nominees was established by the Organizing Committee and advance notification of the top-selected nominees began. This step-wise process of notification, following the ranked listed and balancing expertise, region, indigenous participation and gender, continued as contacted nominees informed us that they were either no longer available or had funding to cover some of their expenses. As a result, additional nominees could then be invited, and they were notified in their turn. This rolling and sequential series of notifications continued until 25 May when the budgetary envelope for mission costs was exhausted, and the final participants invited.

Composition of the Final Participants List

The final list of 28 experts (including 21 selected experts and 7 experts that are members of the Organizing Committee) appears in Annex D. It includes a wide range of expertise in relation to indigenous and local knowledge, including both natural and social scientists, as well as 9 indigenous peoples (several of whom are also trained scientists). Nominators can be commended for the relatively large number of indigenous nominees (38). The proportion of indigenous exerts at the workshop (33%) is lower than the proportion of indigenous nominees (36%), in part because some indigenous nominees could not be chosen because they did not have a sufficient command of English, the only working language of the workshop. Although the gender ratio of 11 women experts to 17 men (39%) falls short of parity, it improves on the overall gender ratio amongst the nominees (33%).

The 28 experts came from 23 countries. In the few cases where two experts are from the same country, one was an indigenous person or a MEP member. The regional breakdown of 28 experts follows:

- African States - 7
- Asia-Pacific States - 7
- Eastern European States - 1
- Latin American and the Caribbean States - 6
- Western European and Other States (WEOS) – 7

The low number of experts from Eastern Europe reflects the low number of nominations received (1 expert selected out of 4 nominations).

A Table with an analysis of the composition of the 106 nominees and that of the 28 experts appear in Annex E.

A large number of nominees had a high level of expertise with respect to the workshop theme. Accordingly, not all nominees with experience and expertise relating to indigenous and local knowledge could be retained for the workshop. Through the selection process described above, the OC attempted to select in a rigorous, fair and transparent manner the most appropriate group of experts for the Tokyo workshop. Unfortunately, due to budgetary restrictions, only a small portion of the large number of nominated experts could be invited to participate. Competition was particularly stiff for the WEOS group due to the large number of nominations from this region.

Nominees who were not selected for participation in Tokyo were invited to continue to stay engaged in this stream of IPBES work and to review and comment on the outputs of the Tokyo event.

The question arose whether non-selected nominees could participate in the Tokyo workshop as self-funded Observers. Consistent with other IPBES events, Observers participation was not accepted in order not to upset regional and other balances achieved through the expert selection process.

Annex D: List of Invited Participants

International Expert and Stakeholder Workshop on

The Contribution of Indigenous and Local Knowledge Systems to IPBES: Building Synergies with Science

9-11 June 2013

Venue: United Nations University,
Institute for Sustainability and Peace (UNU-ISP) Tokyo

List of Invited Participants

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Annex E: Analysis of Profiles of Participants

Overview of Nominations								
	Total Received	106						
			Male		Female		IP/LC	
Region	Africa	19	17	89%	2	11%	8	42%
	Asia-Pacific	34	27	79%	7	18%	11	32%
	Eastern Europe	4	2	33%	2	50%	2	50%
	Latin America and Caribbean	16	7	44%	9	56%	6	38%
	Western Europe and Others	33	18	55%	15	45%	11	33%
	Total	**106**	**71**		**35**		**38**	**36%**
Nomination by	Member/Observer	30						
	Stakeholder	65						
	MEP	11						

Overview of Experts Selected by the Organizing Committee			**% nominations accepted**
	Total Nominations Retained	21	20%
	Experts on Organizing Committee	7	
	Total Workshop Experts	**28**	
			% against nominations received
Region	Africa	7	37%
	Asia-Pacific	7	21%
	Eastern Europe	1	25%
	Latin America and Caribbean	6	38%
	Western Europe and Others	7	21%
Nomination by	Member/Observer	3	10%
	MEP	6	55%
	Stakeholder	11	17%
Gender	Female	11	39%
	Male	17	61%
IP/LC	IPs	9	32%

Annex F: Background Paper

International Expert and Stakeholder Workshop on

The Contribution of Indigenous and Local Knowledge Systems to IPBES: Building Synergies with Science

Convened by the Multidisciplinary Expert Panel of the Intergovernmental Platform for Biodiversity and Ecosystem Services (IPBES)
Hosted by the Ministry of the Environment Japan
Co-organized by UNESCO and UNU

Date: 9-11 June 2013
Venue: United Nations University,
Institute for Sustainability and Peace (UNU-ISP) Tokyo

Background Paper

1. Context

The 'Intergovernmental Platform on Biodiversity and Ecosystem Services' (IPBES) was established as the leading intergovernmental body for assessing the state of the planet's biodiversity, its ecosystems and the essential services they provide to society. 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. IPBES is unique in that it will aim to strengthen capacity for the effective use of science in decision-making at all levels.

