Draft

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Methodological guidance for recognizing and working with indigenous and local knowledge in IPBES

Development of the draft methodological guidance

This draft of the methodological guidance for recognizing and working with indigenous and local knowledge (ILK) in IPBES is based on work on ILK methods that has taken place since the inception of IPBES. Much of this work has been led by the task force on ILK, with support from representatives and networks of indigenous peoples and local communities (IPLC) and other strategic partners. Previous IPBES assessments, including the four regional assessments of biodiversity and ecosystem services, the assessment of land degradation and restoration and the pollination assessment, have all helped to advance the ways that ILK is understood and approached within IPBES. This evolution of methods and approaches led to the adoption of the IPBES approach to recognizing and working with indigenous and local knowledge as set out in annex II to decision IPBES-5/1. The approach was most recently employed in the global assessment, and much of the contents of this methodological guidance are adapted from documents produced to guide or discuss the global assessment of biodiversity and ecosystem services:

- Operationalizing 'Indigenous and Local Knowledge and Practices' (ILK) and the role of Indigenous People and Local Communities (IPLC) in the IPBES Global Assessment (GA). Prepared by Eduardo S. Brondizio and revised 2 May 2017.
- The report of a meeting on indigenous and local knowledge in the IPBES global assessment on biodiversity and ecosystem services, held 31 March - 2 April 2017 in Budapest.
- Pamela McElwee, Hien Ngo, Álvaro Fernández-Llamazares, Victoria Reyes-García, Zsolt Molnár, Maximilien Gueze, Eduardo Brondizio and Sandra Díaz. In press. *Including Indigenous and Local Knowledge in the Work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES): Outcomes and Lessons for the Future*. A contribution to The Routledge Handbook of Indigenous Environmental Knowledge.

The indigenous peoples' consultation on the IPBES participatory mechanism, which took place in Paris, France 24 – 25 September 2018, was also invaluable in further shaping the methodological guidance.

Acronyms

CA	Contributing author
CBD	Convention on Biological Diversity
CLA	Coordinating lead author
FOD	First order draft
FPIC	Free prior and informed consent
GA	Global Assessment of Biodiversity and Ecosystem Services
ILK	Indigenous and local knowledge
IPBES	Intergovernmental science-policy Platform on Biodiversity and Ecosystem Services
IPLC	Indigenous peoples and local communities
MEP	Multidisciplinary Expert Panel
NCP	Nature's contributions to people
SOD	Second order draft
SPM	Summary for policymakers
TSU	Technical support unit
UN	United Nations

Contents

1 Introduction

1.1 Background and aims

This methodological guidance for recognizing and working with indigenous and local knowledge (ILK) in IPBES is intended as a resource for co-chairs, authors and technical support units (TSUs) working on IPBES assessments. It is also intended as a resource for indigenous peoples and local communities (IPLC) wanting to understand how they can participate in IPBES assessment processes. The guidance also contributes to IPBES' other three functions (knowledge and data, policy support tools and methodologies, capacity-building), as discussed below.

The guidance was developed to support the implementation of the IPBES approach to recognizing and working with indigenous and local knowledge (hereafter "the approach to ILK"), as set out in annex II to decision IPBES-5/1. Efforts have been made by co-chairs, authors, TSUs and IPLCs partners to operationalise the approach as part of the preparation of IPBES assessments. The methodological guidance represents a work in progress, and will evolve as new IPBES assessments and other activities further develop methods for engaging with ILK and IPLC.

The broad objectives of this methodological guidance include:

- Developing practical and appropriate methods to incorporate ILK and issues concerning IPLCs into IPBES assessments that would "add value" to the research-based synthesis work carried out by authors of the assessment. In this way, the key findings of an assessment can be relevant to a wider suite of end users and decision makers;

- Piloting new approaches to enable active and meaningful participation of IPLCs at all stages of the assessment cycle, and setting up channels in which to build long-term relationships with IPLCs in the preparation of future IPBES assessments;

- Increasing the inclusiveness (process and content) of assessments by bringing in perspectives from representatives of IPLCs especially those already involved with IPBES and other networks and organizations; and

- To enhance work on ILK and participation of IPLCs in the other three functions of IPBES (knowledge and data, policy support tools and methodologies, capacity-building), as outlined in the approach to ILK.

