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Initial elements for an approach towards principles and procedures for working with indigenous and local knowledge systems proposed for use by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

Note by the secretariat

In its decision IPBES/1/2, the Plenary requested 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. Accordingly, the Panel, in collaboration with the United Nations Educational, Scientific and Cultural Organization and the United Nations University, convened an international expert workshop on the theme "The contribution of indigenous and local knowledge systems to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services: building synergies with science". Based on the deliberations at and outputs of the expert workshop, the annex to the present note sets out initial elements for a preliminary guide that may be useful during the first round of the thematic, subglobal and global assessments of the Platform. These elements may also provide a first step towards the elaboration of a guide on procedures and approaches for working with indigenous and local knowledge systems that would address all four of the Platform's functions, which is included as a deliverable of the proposed work programme 2014–2018 (see document IPBES/2/2, deliverable (c) under objective 1). The annex is presented as received and has not been formally edited.

* IPBES/2/1.

Annex

Initial elements of an IPBES approach:

Towards principles and procedures for working with

Indigenous and Local Knowledge (ILK) systems

Prepared by IPBES MEP and Bureau Working Group on ILK systems

in conjunction with UNESCO

Revised draft

5 October 2013

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1.0. BACKGROUND AND GOAL

At the first Plenary of IPBES (IPBES-1) that took place in January 2013 in Bonn, the following decisions were taken in relation to the development of the IPBES work programme with respect to 'Knowledge Systems':

> *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*

Responding to this decision, UNESCO on behalf of the IPBES secretariat compiled comments received on the information document (INF/5) on recognizing indigenous and local knowledge (ILK) and building synergies with science, and integrated these comments into a revised version with bracketed text.

Furthermore the international expert workshop on 'The Contribution of Indigenous and Local Knowledge Systems to IPBES: Building Synergies with Science' was convened by the IPBES MEP and co-organized by UNESCO and UNU (Tokyo, 9-11 June 2013). Experts at the workshop formulated a series of Recommendations and Key Messages contained in the draft workshop report.

From the workshop report, the following recommendation is of particular relevance for the present document. It proposes the meaningful inclusion of ILK and ILK holders in all aspects of IPBES work, as well as the inclusion of ILK not only in carrying out the IPBES assessment function, but also in fulfilling the three additional functions of policy support, knowledge generation and capacity-building.

> *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).*
>
> *Recommendation 1 from the international expert meeting on 'The Contribution of Indigenous and Local Knowledge to IPBES' (Tokyo, 9-11 June 2013)*

Furthermore, experts from the Tokyo workshop recommended that IPBES organize a step-wise process under the auspices of an [interim] working group. This working group would ensure that IPBES adopts a state-of-the art set of procedures and approaches by conducting the necessary scoping of experience, analyzing gaps, identifying continuing challenges and emerging solutions, and developing innovative modalities for working with ILK across all four IPBES functions.

> *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*[1]*, 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;*
>
> 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.*
>
> *Recommendation 3 from the international expert meeting on 'The Contribution of Indigenous and Local Knowledge to IPBES' (Tokyo, 9-11 June 2013)*

Recommendations from the workshop were reviewed by the IPBES Bureau and MEP at its meeting in Cape Town, South Africa (27-30 August 2013) and are to be considered by the IPBES Plenary at its second meeting in Antalya, Turkey (9-13 December 2013). The current draft work programme that is being prepared for consideration by the second IPBES Plenary proposes under Deliverable 1(c) that a time-bound and task-specific expert group will be established to further develop a guide on '*procedures and approaches for working with indigenous and local knowledge systems*' for approval at IPBES-4 (anticipated in early 2016) so that it can inform the process for developing other ongoing IPBES deliverables, in particular the regional/sub-regional assessments. The proposed actions will contribute towards fulfilling the recommendations from the Tokyo workshop. Further support will therefore likely be required in order for IPBES to adhere to its Operating Principles and meet its work programme objective of 'effectively integrating (including)' indigenous and local knowledge as an important function of the platform.

[1] 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.

While awaiting the forthcoming deliberations and decisions of the MEP and Plenary on the Tokyo workshop recommendations and on the larger framework for IPBES action with respect to indigenous and local knowledge systems, this document attempts to advance reflection in one limited area of IPBES work. Based on the deliberations and outputs from the Tokyo workshop, it proposes initial elements for a preliminary guide that may serve during the first round of IPBES thematic, sub-global and global assessments. This preliminary guide may also serve as a first step towards the guide on procedures and approaches for working with indigenous and local knowledge systems that would address all four IPBES functions.

2.0. INTRODUCTION AND BASIC CONCEPTS

In the face of the global biodiversity crisis and its emerging challenges and unknowns, it is essential that decision-makers and practitioners base policies and actions on the best available knowledge. The bio-physical and social sciences contribute significantly to our collective understanding of earth systems, social systems and their interactions. However, there has been a growing awareness that scientific knowledge alone is inadequate for addressing the erosion and degradation of biodiversity and ecosystem services. In particular, the knowledge of indigenous peoples and local communities – often referred to as local, indigenous or traditional knowledge – is increasingly recognized as a source of vital importance.

This chapter provides a brief introduction to basic definitions and concepts in the field of indigenous and local knowledge (ILK) as it relates to the sustainable use of biodiversity, its conservation and related decision-making. Reference is made to numerous studies that document how indigenous knowledge has provided the basis for more informed and effective decision-making with respect to biodiversity.