At the third meeting towards the establishment of IPBES in 2010, Members adopted the Busan Outcome whereby they agreed *inter alia* that an IPBES should be established; collaborate with existing initiatives on biodiversity and ecosystem services; and be scientifically independent. One of the principles in the Busan Outcome was that IPBES would

> *Recognize and respect the contribution of indigenous and local knowledge to the conservation and sustainable use of biodiversity and ecosystems* (Busan Outcome, paragraph 7(d). UNEP/IPBES/3/3)

In fulfillment of this principle, the first Plenary of IPBES (IPBES-1) requested the Multidisciplinary Expert Panel (MEP) to convene a multidisciplinary and regionally-balanced expert and stakeholder workshop to provide input on the contribution of indigenous and local knowledge systems to the Platform. As a contribution to the IPBES intersessional

process, the Ministry of the Environment of Japan has generously offered to host this workshop, which is to be co-organized by UNESCO and UNU in close collaboration with the MEP. Members, observers and other stakeholders were invited to nominate experts and stakeholders with relevant expertise and experience for participation in the workshop.

2. IPBES-1 decisions relevant to the organization of this meeting

At IPBES-1, the following decisions were taken in relation to the development of the IPBES work programme. Under the header Knowledge Systems, the Plenary:

> Requests the secretariat to compile all comments received on the information document on recognizing indigenous and local knowledge and building synergies with science (IPBES/1/INF/5), and to support the Multidisciplinary Expert Panel in convening a multidisciplinary and regionally balanced expert and stakeholder workshop, among other actions, to provide input on this matter in developing the conceptual framework and other aspects of the work of the Platform.
>
> Invites members, observers and other stakeholders to submit nominations to the secretariat for participation in the multidisciplinary and regionally balanced expert workshop for consideration by the Multidisciplinary Expert Panel.
>
> Requests the Multidisciplinary Expert Panel to recommend possible procedures and approaches for working with different knowledge systems for consideration by the Plenary at its second session, drawing on the inputs received. (*Decision IPBES/1/2 Next steps for the development of the initial IPBES work programme, paragraphs 9-11.* IPBES/1/12).

3. Objectives and Expected Results of the Expert Meeting

3.1. Objectives

a) Examine and identify procedures and approaches for working with indigenous and local knowledge systems in the framework of IPBES.
b) Review and assess possible conceptual frameworks for the work of IPBES that are based on or accommodate indigenous and local knowledge systems and worldviews.

3.2. Expected outcomes

A report of the meeting that will provide

- For consideration by the MEP, key messages and recommendations for procedures and approaches for working with indigenous and local knowledge systems in the framework of IPBES
- For consideration by the MEP, key messages and recommendations for conceptual frameworks that based on or accommodate indigenous and local knowledge systems and worldviews

3.3. Provisional Agenda

It is attached separately as Annex (G)

4. Working document

The IPBES Note by the Secretariat on *Consideration of initial elements: recognizing indigenous and local knowledge and building synergies with science* (IPBES/1/INF/5) (http://www.ipbes.net/images/documents/IPBES_1_INF_5_En.pdf) forms the main working document for the meeting. It is attached separately as Annex (_).

From 26 February – 15 April 2013, governments and other stakeholders were invited to review INF/5. These comments can be viewed at: http://www.ipbes.net/intersessional-process/comments-received.html

5. Organization and Participation

An Organizing Committee was formed to assist the IPBES Multidisciplinary Expert Panel with the logistical and organizational details of the meeting. Annex (B) details the list of Organizing Committee members.

The list of participants is attached separately as Annex (D).