1.2 Contributions to the functions of IPBES

While this draft of the methodological guidance is structured around IPBES assessments, it contributes significantly to the other three functions of IPBES: knowledge and data, policy support tools and methodologies, and capacity-building. In some cases, the methodological guidance itself represents a partial fulfilment of objectives of the approach in relation to the other three functions, in other cases the guide proposes methods and activities that support the objectives, for example through the development of databases of literature, experts and organisations.

It is anticipated that future versions of the methodological guidance will further develop work on the other three functions of IPBES, and will further develop strategies and activities in this regard.

1.2.1 Knowledge and data

The methodological guidance contributes to the main aims of the IPBES approach to ILK in relation to knowledge and data (paragraph 18 of the approach to ILK):

- *Identify a set of practices to help manage evidence and data that will be collected in the assessments;*
- *Facilitate the accessing and management of available sources of indigenous and local knowledge;*
- *Promote and catalyse the mobilization of indigenous and local knowledge, as appropriate, focusing on gaps that emerge during each phase of an assessment; and*
- *Take into account appropriately those aspects relevant to indigenous and local knowledge and indigenous peoples and local communities in the list of indicators, classifications of units of analysis and classification of nature's contributions to people.*

1.2.2 Policy support tools and methodologies

The methodological guidance contributes to the main aims of the IPBES approach to ILK in relation to policy support tools and methodologies (paragraph 19 of the approach to ILK):

- *Identify, describe and facilitate the use of relevant tools and methods for implementing the four phases of the proposed approach; and*
- *Ensure that policy responses, decision-making instruments and processes relevant to indigenous and local knowledge and indigenous peoples and local communities are reflected in IPBES assessments.*

1.2.3 Capacity-building

The methodological guidance contributes to the main aims of the IPBES approach to ILK in relation to capacity-building (paragraph 20 of the approach to ILK):

- *Identify, prioritize and build capacity critical to its implementation, within the means available, through, for example, training workshops and webinars on the approaches to and procedures for recognizing and working with indigenous and local knowledge in assessments or participation in the fellowship programme; and*
- *Promote and catalyse the undertaking of capacity-building activities in support of broader capacity-building needs; strengthen the ability of indigenous peoples and local communities to take part in, contribute to and benefit from IPBES deliverables.*

1.3 The IPBES Participatory Mechanism

1.3.1 Background

The participatory mechanism is integral to the IPBES approach to ILK as outlined in annex II to decision IPBES-5/1. Its objective is to facilitate the effective and meaningful engagement of ILK holders, ILK experts and IPLC organizations or networks in order to strengthen their ability to contribute to and benefit from IPBES. The participatory mechanism is conceived as a series of activities for IPLC participation throughout the IPBES assessment cycle and the streams of work related to the other three functions of IPBES, supported by a web-based platform that is currently in development.

This direct engagement with ILK holders, ILK experts and networks and organization of IPLCs provides a crucial source of knowledge and information for IPBES assessments. Direct engagement also allows IPLCs better control over the type of knowledge that is included in assessments, following principles

of Free, Prior and Informed Consent (see below), and gives them a voice in how ILK and IPLCs are represented and discussed within an assessment.

1.4 Structure of the methodological guidance

The guide is structured around the 4 stages of the IPBES assessment cycle, as laid out in the IPBES guide to assessments:

- **Stage 1:** Request and scope
- **Stage 2:** Expert evaluation
- **Stage 3:** Approval and acceptance of the final assessment report (not discussed in this guide as this is done by the Plenary).
- **Stage 4:** Use of the assessment findings

The guide also follows the four phases of recognizing and working with indigenous and local knowledge in an IPBES assessment as set out in the approach to ILK. They are:

- **Phase 1:** The collaborative definition of problems and goals
- **Phase 2:** Synthesizing and incorporating a wide array of evidence and data from multiple sources of indigenous and local knowledge
- **Phase 3:** Appropriately engaging indigenous peoples and local communities in the review of the various drafts of a specific assessment
- **Phase 4:** Sharing knowledge and insights gained through an assessment with indigenous peoples and local communities once the assessment is concluded

2 Terminology and concepts

Paragraph 6 (c) of the approach states that:

> *(c) The approach does not intend to create or develop new definitions of what constitutes "indigenous and local knowledge" or "indigenous peoples and local communities", as these definitions are often context specific and vary within and across regions;*

However, IPBES authors have asked for support in conceptualising some of the terms that are commonly used in IPBES in relation to ILK. The following discussions on terminology and concepts are intended to provide this support to IPBES authors. The discussions below do not intend to create or develop new definitions of what constitutes "indigenous and local knowledge" or "indigenous peoples and local communities". They also do not constitute any opinion on the part of IPBES regarding the status of the different communities discussed, which are solely provided as illustrative examples.