2.1. Who are 'indigenous peoples'?

Indigenous peoples live in all regions of the world and own, occupy or depend on resources from approximately 22% of the global land area, which in turn harbors 80% of the world's biological diversity (UNDP, 2011: 54). They are estimated to number some 370 million people, and represent the greater part of the world's cultural diversity (UNPFII, n.d.), including the major share of the world's almost 7000 languages (Harrison, 2007). At the nexus of the world's cultural and biological diversity, indigenous knowledge, practices and worldviews contribute importantly to the conservation and sustainable use of genetic, species and landscape diversity.

In view of the global distribution of indigenous peoples, the diversity of their environments and cultures, their varied histories of contact and interaction with other societies, and the broad spectrum of political contexts in which they live, it is impossible to formulate a definition of 'indigenous peoples' with universal application. Operational definitions converge around a set of core criteria that generally include:

- maintenance of social and cultural traits distinct from those of mainstream or dominant society (which may include distinct languages, production systems, social organization, political and legal systems, spirituality and worldviews, among other aspects);
- ties to ancestral territories and to the natural resources of these places;
- self-identification and recognition by others as being part of a distinct cultural group (Cobo, 1986);
- In many instances, reference is also made to a historical or continuing experience of subjugation, dispossession and marginalization.

Whereas application of the term 'indigenous peoples' has been relatively straight forward in regions and countries with a clear history of colonial occupation such as North, Central and South America, Australia, New Zealand and the Pacific Islands, use of the term has proven to be more complex in other regions such as Africa and Asia. The African Court of Peoples and Human Rights has recently made an important effort to clarify the concept in the African region, proposing

criteria similar to those listed above but adapted to the continent's context and history, and proposing an open-ended listing of African indigenous peoples.

Terms used to designate indigenous peoples vary considerably with place, social context and historical moment. Native, aboriginal or tribal peoples, hill tribes, traditional owners, scheduled tribes, sea gypsies, Indians, bushmen, First Nations or ethnic minorities are only a few of the many terms that may be applied to and by indigenous peoples. Other names are more clearly derogatory such as savages, primitives or 'indigenes' (as opposed to the more neutral French term 'autochtones'). Some members of indigenous groups may hide their identity due to the negative connotations of the 'indigenous label' in some countries and contexts (Montenegro and Stephens, 2006). Many groups that self-identify as indigenous peoples are not recognized as such by the countries in which their homelands exist. Many indigenous homelands extend across national borders, and in some cases a single people may find themselves divided among several countries (UNPFII, n.d.).

2.2. What is indigenous and local knowledge?

The terms 'indigenous and local knowledge' make reference to knowledge and know-how accumulated across generations, which guide human societies in their innumerable interactions with their surrounding environment. Berkes defines such traditional ecological knowledge as: 'a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment' (2012: 7).

These knowledge systems are transmitted and renewed by each succeeding generation, and ensure the well-being of people around the globe by providing food security from hunting, fishing, gathering, pastoralism or small-scale agriculture, as well as healthcare, clothing, shelter and strategies for coping with environmental fluctuations and external forces of change (Warren, Slikerveer and Brokensha 1995; Sillitoe, Bicker and Pottier, 2002; Nakashima and Roué, 2002; Sillitoe, 2007).

An abundance of labels for this knowledge co-exist in the literature. Common terms include but are not limited to indigenous knowledge, traditional knowledge, traditional ecological knowledge (TEK), local knowledge, farmers' knowledge, folk knowledge and indigenous science. Although each term may have somewhat different connotations and reference groups, they often share sufficient meaning to be utilized interchangeably in many contexts (Berkes, 2012; Nakashima and Roué, 2002). While many of examples put forward relate to knowledge developed and maintained by indigenous peoples, it should be kept in mind that valuable local knowledge of relevance for biodiversity assessment is also held in non-indigenous, rural societies (Grabherr, 2009; Lawrence, 2009). To capture both of these major sets of knowledge, the term indigenous and local knowledge (ILK) is the principle term used throughout this document.

In this document, the term 'knowledge' is used in its broadest sense. In Occidental cultures, knowledge (in particular, scientific knowledge) is often distinguished from practice (e.g. science vs. technology) and the rational is opposed to the spiritual (e.g. science vs. religion). In indigenous worldviews, however, these elements are combined in a holistic understanding of interaction with the surrounding environment. Indigenous knowledge thus encompasses not only empirical understandings and deductive thought, but also community know-how, practices

and technology; social organization and institutions; and spirituality, rituals, rites and worldviews. For the purposes of this document, indigenous and local knowledge marries the rational with the symbolic, and interlinks the theoretical, empirical, and practical (Nakashima and Roué, 2002).

2.3. What is the relevance of indigenous and local knowledge to IPBES?

People in all world regions have developed, nurtured and passed on extensive and sophisticated knowledge about the bio-physical environment that has allowed them to survive and prosper in virtually all of the world's ecological systems. With the growing pre-eminence of science, this local, traditional and indigenous knowledge has tended to be stereotyped as archaic, anecdotal, irrational and riddled with superstition.

Interdisciplinary research during the last several decades, however, has countered these misrepresentations. The contributions of indigenous and local knowledge systems towards a better understanding of biodiversity and its sustainable use and management, has been recorded in the scientific and gray literature in many domains: biodiversity conservation and wildlife management (Freeman and Carbyn, 1988; Inglis, 1993; Berkes, 2012), customary marine resource management (Johannes, 1978; 2002; Hickey, 2006; Haggan, Neis and Baird, 2007), rural development and agroforestry (Falanruw, 1989; Scoones and Thompson, 1994; Sillitoe, Bicker and Pottier, 2002), traditional medicine and health (Ford et al., 2010; Pourchez, 2011), impact assessment (Sadler and Boothroyd, 1994; Usher, 2000); and natural disaster preparedness and response (Shaw, Uly and Baumwall, 2008).