6. Resource materials

A. Other IPBES documents relevant to discussions on indigenous and local knowledge

- IPBES Note by the Secretariat *Critical review of the assessment landscape for biodiversity and ecosystem services* (IPBES/1/INF/8)
  In particular Section V. Experience with integrating input from diverse knowledge systems (p. 10-13) (http://www.ipbes.net/images/IPBES_1_INF_8_En.pdf)

- IPBES Note by the Secretariat *Outcome of an informal expert workshop on main issues relating to the development of a conceptual framework for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (IPBES/1/INF/9)
  In particular Key Message 3 that 'conceptual frameworks can be used to facilitate the inclusion of indigenous and local knowledge systems' (p. 13)
  (http://www.ipbes.net/images/ipbes_1_inf_9_en1.pdf)

- IPBES Note by the Secretariat *Draft procedures for the preparation, review, acceptance, adoption, approval and publication of assessment reports and other Platform deliverables* (IPBES/1/INF/3) (http://www.ipbes.net/images/IPBES_1_INF_3_En.pdf)

B. General IPBES decisions from IPBES-1

- IPBES 2013 intersessional timetable (www.ipbes.net/intersessional-process)
- IPBES Policies and procedures (http://www.ipbes.net/policies-and-procedures)
- IPBES-1 Decisions (http://www.ipbes.net/resources/2013-05-14-13-36-16/ipbes-1) with reference to
  - Rules of procedure for the Plenary of the Platform (IPBES/1/1), Next steps for the development of the initial IPBES work programme (IPBES/1/2)
  - Procedure for receiving and prioritizing requests put to the Platform (IPBES/1/3)
  - IPBES administrative and institutional arrangements (IPBES/1/4)
  - Status of contribution and initial budget for the Platform for 2013 (IPBES/1/5)

Annex G: Workshop Agenda

International Expert and Stakeholder Workshop on

The Contribution of Indigenous & Local Knowledge Systems to IPBES: Building Synergies with Science 9-11 June 2013

Venue: United Nations University, Institute for Sustainability and Peace (UNU-ISP) Tokyo

Draft Workshop Agenda

Saturday, June 08, 2013	
Arrival of international participants Check-in of international participants at Shibuya Tokyu Inn 1-24-10, Shibuya, Shibuya-ku, Tokyo, 150-0002 Tel (81) 3-3498-0109 Fax (81) 3-3498-0189	

Sunday, June 09, 2013	
8:30 to 8:50 AM	Registration
9:00 to 10:00 AM	**Opening Ceremony** Welcoming remarks from Dr. David M. Malone, UNU Rector Mr. Kazunori Tanaka, Senior Vice-Minister for the Environment, Government of Japan Mr. Kazuo Todani, Director-General, Research and Development Bureau, Ministry of Education, Culture, Sports, Science and Technology, Government of Japan Professor Zakri Abdul Hamid, Chair, IPBES (Intergovernmental Platform for Biodiversity and Ecosystem Services) Bertie Xavier, Member of the UN Permanent Forum on Indigenous Issues (PFII) Dr. Gretchen Kalonji, Assistant Director-General for the Natural Sciences, UNESCO (TBC)
10:00 to 10:30 AM	Break