2.1 Indigenous and local knowledge - ILK

In para. 6. of the IPBES approach to recognizing and working with indigenous and local knowledge, it is stated that the approach is based on the following understandings of key terms, concepts and categories:

> *(a) Indigenous and local knowledge systems are in general understood to be dynamic bodies of integrated, holistic, social and ecological knowledge, practices and beliefs pertaining to the relationship of living beings, including people, with one another and with their environments. Indigenous and local knowledge is grounded in territory, is highly diverse and is continuously evolving through the interaction of experiences, innovations and various types of knowledge (written, oral, visual, tacit, gendered, practical and scientific). Such knowledge can provide information, methods, theory and practice for sustainable ecosystem management. Many Indigenous and local knowledge systems are empirically tested, applied, contested and validated through different means in different contexts;*
>
> *(b) Maintained and produced in individual and collective ways, indigenous and local knowledge is at the interface between biological and cultural diversity. Manifestations of indigenous and local knowledge are evident in many social and ecological systems. In this context, the approach understands "biocultural diversity" as biological and cultural diversity and the links between them;*

Similar terms include traditional ecological knowledge (TEK) and local ecological knowledge (LEK), among several others.

The task force on ILK, at its annual meeting on 11 July 2020, agreed to provide the following additional considerations on ILK:

- Indigenous and local knowledge systems are underpinned by shared worldviews, daily practices, social relations, and beliefs that are in turn embedded in formal and informal indigenous and local governance, religious, and educational institutions. Together, these tend to ensure that ILK is passed onto future generations through cultural transmission (experiential learning, oral, artistic, expressive, written, etc.).

- ILK is culturally differentiated not only because it is grounded in ancestry and territory, but also since it reflects intra and inter-cultural differences within indigenous and local communities based on phenomena such as specialisation, kinship, gender, and age.

- Indigenous and local knowledge is context-specific and, therefore, highly diverse. It is dynamic, as it continuously evolves through the interaction between experiences, innovations, languages, and non-local knowledge (e.g. through social networks, the media, formal education, and interactions with technical and scientific knowledge holders).

- Additionally, it is important to recognize that much of this knowledge is grounded in the people who are keeping, creating and transmitting it and that much of ILK derives its strengths and vitality from local contexts. When using this knowledge in global-scale assessments attention must therefore be paid to contextualising this knowledge as much as possible.

2.2 Knowledge and practices

For the purpose of IPBES assessments, while maintaining the terminology used in the IPBES approach to indigenous and local knowledge, it may be useful to add an emphasis on "practices". The term "practices" is intended to highlight the direct contributions of indigenous peoples and local communities to the stewardship, monitoring, sustained use, management, governance and protection of nature, species, ecosystems and/or landscapes.

Practices could include, for example, how wild honey is collected, which may require bee tracking skills and species and ecosystems knowledge, as well as spiritual connections to the land, plants and insects. Another example is practices involved in rotational forest agriculture, which may require a wide range of knowledge including of crop diversity, wild biodiversity, forest regeneration rates, soils and climate, as well as associated rituals, social relations, and governance. In such a system, there may be an array of types of knowledge or knowledge domains, which may be distributed between genders, age, kinship groups, or specializations within a given community, making it difficult to gain a detailed understanding of the entire knowledge system. Much of this knowledge may also be undocumented, or non-verbal (tacit), and may therefore be difficult for assessment authors to recognize, access, or understand, although efforts should be made throughout the assessment process to do this.

The practices that are tied to these knowledge systems may, however, be more clearly visible, and their relationship to biodiversity more clearly apparent. A focus on both knowledge and practices may therefore provide authors with different avenues through which to approach complex tacit or undocumented knowledge systems. At the same time, as much as possible, the knowledge and practices that inform an assessment should be recognized as being part of a broader worldview and dynamic way of life from which they should not be separated.