This extensive documentation illustrates many of the benefits that IPBES could derive from reinforcing synergies between indigenous and local knowledge systems and science. This includes benefits to science and scientists such as:

- more holistic knowledge that inter-relates information across multiple bio-physical, social and human science disciplines;
- historical timeline data that may in some cases extend back over several generations;
- localized and fine-grained observations at inaccessible spatial and temporal scales;
- information from regions and ecological systems as yet poorly known to science or where scientific research has been patchy in time and/or space;
- information and understandings as yet unknown to science or that challenge current scientific thinking and representations;
- observations on the generation, maintenance and use of biodiversity by one of its major user groups.

It also generates benefits for indigenous and local knowledge holders including:

- opportunities to exchange and share knowledge and understandings about their biodiversity (plants, animals, landscapes, etc.) that brings recognition and respect for their societies and cultures;

- opportunities to secure sustainable use (including customary sustainable use) of their biodiversity (plants, animals, landscapes, etc.) that brings recognition and respect for their societies, cultures and knowledge systems;

- opportunities to correct misunderstandings or misinterpretations about local biodiversity based on poor or inadequate science;

- re-affirmation of their identities, as well as their intimate knowledge of and the strength of their ties to homelands and territories;

- engagement with government processes of knowledge generation, assessment and decision-making that have direct impacts on their lives and livelihoods.

Finally strong synergies between indigenous and local knowledge systems and science may provide benefits to decision-makers, including:

- enhanced communication and exchange with major knowledge holders on biodiversity and ecosystems services including both scientists and indigenous and local knowledge holders;

- improved decision-making based upon a more complete, up-to-date, relevant and consensual knowledge base;

- more successful implementation of conservation and management decisions due to the direct involvement of indigenous and local communities who both know and use biodiversity and ecosystem services.

3.0. ELEMENTS FOR AN INITIAL IPBES APPROACH: PRINCIPLES AND PROCEDURES FOR BUILDING SYNERGIES BETWEEN ILK AND SCIENCE

3.1 Engaging with ILK holders and communities: basic requirements

The IPBES work programme includes the goal of 'understanding … how to effectively integrate local and traditional knowledge' as an important function of the platform (UNEP/IPBES.MI/2/9, para. 20). If IPBES is able to build synergies between indigenous and local knowledge systems and science as a basis for more holistic subregional, regional and/or global assessments, it will indeed have made a significant and unique contribution towards better understanding, conserving and managing biodiversity and ecosystems services, while significantly reinforcing the science-policy interface. Included in the Annex are basic steps that could be followed in synergizing ILK with science as a basis for the implementation of the IPBES programme of work.

Before this goal can be satisfactorily attained, however, certain obstacles need to be overcome. They are not insignificant and may include amongst others:

- the mistrust of ILK holders who have suffered from the misappropriation of indigenous and local knowledge, including through biopiracy of medical, pharmaceutical, agricultural and other knowledge without respect, consultation, consent nor benefit sharing;

- the ethnocentrism of scientists and decision-makers who are educated to consider science as superior to other forms of knowledge, and who thus consider that indigenous and local knowledge lacks empiricism, logic and rigour;

- the bias of decision-making institutions and processes that have traditionally upheld the status quo of mainstream society and perpetuated the marginalization of indigenous and local communities without recognizing the importance of their specific knowledge systems, values, priorities, and needs.

This being said, projects across the globe have successfully demonstrated that diverse knowledge systems, whether indigenous, local or scientific, can join forces. During the last several decades, there have been numerous efforts, with varying degrees of success, to recognize and respect indigenous and local knowledge, while building synergies with science. Emblematic cases include the indigenous Inupiat whalers of the North Slope of Alaska (USA) who completely revised population size estimates for the Bowhead Whale in the 1970s based upon their unique knowledge that whales migrate not only along shore leads but also far offshore and, even more surprisingly for whale biologists at the time, that the whales migrate under the ice. Similarly, the Australian national park policy recognises that biodiversity values are best conserved through traditional Aboriginal firestick management. Based upon similar research outcomes, wildlife resource management policy in northern Canada formally requires the incorporation of traditional knowledge alongside science.

While ground-breaking work of this nature has been documented from many places in the world, these achievements have generally been restricted to local and sub-national scales. Efforts to extend to sub-regional, regional and global levels have so far been largely unsuccessful. Bridging knowledge systems was an explicit goal of the Millennium Ecosystem Assessment, but it has remained largely unfulfilled. Today the sub-regional Arctic Biodiversity Assessment is making advances in this challenging area of work, creating opportunities for global platforms such as

IPBES to bring indigenous and local knowledge into regional and global decision-making and action for conserving biodiversity and ecosystems services.

Beyond mere recognition and respect for indigenous and local knowledge, IPBES' stated objectives are to build strong synergies between indigenous and local knowledge and science, and to engage with indigenous and local knowledge holders, as core priorities of the IPBES programme of work. Engagement with ILK should be conducted in accordance with the preliminary principles outlined in Annex 2. Several decades of interaction with ILK holders have made clear that some of the necessary pre-conditions for the success of such engagements include:

Recognizing indigenous peoples as knowledge holders

To appropriately frame its overall action with respect to ILK, IPBES may wish to clearly recognize indigenous peoples and local community members, along with scientists, as knowledge holders of central relevance to the goals of IPBES. Recognizing ILK holders as a group distinct from other "stakeholders" would be in line with the IPBES Operating Principles of the Busan Outcome, as well as Article 8(j) of the Convention on Biological Diversity and Aichi Target 18, all of which recognize and respect the contribution of indigenous and local knowledge to the conservation and sustainable use of biodiversity and ecosystems. Conferring special status on relevant knowledge holders, whether they be indigenous peoples, local community members or scientists, would have important implications for IPBES procedures and approaches for building synergies among diverse knowledge systems.