10:30 AM to 12:30	**Contributions of Indigenous & Local Knowledge Systems to IPBES: Building Synergies with Science** Chair: Professor Takeuchi, UNU **Indigenous & Local Knowledge (ILK) in Biodiversity Conservation & Management: Points of origin and histories of interaction** *Fikret BERKES, Canada (University of Manitoba)* [15'] **Indigenous Peoples' engagement and experiences in Global Processes for biodiversity assessment and sustainable use** *Joji Carino, Philippines (Ibaloi)* [15'] Panel Discussion: **The diversity of sources and forms of ILK of relevance to IPBES** *Zemede Asafaw, Ethiopia (Addis Ababa University)* [5'] *Manuela Carneiro Cunha, Brazil (University of Chicago)* [5'] *Prasert Trakansuphakon, Thailand (Karen)* [5'] *Henrick Moller, New Zealand (University of Otago)* [5'] ➢ What are the places, livelihoods, practices, social systems, and worldviews associated with indigenous & local knowledge of relevance to IPBES? ➢ Who are the holders of relevant knowledge? ➢ What is the added-value of bringing ILK and Science together?
12:30 to 1:30 PM	Lunch
1:30 to 3:00 PM	**Session 1: Workshop Context and Purpose** Chair: Professor Zakri, IPBES An Overview of IPBES– *(Randy Thaman, IPBES MEP)* An IPBES Conceptual Framework: Outcomes of the international expert workshop *– Salvatore Arico, UNESCO* Indigenous & Local Knowledge in the framework of IPBES, with reference to the Secretariat Note on *"Consideration of initial elements: recognizing indigenous & local knowledge and building synergies with science"* (IPBES/1/INF/5) *– Douglas Nakashima, UNESCO* Workshop goals and process *(UNESCO and UNU)* Organization of the Workshop (*Meeting Co-Chairs*)
3:00 to 3:15 PM	Break
3:15 to 5:30 PM	**Session 2:** Working Group Sessions - **Scoping Experiences, Methodologies and Emerging Opportunities for Bridging across Knowledge Systems** Chair: Workshop Co-Chairs (3) ➢ What approaches, methods and techniques are used to bring together indigenous & local knowledge of biodiversity with scientific knowledge? ➢ What are the methodological challenges of bridging between ILK and science, natural and social sciences, quantitative and qualitative approaches? ➢ What factors contribute to the success or failure to build synergies? ➢ How can these lessons be successfully applied in operationalizing IPBES?
18:00	**Reception at 2nd floor Reception Hall**

Monday, June 10, 2013

9:00 am to 9:30 am	**Reports from Working Groups - Session 2** (10' each)
9:30 am to 12:00 pm	**Session 3:** Parallel Working Groups **a) Conceptual Frameworks/Worldviews of Indigenous Peoples & Local Communities: (in)compatibilities with the IPBES Conceptual Framework?** Chair: Edgar Selvin Perez, MEP Member ➢ Can an IPBES conceptual framework accommodate indigenous & local knowledge and worldviews? ➢ Can multiple frameworks be envisaged? ➢ If not, what are the challenges for indigenous knowledge holders who engage with IPBES? **b) Principles and Protocols of relevance to Indigenous & Local Knowledge** Chair: Phil Lyver, MEP member ➢ What types of principles, protocols and guidelines exist to facilitate the engagement between indigenous & local knowledge holders and science (from global to community scale; compulsory regulations or voluntary arrangements, FPIC, etc.) ➢ What experiences with these protocols can be shared? **c) Engaging Indigenous Knowledge-holders in IPBES and its Functions** Chair: Randy Thaman, MEP member ➢ What factors promote or limit ILK-holder engagement in IPBES? ➢ What measures might be taken to expand opportunities for an active and equitable dialogue?
12:00 pm to 1:30 pm	Lunch
1:30 pm to 5:30 pm *(Break from 3:00 to 3:15)*	**Session 4:** Working Group Sessions – **Identifying Gaps and Needs with respect to Procedures and Approaches for working with Indigenous & Local Knowledge in the Framework of IPBES** ➢ What major gaps in our understanding and implementation capacity must be addressed in order to identify Procedures and Approaches to bring ILK into IPBES

Tuesday, June 11, 2013

9:00 am to 10:30 am	**Reports from Working Groups - Sessions 3 and 4**
10:30 am to 11:00 am	Break
11:00 am to 12:30 pm	**Session 5:** Plenary discussion - **Key Messages and Recommendations to the MEP on bringing Indigenous & Local knowledge into the work of IPBES, and on the IPBES conceptual framework**
12:30 pm to 1:30 pm	Lunch

1:30 pm to 5:30 pm *(Break from 3:00 to 3:15)*	**Session 6**: Plenary Discussion continued - **Key Messages and Recommendations to the MEP on bringing Indigenous & Local knowledge into the work of IPBES, and on the IPBES conceptual framework** **Finalization of outcomes** **Final wrap-up and next steps**

Wednesday, June 12, 2013

	International participants check-out from Shibuya Tokyu Inn Departure of international participants

Annex H: Messages from Opening Ceremony

(Texts to be added in the final laid out version of the workshop report)

Annex I: Key Messages on Procedures and Approaches for working with ILK in the Framework of IPBES

Discussions of procedures and approaches for working with ILK took place during the opening day plenary and in parallel working groups. The key messages from those discussions are summarized below and grouped under the themes:

1. Rethinking Relationships: Science(s) and Indigenous and Local Knowledge
2. Fundamental Aspects of Indigenous and Local Knowledge
3. Principles for Engagement with Indigenous and Local Knowledge Holders
4. Capacity-building needs

1. Rethinking relationships: Science(s) and Indigenous and Local Knowledge

Disconnection and lack of synergy between natural and social sciences/humanities:

The absence of synthesis and synergy amongst scientific disciplines, in particular the unresolved challenge of bridging between the natural sciences and the social and human sciences, is symptomatic of the larger challenge of building synergies between knowledge systems. 'Putting all of science into one box' remains problematic due to the compartmentalization of disciplines in the natural sciences, social sciences and humanities. Indigenous and local communities, on the other hand, adhere to a more holistic perspective in which environment, economy, society, and spirituality recognized as being closely interrelated. There is a critical need for an approach that is interdisciplinary (bridging scientific disciplines, especially between the natural and social sciences) and transdisciplinary (bridging knowledge systems). This is particularly important both within the MEP, in terms of stakeholder engagement and in the down-scaling of IPBES deliverables from the global, regional and sub-regional to the national and local.

Limitations of sciences that are reductionist and quantitative:

Conventional scientific approaches and methodologies are largely inadequate for addressing the vast cultural and natural diversity which must be considered when addressing threats to biodiversity and ecosystem services. These limitations have been further exacerbated by an over-emphasis on "hard" sciences and on quantitative rather than qualitative research. The term 'science' is often used in too narrow a sense, excluding the social and human sciences.

Limitations of scientific validation processes:

There are innumerable examples in the scientific literature of indigenous and local knowledge and practices that are initially unintelligible to scientific interpretations and attempts at validation. For example, scientists have carried out independent research for decades on the role of fire in tropical savannah environments before finally concluding that traditional firestick management was the modality best-adapted to managing the biodiversity values of these landscapes. This initially-maligned traditional practice is now the cornerstone of national park management policy in Australia. As indigenous and local knowledge is rooted in empirical and philosophical traditions that are temporally-deep and thematically-broad, their outcomes and systems of explanation may

confound validation efforts using the reductionist and quantitative approaches of science. In some cases, as in the example of firestick management, science may shift from an initial position of skepticism to one of agreement, after a long period in which scientists adjust their methods and analyses in the light of indigenous and local understandings. In other cases, scientific efforts to validate may require considerably more investment, or may not succeed at all (e.g. diagnosing/treating disease and medical problems, predicting weather such as rain/drought, explaining hunting/fishing success or failure, etc.). Either way, the limitations of scientific validation processes are as much an issue as the exactitude of indigenous and local knowledge. In short, scientific validation as a prerequisite to acknowledging indigenous and local knowledge is not considered to be an appropriate way forward for IPBES. Other modalities such as co-production of knowledge or use of a multiple evidence base should be further explored.

Complementarity and synergy building rather than integration of knowledge systems:

Integration infers an inequality between knowledge systems, as one set of knowledge is 'integrated' or absorbed into the other. This is usually understood as an integration of indigenous and local knowledge into science, in accordance with scientific principles, criteria and validation processes. Integration is not considered to be an acceptable approach for IPBES, as it presupposes a hierarchy amongst knowledge systems (with science being dominant), which may limit insights from other knowledge systems, as well as the creative potential from synergies between knowledge systems. Recognition of the complementary nature of knowledge systems, as well as the potential for building synergies, was considered the appropriate approach for IPBES.

Not only science but knowledge:

Throughout IPBES documents and processes, the more encompassing term 'knowledge' should be systematically applied, replacing the more limited term of 'science' (which, as indicated above, is often used in the context of IPBES in the even more narrow sense of 'science' as the natural sciences).

2. Fundamental Aspects of Indigenous and Local Knowledge

One size does not fit all - Need for a diversity of approaches that understand, respect and are adapted to local values, norms, customs, taboos:

Building synergies between knowledge systems requires an in-depth understanding of the incredible diversity of political, social, cultural, religious and environmental contexts, including the specificity of correct social interaction with respect to gender, age or status. For IPBES, establishing procedures and approaches that accommodate this enormous variability is a *sine qua non* for bringing science together with indigenous and local knowledge of relevance to assessments.