Establishing mutual trust and respect

Successful engagement among indigenous peoples and local communities, scientists and decision-makers requires mutual trust and respect. This means dedicating the time and energy required to overcome misunderstandings, misconceptions and apprehensions which in some cases may be deeply-rooted, so as to come to a point of mutual acceptance and understanding of each other's observations, interpretations, values, worldviews and priorities. The success of knowledge sharing and collaborative action depends on the degree to which mutual respect and trust can be established, nurtured and maintained as part of a long-term relationship.

Involving ILK in all assessment phases: from conception through to outputs

Efforts to achieve interdisciplinarity regularly fail due to belated efforts to bring on board other disciplines (typically social science disciplines), which some would claim are merely an 'add-on' or 'after-thought'. The weakness of ILK in the MA process may be attributed at least in part to this major shortcoming. If ILK-science collaboration is to succeed in IPBES, it is important that all relevant knowledge holders are involved early (from conception stage), equitably (ensuring equal access to information and decision-making), and consistently (throughout the entire process to assessment outputs). Communities need to know that they have an acceptable degree of control and ownership when an action, such as an IPBES assessment, is initiated and as it evolves. Assessments should be conducted together in the field, as equals, so as to ensure co-production of consensual and policy-relevant conclusions. 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.

Recognition of resource owners/users and knowledge holders

To achieve research or conservation objectives, it is important to ensure 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 removed from the places where their knowledge is situated and has meaning, and instead of 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. Making well-informed choices about local collaborators and the most appropriate avenues through which to engage with them is an essential requirement for IPBES.

Ethical approaches

In the framework of IPBES, all scientists need to be made aware of the ethical requirements for working with indigenous and local knowledge holders in indigenous and local communities, and must tailor their methodologies and protocols 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, is increasingly considered the universal standard for equitable engagement with indigenous peoples and local communities. Synergies between indigenous and local knowledge holders and scientists cannot be developed without partnership, and partnership cannot be established without mutual consent, and a clear understanding of the objectives, reasons for and possible benefits of IPBES engagement with ILK systems. Furthermore, indigenous intellectual property rights relating to knowledge of interest to IPBES need to be recognized and assured.

Benefit-sharing

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. There is, as suggested above, great scope for including local ILK experts as co-authors of IPBES outputs, which achieves the dual goal of ensuring both recognition and ownership of the outputs, as well as providing a basis for their involvement in policy-making to address biodiversity issue

3.2 Working with ILK in IPBES assessments

Having outlined some basic requirements for a successful engagement with ILK holders (Section 3.1), this section proposes initial methods and techniques for bringing relevant ILK into IPBES assessments. While ILK complements science and provides valuable additional data and understandings to improve biodiversity decision-making, it is evident from the previous sections that indigenous and local knowledge is developed, owned, stored, shared, accessed and disseminated in ways that are very different from scientific knowledge. For this reason, procedures identified to incorporate ILK in IPBES assessment processes cannot be expected to be identical to those designed for incorporation of scientific knowledge. If IPBES and its MEP are to attain the stated work programme goal of 'integrating' indigenous and local knowledge into the functions of the platform then alternative modalities, which differ from many of those for science and which are adapted to the unique nature of ILK, need to be developed, adopted and resourced.

3.2.1 Identifying relevant ILK for IPBES assessments

When initiating an IPBES assessment, one of the first challenges will be to determine, in view of the assessment objective, whether ILK holders may be concerned and whether ILK may be relevant. This may be self-evident in cases where assessments concern biodiversity use, processes, genetic resources, species, landscapes or ecosystems services of central importance to the livelihoods, territories and cultures of indigenous peoples and local communities.

For example, the proposed IPBES thematic assessment of 'pollination and its impact on food security' (IPBES Draft Work Programme 2014-18) would no doubt benefit from the knowledge possessed by the numerous indigenous groups who are specialized in wild honey collection and who may therefore offer time-depth observations and knowledge about wild species of honey-collecting bees and other insects, including their distribution, plant-animal interactions and population status (including eventual declines). Indigenous peoples and local communities also have important knowledge about the large number of flowering plants that are essential for their food security and which depend on the health of pollinator populations.

The proposed IPBES 'thematic assessment on degradation and restoration of land and freshwater systems and/or biodiversity and agriculture' provides another example, which relates directly to the livelihoods and social vulnerability of local communities. Local peoples are often best-placed to know how and why their socio-ecological vulnerability increases. Restoring local arrangements that maintain critical resources like water, soil production, refuge and other services can help guarantee the long-term sustainability of local livelihoods and production systems.

In other cases, even though ILK may be of relevance to biodiversity assessment and scenario development, it may be overlooked due to the absence of documentation in the scientific or gray literature, or the ignorance of assigned Authors and Reviewers. In such cases, targeted scoping is essential to ensure that relevant ILK and ILK holders are identified and drawn into the assessment and review processes.

Primary Sources: Identification by ILK holders and ILK researchers

Indigenous and local knowledge holders serve as primary sources of knowledge that may be of direct relevance to IPBES assessments. The challenge for IPBES is to identify the key indigenous peoples and local communities that possess relevant knowledge. A series of nested consultations with indigenous and local communities and researchers with expertise in the domain can be

conducted from the global level down to regional, sub-regional and local levels. For indigenous peoples, numerous interlinked networks exist starting at the highest level with the UN Permanent Forum on Indigenous Issues (UNPFII). From the global, regional, national and down to local levels, these networks can serve as an initial medium to relay IPBES scoping efforts and assist in the identification of primary sources of relevant ILK. Similar professional networks exist amongst researchers and academics specialized in indigenous and local knowledge or related themes, linking global, regional and national expertise.

Identifying groups or individuals with specialized knowledge

Once indigenous peoples or local communities identify themselves or are identified as possessing pertinent knowledge, and express their interest in being involved in an IPBES assessment, it is important to identify within the group those sub-groups or individuals that possess knowledge of particular relevance. While much knowledge is shared and familiar to all, acknowledged experts or specialists exist within most indigenous and local communities. These may be specific older men or women, highly skilled and respected hunters, fisherfolk or gatherers, agriculturalists, crafts persons or traditional health specialists with unique knowledge of medicinal plants. These culturally-designated individuals, groups, lineages or clans may possess specialized knowledge and skills tied to a certain land or sea territory, or specific ecosystem. Understanding the social complexities of knowledge distribution, acquisition, sharing and access within indigenous and local communities, and how these differ from but can be synergized with modern science, may be essential for the success of IPBES' engagement with ILK and ILK holders.

Gender-specific knowledge and IPBES assessments

Women and men commonly fulfill different, but complementary roles and responsibilities in relation to different components of biodiversity and biodiversity use systems, resulting in different knowledge, needs, concerns and priorities. In many island and coastal countries, for example, women generally have greater knowledge of medicinal plants, nearshore small finfish and marine invertebrates, and handicraft plants and animals, whereas men commonly have greater knowledge of timber and woodcarving resources, larger fish and offshore marine resources. Much of this knowledge, regardless of the gender of the holders, may serve as important indicators of the health of biodiversity and ecosystem services in a given area. For these reasons, IPBES assessments may pay special attention to the gender-based nature of ILK knowledge and consider the differential content and relevance of men and women's knowledge for specific assessments.

To identify such gender specific knowledge may require specific procedures and methods. In some societies, for example, women's knowledge is only accessible to specific individuals. In many Polynesian, Melanesian and Australian Aboriginal societies, taboos commonly restrict men from talking to women, including in some societies brothers talking to sisters. IPBES may need to identify targeted procedures in order to benefit from gender-specific knowledge, while respecting the gender-specific protocols of indigenous peoples or local communities.

Geographic considerations when identifying relevant ILK holders

With respect to geographic scale, some sets of indigenous knowledge may coincide with the sub-regional or regional focus of an IPBES assessment. For example, some nomadic or semi-nomadic peoples, including specific families or individuals, may range over large territories of regional scope and collect observations and knowledge that cuts across one or more national boundaries. Other peoples may be less mobile, but because their homelands traverse the

borders of two or more countries, their shared cultural and linguistic heritage and collective knowledge may also contribute importantly to a sub-regional or regional assessment.

For more localized but contiguous groups, the biodiversity knowledge of indigenous and local communities may be juxtaposed to provide relevant knowledge extending across IPBES assessment sub-regions or regions. On the other hand, if an IPBES assessment concerns long-distance transboundary migratory species, then even spatially-limited knowledge may prove to be invaluable where the territory of a group is located at a strategic point along a migratory corridor. This has been demonstrated to be the case for the Rakiura Māori of New Zealand who harvest the chicks of the sooty shearwater, *Puffinus griseus*, at their nesting grounds. In these cases, their site-specific observations and knowledge may provide critical snapshots of population health, abundance, composition or vulnerability, while creating opportunities for co-management and conservation. Such transboundary knowledge may also be critical for monitoring and managing the spread of invasive alien species and diseases at subnational, national and international levels. Understanding and correctly scoping these spatial dimensions of ILK may be of critical importance to assessment processes.

Relevant indigenous practices and techniques for IPBES assessments

Whereas scientists separate science from technology and technique, and differentiate theory from practice, indigenous and local knowledge holders recognize that knowledge is linked to practice and problem-solving, and through practice (seeing and doing), knowledge is transmitted and problems are resolved (including resource overexploitation). When bridging between different knowledge systems, IPBES may need to consider the relevant knowledge expressed not only through abstractions and words, but also through practice and techniques. For example, the practice of Aboriginal firestick management (i.e. when, what and how to burn) harbours within it a profound understanding of the workings of a fire-adapted ecological system and in this manner, it is through practice that biodiversity is created, maintained and managed across entire landscapes. This knowledge expressed through practice may not be immediately available to IPBES assessments in the form of an abstract and reductionist analysis, but may require 'translation' between knowledge systems.

Bridging knowledge systems requires bridging worldviews

The separation of the spiritual from the material can be traced to the very origins of science. This defining feature of scientific philosophy is just as important today, but it may hinder science's efforts to engage with knowledge systems where the spiritual and the material are often interlinked and inter dependent. These fundamental differences in cosmology and worldview need not impede a productive collaboration in the framework of IPBES. Areas of constructive dialogue and exchange can be fostered alongside matters over which one agrees to disagree. Benefiting from previous experiences of productive partnerships between ILK holders and scientists, IPBES may wish to build the capacities of its collaborators in order to foster productive knowledge-sharing arrangements based on mutual respect for each other's philosophies, cosmologies and worldviews.

Secondary sources: ILK documented in the scientific and gray literature

In the scoping phase of IPBES assessments, reviews of the scientific and gray literature may reveal the existence of documented ILK that is of relevance to IPBES assessments. ILK relating to biodiversity and ecosystems services may have been documented in the framework of indigenous land claim processes, environmental and social impact assessments, studies of wildlife populations and distributions, protected area establishment, tourism initiatives, or any

number of other undertakings. ILK may also have been collected by indigenous and local communities as part of efforts to record and preserve their knowledge, language and culture, or as academic efforts to understand indigenous societies and cultures and their biodiversity inheritances. In some cases, documentation is available due to the efforts of early explorers or religious groups.