Not only knowledge but practice:

When considering indigenous and local knowledge relating to biodiversity and ecosystem services, it is essential to also consider the practices and know-how that are part and parcel of knowledge. Knowledge should not be viewed as abstract and disconnected from the ways in which peoples act upon their environments and utilize its resources. Indigenous and local knowledge holders do not segregate knowledge from practice as both, in interaction, are sources of innovation, learning and new understandings. In the scientific arena, science is considered to be distinct from technology, and theory is separated from practice. If IPBES is to achieve its ultimate objective of contributing

to halting biodiversity decline, then these additional compartmentalization must also be overcome, including the divide between scientists and practitioners on-the-ground, such as renewable resource managers, protected area managers or extension agents.

Importance of languages:

Indigenous and local languages are essential vessels for nurturing and transmitting biodiversity knowledge (e.g. through vernacular naming conventions (nomenclature) and classification systems (taxonomies)). Dialogue on biodiversity and sharing across knowledge systems will pass (or fail) first and foremost by successful exchange across linguistic barriers, which means rigorous translation not only of words (with their correct semantic fields) but also of concepts. In the same way that scientists are trained to master and uphold the precision and rigour of 'scientific language', indigenous and local knowledge experts master and uphold the rigour and precision of terminology in their indigenous languages, including with respect to biodiversity. IPBES must therefore pay attention to the central importance of indigenous and local languages, as vessels and vehicles for indigenous and local knowledge of biodiversity and ecosystem services.

Recognition of the specific roles and critical knowledge of women:

It is essential for IPBES to take into account in its procedures and approaches the critical importance of the complementary and differential knowledge of women with respect to biodiversity. Also to be reflected is that fact that in many societies, women's knowledge can only be accessed by certain persons. In many Polynesian, Melanesian and Australian Aboriginal societies, for example, taboos are common that restrict men from talking to women, including brothers talking to sisters. Muslim societies also have important gender-related proscriptions. IPBES must incorporate these gender aspects in its work, and also improve the gender balance in its own bodies.

Importance of spirituality:

The separation of the spiritual from the material is at the origins of scientific thought. This defining feature may hinder the engagement of science with indigenous and local knowledge systems, where such a separation of the spiritual from the material does not exist. As biodiversity knowledge in indigenous and local communities is framed at least in part by the spiritual, and by non-material relationships between human and non-human beings, IPBES must also develop procedures and approaches that can respectfully accommodate both scientific and indigenous worldviews.

3. Principles for Engagement with Indigenous and Local Knowledge

Problem-oriented approach/Multi-causal approach:

There is a need to start with a problem-oriented approach to identifying priorities that inform biodiversity research and conservation. This approach should connect to objectives and problems as identified by local communities themselves and/or local governments because:

- biodiversity and ecosystem services mean different things to different people/groups,
- conservation means different things to different people,
- local areas and biodiversity inheritances and livelihoods are complex,
- most problems are complex and multi-causal, and

- most knowledge is linked to solving practical problems.

Sciences and ILK should be linked from project conception to outputs:

Research and assessments should be conducted together in the field, as equals, so as to ensure co-production of knowledge. Indigenous peoples and local communities should participate in assessing the process of knowledge production. Building ownership of outputs is also critical, through the return of relevant findings in appropriate formats to ILK holders and co-authorship to recognize ownership and the central role of ILK holders in the generation of relevant assessments, scenarios and relevant policy for conservation and co-management of biodiversity and ecosystem services,

Building mutual trust and respect:

Successful engagement with indigenous peoples and local communities requires mutual trust and respect. This means investing the time needed to build relationships with local communities and to establish mutual understanding of each other's requirements. The communities need to feel that they have control and ownership when a project is initiated and as it evolves.

Recognition and involvement of resource owners/users and knowledge holders:

To achieve research or conservation objectives, it is important to insure that the original resource holders and knowledge holders are included and involved from the very beginning. To this end, engagement *in situ* is preferred so as to work directly with recognized experts in appropriate local contexts, rather than removing them from the places where their knowledge is situated and has meaning, or relying on intermediaries.

Involvement of appropriate local intermediaries and leadership:

Outsiders need to invest time to understand which leaders or knowledge holders are trusted and influential. Local intermediaries or leaders who are engaged with the work may facilitate building local confidence. In other cases, local authorities may yield the opposite result and impede progress. Making well-informed choices about local collaborators is an essential requirement for IPBES.

Ethical approaches to working with indigenous peoples and local communities:

In the framework of IPBES, all scientists need to be made aware of the ethical requirements for working with indigenous and local knowledge in indigenous and local communities, and must tailor their methodologies accordingly. Examples of relevant ethical guidelines include:

The Tkarihwaié:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities Relevant to the Conservation and Sustainable Use of Biological Diversity.

Cultural safety guidelines and agreements between scientists and ILK holders that guide their behaviour, responsibilities and accountability relating to knowledge acquisition, ownership, release, implementation, sharing, and community capacity building.

Free, prior and informed consent (FPIC):

FPIC, as described in the UN Declaration on the Rights of Indigenous Peoples, was considered to be a pre-condition for success when bridging between indigenous and local knowledge and the

sciences. Furthermore, indigenous intellectual property rights relating to knowledge of interest to IPBES must be recognized and assured.

Clear and mutually-agreed-upon agendas:

There is a need to make clear what the agendas are, who is to benefit and how, how long it will take, how local people are to be compensated, how long you agree to work together, how results will be distributed, who can publish and under what conditions, who will be the authors/owners, how to deal with the media, etc.

Sharing the benefits of research:

Scientists ask local communities to share their knowledge but in turn do not necessarily share research findings and outputs. The participation of indigenous and local people should be recognized by scientists, and there is a need to share the benefits of research, and to return outputs to the communities.

Need for compensation/provide return value:

It is important to confer value on consultations/research with indigenous and local knowledge holders, and to make clear the responsibilities and associated benefits. Benefits may be in non-monetary, however most communities, even in remote locations, are tied into the money economy.

4. Capacity-building needs

Importance of education and awareness-raising:

The need for education and awareness-raising in this emerging area of work was repeatedly emphasized. Capacity-building is required on both sides, and in both directions, with scientists receiving training on indigenous and local knowledge, and indigenous peoples being trained on science. Furthermore awareness-raising is required with all key stakeholders, including decision-makers, management practitioners, protected area managers, the private sector, the general public etc.

Training scientists about indigenous and local knowledge:

Contemporary science education is not self-reflexive, and continues to educate young scientists to accept science as a unique and superior knowledge form, while marginalizing historical and philosophical research that sets such claims into a broader perspective. Science education does little to prepare scientists to acknowledge and respect other systems of knowledge. IPBES goals would be served by efforts to expose scientists to a more inter-cultural understanding of human-environment relations and the diversity of related knowledge systems.

Indigenous and local knowledge in education curricula:

Formal education curricula, for indigenous and non-indigenous students alike, should include teachings about and based upon indigenous and local knowledge. Indigenous-based content relating to biodiversity should be taught alongside or as part of science education, but without science serving as a filter or gate-keeper for knowledge from other cultures. Particular importance should be placed on the involvement of ILK holders as teachers and curriculum developers in order to build two-way synergies between ILK and science in the formal education system.

Building awareness about IPBES amongst indigenous peoples:

More time should be given to indigenous peoples and local communities to be informed about IPBES and to inform the IPBES process through systems for delivering ILK. IPBES could provide a centralized place for communities to bring their concerns to the attention of scientists.

Building capacities of local/indigenous scientists:

Indigenous peoples who have been raised in their own cultures and knowledge systems and who then become scientists, may help bridge across knowledge systems. They may also better engage local communities because there is more trust in their 'own' scientists. The provision of a fellowship programme is a goal of Objective 1 in the draft IPBES Work Programme (to "*Enhance the foundation of the knowledge policy interface for biodiversity and ecosystem services*"). This fellowship programme could be opened to recipients from indigenous and local communities with an emphasis on training in both the sciences and ILK systems.

Loss of ethnobiodiversity may be a more serious crisis that the loss of biodiversity:

Indigenous and local knowledge is lost as older generations pass away, livelihoods and lifestyles change, schools teach only mainstream languages and scientific knowledge, environments are transformed, access to traditional territories and resources is barred, etc. For IPBES, this loss of ethnobiodiversity may be one of the most serious constraints to the actual conservation and sustainable use of biodiversity and ecosystem services. Erosion of indigenous knowledge reduces opportunities to benefit from understandings rooted in long histories of interaction with the natural environment, and diminishes insights from building synergies with science.