Given the global scope of IPBES and the range of potential biodiversity-related assessment themes, the volume and scope of documented ILK is often quite limited. Furthermore, the recorded data may not correspond with the specific needs of the IPBES assessment as the earlier documentation undoubtedly addressed different goals. Nevertheless, scoping previously recorded ILK, particularly from biodiversity-dependent communities, is essential in those cases where they are of relevance to a given assessment. Indigenous groups and local communities, as well as scientists experienced with ILK-related research, can facilitate the identification of documented sources, some of which may be of limited distribution and difficult to access.

3.2.2. Enhancing current IPBES procedures for assessments

Following the IPCC model, the procedures for incorporating scientific knowledge into IPBES assessments is envisaged as a series of scoping processes and Authors' meetings involving scientific experts who have been designated as Report co-chairs, Coordinating Lead Authors (CLAs), Lead Authors (LAs), Contributing Authors (CAs), Reviewers (Rs) and Review Editors (REs). These meetings would produce a series of draft reports based upon the current scientific knowledge available from the published scientific and gray literature that would go through a series of reviews towards elaboration of a final version of the assessment report.

These IPBES assessment procedures as currently formulated identify some entry points for indigenous and local knowledge and ILK holders. In the *"Draft procedures for the preparation, review, acceptance, adoption, approval and publication of assessment reports and other Platform deliverables",* it is foreseen that ILK holders and/or their representatives could be directly involved in such processes. They may be proposed and selected to participate in the scoping processes, or may be appointed as Authors, LAs, CAs, CLAs, Rs, REs or even co-chairs. Furthermore, some ILK has been partially documented in the scientific and gray literature. Where ILK of relevance to an assessment is included in these secondary source materials, then they may provide a venue for injecting ILK into assessment processes as they are currently conceived. They could also help with the identification of knowledge holders who could be appropriately involved in the scoping and review processes of IPBES outputs.

Despite these potential entry points, opportunities to enhance the work of IPBES by bringing on board indigenous and local knowledge will remain limited if efforts are not made to adapt assessment procedures to the specific needs of ILK. Limiting factors may include, amongst many others:

- Linguistic barriers and conceptual incompatibilities, including differences between indigenous and local (vernacular) taxonomies and scientific taxonomies;

- Valuing of oral communication over written documentation;

- Reluctance of ILK holders to speak outside their own experience, and therefore refusal to speak for or represent others;

- Incompatibility of holistic ILK views compared to more reductionist scientific views;

- Incompatibility of time-depth generational knowledge with short-term scientific 'baseline studies';

- Socio-cultural barriers, including constraints imposed by inappropriate modes of interaction, inappropriate fora, restrictions related to gender or social status, inability of younger ILK holders to speak in front of elders, different interpretations of what constitutes evidence, proof, validation etc.;

- Inadequacy of secondary sources of ILK, as published works record only a minute proportion of existing ILK, may only rarely align with IPBES objectives as they were designed to achieve other goals, and may not capture current observations and understandings of ILK holders.

Requests submitted to the Platform: referencing relevant ILK

With respect to the '*Procedure for Receiving and Prioritizing Requests Put to the Platform',* future Requests to the Platform*,* in addition to encouraging inputs and suggestions from indigenous peoples and local communities, may be formally required to include information on the existence of relevant ILK, its accessibility and possible modalities for its inclusion, and the potential benefits of such requests for ILK holders. To be consistent with the diverse knowledge systems approach, future procedures could request IPBES National Focal Points to develop a national process which includes ILK in the formulation of Requests, including assessments.

A roster of experienced experts in ILK, including indigenous experts and institutions

IPBES will work with UNESCO, FAO, CBC and other agencies to assemble a roster of experts and organizations dealing with the interface of ILK and science, including from indigenous peoples and local communities. These individuals can be proposed to participate in scoping and assessment processes or be considered for positions of Authors, LAs, CAs, CLAs, Rs, REs or co-chairs. They may also provide direct inputs to scenario development or the review of assessment reports and other IPBES deliverables. *The case study work identified as Objective 2(d) in the draft Work Programme can be used to identify this expertise.* The roster would include an identification of thematic expertise and will be available for Fast Track Assessment development as well as regional and sub-regional assessments. Criteria should be developed to aid in the selection of ILK expertise.

Overcoming linguistic and conceptual differences: ethnoscientific methods

Indigenous and local languages are essential vessels for nurturing and transmitting biodiversity knowledge. 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.

Before scientists and indigenous and local knowledge holders can dialogue and exchange together in a mutually intelligible and intelligent manner, they need to be aware of the differences in their naming conventions (nomenclature) for elements of the bio-physical environment, as well as classification systems (taxonomies). Dialogues about biodiversity across knowledge systems may succeed (or fail) depending on the ability to recognize and overcome linguistic barriers. This requires rigorous translation not only of words (with their correct semantic fields) but also of concepts.

Ethnoscientific methodologies have been refined to elucidate naming conventions and classification systems in different knowledge systems, including how to determine in a rigorous manner correspondence with scientific nomenclatures and taxonomies. This first essential procedure can help ensure that scientists and indigenous and local knowledge holders dialogue in a mutually intelligible manner and are not just talking past each other.

Facilitating access to IPBES processes though Dialogue Workshops

The rigidity, formality and institutional requirements of current IPBES processes for scoping, preparing and reviewing assessment reports, technical papers and supporting materials are not conducive to bringing on board ILK. The same limitations apply to procedures across the four functions of IPBES. There is a need to develop special measures in order to allow ILK holders to engage in mainstream IPBES processes and contribute their knowledge and insights. To overcome linguistic, conceptual and socio-cultural barriers, IPBES may consider organizing Dialogue Workshops that are specifically designed to bridge between ILK holders and core IPBES procedures. These workshops, which may involve expert and technical facilitators, would provide a more accessible and productive engagement of ILK holders with scientists and policy-makers, as well as to text preparation and review processes.

Mobilizing broad-scale ILK inputs to IPBES through community-based work sessions

For a broader engagement with ILK holders and expanded application of ILK, IPBES may wish to consider organizing community-based workshops or work sessions that facilitate optimal inputs of relevant ILK from ILK holders. Unlike conventional IPBES workshops and meetings, these work sessions can be adapted to the specific needs of ILK holders by tailoring group size, adjusting composition by gender and/or age, responding to language requirements, fine-tuning the timing and location of the work, and using different techniques for ILK recording. These adaptations are to be decided upon with direct community involvement. Community members and/or experienced professionals may apply tried and tested methodologies such as: cultural, land use or ecological mapping; resource use or harvesting studies; semi-directive interviews on key assessment themes; and/or life histories for time-depth data across generations.

These efforts would contribute importantly towards acknowledging and recording the extensive and rich knowledge about biodiversity and ecosystems services that ILK holders have accumulated during their lifetimes. Passed down by their forefathers, reaffirmed and revised through their own observations and experiences, and enriched through exchange and sharing with others, these individual knowledge sets are the ILK equivalents to the scientific and gray literature. Through well-designed and implemented community-based work sessions, relevant information from these valuable knowledge sets can be mobilized for all stages of IPBES assessment, as well as other IPBES functions.

3.3 Catalysing ILK generation within the IPBES process

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;

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 case study 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.

3.4 Capacity building within the IPBES process

To build capacity and ensure that IPBES outputs reach the policy interface, the first requirement is to involve ILK holders, including formally trained scientist from ILK systems, in all phases of scoping, assessment and resultant policy formulation and capacity building.

Community-based work sessions to bring relevant ILK into IPBES

IPBES may wish to consider organizing community-based workshops or work sessions that are specially designed to facilitate optimal inputs to assessment processes of relevant ILK from ILK holders. Unlike conventional IPBES workshops and meetings, these work sessions can be adapted to the specific needs of ILK holders by tailoring group size, adjusting composition by gender and/or age, responding to language requirements, fine-tuning the timing and location of the work, and using different techniques for ILK recording, all decided upon with direct community involvement. Recording efforts by community members and/or experienced professionals may apply tried and tested methodologies such as: cultural, land use or ecological mapping; resource use or harvesting studies; semi-directive interviews on key assessment themes; and/or life histories for time-depth data across generations.

These efforts would contribute importantly towards acknowledging and recording the extensive and rich knowledge about biodiversity and ecosystems services that ILK holders have accumulated during their lifetimes. Passed down by their forefathers, reaffirmed and revised through their own observations and experiences, and enriched through exchange and sharing with others, these individual knowledge sets are the ILK equivalents to the scientific and gray literature. Through well-designed and implemented community-based work sessions, relevant information from these valuable knowledge sets can be mobilized for inclusion in IPBES assessment processes of scoping, drafting and review.

Importance of education and awareness-raising

There is a great need for education and awareness-raising in this emerging area of work. Capacity-building is required for both ILK-holder and scientists, and in both directions, with scientists receiving training about indigenous and local knowledge, and indigenous peoples being trained about science. The aim is not to convert scientists into indigenous knowledge holders nor ILK holders into scientists, but rather to establish enough common ground to promote mutual understanding and facilitate an informed dialogue. Furthermore awareness-raising is required with all key stakeholders, including decision-makers, management practitioners, protected area managers, the private sector, and the general public.

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 effort should be dedicated to inform indigenous peoples and local communities about IPBES and its processes for involving ILK. IPBES could represent a forum where communities can bring their concerns about potential threats to biodiversity and ecosystems services to the attention of scientists and policy-makers.

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.

3.5 Policy relevance and support for ILK holders

The transdisciplinary domain that crosses boundaries between knowledge systems has been an active area of research and policy action for 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 been addressed through intergovernmental policies and 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

- 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. Since 2000, the *WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore* has been working on the development of an international legal instrument for the protection of traditional knowledge, and conducting formal negotiations since 2009.

Additional relevant intergovernmental policies and processes include work on the genetic diversity of domestic animals and plants, farmers' rights (Food and Agriculture Organization) or 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 recognising indigenous and local knowledge in intergovernmental policy has also occurred 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 Ecosystem 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).

Policy support for ILK systems at national and regional levels has received less attention in the field of biodiversity and ecosystems services. It is proposed that IPBES could play a facilitation role in facilitating specific policies at the regional and sub-regional, as well as, international scales. These policies may include, but not limited to, the following:

- Identification and acquisition of ILK (creating, capturing and storage);

- Communicating and dissemination of the knowledge (using various platforms, videos, tapes, and storytelling);

- Validation of the knowledge through various platforms;
- Development of policy-relevant tools.

Engagement with other UN policy processes

It is not infrequent that national or federal laws conflict with the local or territorial rules of informal institutions of indigenous and local communities. These conflicts may stem from fundamental differences in social organization and cultural values between governmental and community institutions. It is proposed that IPBES outcomes and capacity building will assist institutions (governmental and community, formal and informal) to identify mutual interests and find common ground. In some cases, the governance arrangements of indigenous and local knowledge holders cross national boundaries and can play an important role in ecosystem governance, conservation and sustainable use of biodiversity (e.g. Mayan, Quechuan, Inuit, Sami). Regional or National Focal Points therefore could be developed to facilitate a national process for including indigenous and local community perspectives in the IPBES assessments and the science-policy interface. Any project or assessment could be considered as an 'intervention' and may create tensions in the local political environment. IPBES and governments therefore need a long term strategy to engage IPLC's and develop confidence, trust, credibility and respect. An important concept to capture in any new policy is the concept of 'reciprocity' with IPLC's.

Working with ILK systems in the science-policy interface

Indigenous and local communities and their social institutions offer a strategic foundation for implementing a "bottom up strategy" which would enhance the IPBES science-policy interface.

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.

4.0. INTEGRATING ILK ACROSS ALL IPBES FUNCTIONS

Dialogue workshops among ILK holders, scientists and decision-makers

To facilitate the direct engagement of relevant ILK holders in the mainstream processes of scoping, preparation and review of IPBES assessment reports, technical papers and supporting materials, IPBES may consider organizing dialogue workshops that are specifically designed to facilitate inputs from ILK holders. These workshops would provide the necessary conditions for a meaningful and productive dialogue among ILK holders, scientists and policy-makers, and may involve expert and technical facilitators as required. They may serve as the necessary bridge to bring information and insights from indigenous peoples and local communities directly into core IPBES processes.

ANNEX 1: Preliminary steps for synergizing indigenous and local knowledge (ILK) systems with science

The following are the basic procedures that could be followed to achieve the objective of building synergies between ILK and sciences as a basis for achieving the outputs or products in the context of specific projects of the IPBES work programme. These are based on the following premises:

1) ILK holders, because of their long relationships with their natural and cultural biodiversity and ecosystem services, have extensive and in-depth, often collective, knowledge of these systems at spatial and temporal scales that differ and complement those of scientists;

2) That ILK and ILK holders should, where appropriate, be involved in all stages in scoping, assessments, review, developing policy and capacity building activities of a specific project of the WP of IPBES.

Basic steps for synergizing ILK and science in the context of a given IPBES project under the work programme are as follows:

1. Identify relevant ILK required to achieve the objectives of a specific project, including through building synergies with science.
2. Carry out preliminary mapping to identify relevant ILK holders, specific communities or sources of relevant ILK, including groups of ILK experts, practitioners, and trained scientists from ILK communities that should be involved in the project.
3. Develop robust relationships and trust with these communities, experts and scientists and follow appropriate and mutually agreed upon protocols to access this information and ensure shared benefits.
4. Gather and interpret, through mutually agreed upon collaborative research protocols involving ILK holders and community members, the information that is pertinent for specific project deliverables.
5. Where needed, bring together ILK and scientific knowledge to achieve the integrated assessments, policy outputs and capacity building objectives of the project (this can be done in most phases of the process).
6. Review the outputs, ensuring that appropriate and mutually agreed upon methodologies are employed that recognize the distinctive features of ILK and ILK holders (e.g. oral, communal or local language traditions), which may require additional new review mechanisms (e.g. through ILK engagement groups or other means).

ANNEX 2: Preliminary principles for working with ILK in the IPBES process

Beyond recognition and respect for indigenous and local knowledge, IPBES' stated objectives are to build strong synergies between indigenous and local knowledge and science, and to engage with indigenous and local knowledge holders, as core priorities of the IPBES programme of work. Several decades of interaction with ILK holders have made clear some of the necessary pre-conditions for the success of such engagements. The function of principles should be to draw attention to activities that raise issues or potentially threaten cultural health and/or community well-being, and point the way towards internationally acceptable solutions. Such activities may include pursuits that impinge upon human communities, their land and resources, their livelihoods, ways-of-life, spirituality, intellectual property, governance or stewardship, amongst other matters. When proposed activities raise cultural and social issues or threats, precautionary measures should be taken.

1. Recognizing different knowledge holders

To appropriately frame its overall action with respect to ILK, IPBES should clearly recognize indigenous peoples and local community members, along with scientists, as knowledge holders of central relevance to the goals of IPBES. ILK should be recognized as a group distinct from other "stakeholders" defined by the Stakeholder Engagement Strategy.

2. Establishing mutual trust and respect

Successful engagement among indigenous peoples and local communities requires mutual trust and respect so as to come to a point of acceptance and understanding of each other's observations, interpretations, values, worldviews and priorities.

3. Recognizing and respecting intellectual property (IP)

Successful engagement of indigenous peoples and local communities knowledge requires Free, Prior and Informed Consent (FPIC), as described in the UN Declaration on the Rights of Indigenous Peoples and other ongoing initiatives and processes. Synergies between indigenous and local knowledge holders and scientists must be based on mutual consent, and a clear understanding of the objectives, reasons for and possible benefits of IPBES engagement with ILK systems. Furthermore, indigenous intellectual property rights relating to knowledge of interest to IPBES need to be recognized and assured.

4. Involving ILK in all assessment phases

It is important that all relevant knowledge holders are involved early (from conception stage), equitably (ensuring equal access to information and decision-making), and consistently (throughout the entire process to assessment outputs).

5. Benefit-sharing

The requirement to share knowledge and return benefits from the IPBES assessment process to ILK-holders and communities must be recognised. Indigenous and local knowledge holders must be identified and clearly acknowledged as co-authors, which achieves the dual goal of insuring both recognition and ownership of the outputs, as well as providing a basis for their involvement in policy-making to address biodiversity issue.

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