2.3 Indigenous peoples and local communities

2.3.1 Overview

Indigenous peoples and local communities (referred to by the acronym "IPLCs" in IPBES assessments) is a term used internationally by representatives, organizations, and conventions[1] to refer to individuals and communities who either self-identify as indigenous or as members of distinct local

[1] See, for example, the decision by the Conference of the Parties to use the term, following a recommendation by the UN Permanent Forum on Indigenous Issues to the Convention on Biological Diversity available at: https://www.cbd.int/doc/decisions/cop-12/cop-12-dec-12-en.pdf.

communities, and that maintain an inter-generational historical connection to place and nature through livelihoods, cultural identity, languages, worldviews, institutions, and ecological knowledge.

IPLCs is an umbrella term used to represent the most culturally diverse segment of the world's population. Over the past two decades, the term, and other similar regional terms, have gained usage in international fora and in judicial procedures. The term is not intended to ignore differences and diversity within and among indigenous peoples and between them and local communities. It is used largely to denote that there are commonalities and shared concerns of indigenous peoples and local communities that are important to represent in international fora and policies such as the CBD, IPCC and IPBES, among many others.

However, the global diversity of IPLCs – cultural and historical, social and political, economic and environmental – makes it difficult to find a definition for the term as a whole and for each of its two components, "Indigenous peoples" and "local communities".

Some indigenous peoples contest the use of "local" and "indigenous" within the same conceptualization, as they fear that this could undermine attention to the specificities of indigenous knowledge, languages, practices and rights. Some of this concern may also hinge on the scope of the understanding of "local communities", as discussed below.

The adoption of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) in 2007 has provided the United Nations with a specific framework on engaging with indigenous peoples, separate from local communities. The UNDRIP acknowledges in its preamble that the Charter of the United Nations, the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights, as well as the Vienna Declaration and Programme of Action, affirm the fundamental importance of the right to self-determination of all peoples, by virtue of which they freely determine their political status and freely pursue their economic, social and cultural development. The UNDRIP demonstrates how this right can be met in the specific contexts of indigenous peoples.

The UNDROP, adopted by United Nations General Assembly in 2018, addresses indigenous peoples and local communities more broadly, and applies to "indigenous peoples and local communities working on the land, transhumant, nomadic and semi-nomadic communities, and the landless engaged in the above-mentioned activities", as well as to "any person engaged in artisanal or small-scale agriculture, crop planting, livestock raising, pastoralism, fishing, forestry, hunting or gathering, and handicrafts related to agriculture or a related occupation in a rural area", among other groups.

For these reasons it is recommended that IPBES authors pay careful attention to when their discussion and analysis focusses only on indigenous peoples, only on local communities, or on both groups together, keeping in mind the recommended conceptualisations below. Only in the latter case, where they are discussing both groups together, is it recommended that authors use the terms 'IPLCs' or 'ILK'. This can be particularly important when analysing or discussing issues related to rights, in part due to the specific framework for indigenous peoples offered by the UNDRIP.[2]

2.3.2 Indigenous peoples and indigenous knowledge

As noted in chapter 1 of the IPBES global assessment, while the United Nations has recognized and used multiple criteria to define 'Indigenous Peoples', including ancestry, distinct cultural features such as language, religion, membership in tribal systems, material culture, cosmology, livelihood,

[2] For one such opinion on this issue, see the Inuit Circumpolar Council's 2020 policy paper on the matter of local communities. This is provided for reference and is not intended as an endorsement by IPBES of the points therein. https://www.inuitcircumpolar.com/project/policy-paper-on-the-matter-of-local-communities/

origin and residence, among others, no common definition has been adopted internationally. Instead, the United Nations, as many countries, have increasingly adopted self-identification, by individuals and their acceptance by a community, as a primary criterion.[3]

In the absence of a general definition of indigenous peoples, authors of IPBES assessments should be attentive to recognizing intra- and inter-regional differences in definitions of indigenous peoples. It should be noted that, while some groups are formally recognized as "indigenous" by their respective states and/or societies, others do not receive this recognition, which may also impact how they are described in the literature. Also, for historical, political, and linguistic reasons, some groups are more visible than others to policymakers, scholars, society, and other representatives of indigenous peoples. For these and other reasons, IPBES authors should be sensitive to the fact that definitions of indigenous peoples and, therefore, indigenous knowledge, are context-specific. This should be kept in mind when evaluating data and literature, thus aiming for inclusivity and diversity, while avoiding over-generalizations about indigenous peoples and indigenous knowledge. In practical terms, this could mean disaggregating literature review data in a way that allows for different analyses of the information based on who is included as indigenous in different contexts, regions and countries.

Overall, the criterion of self-identification for indigenous peoples could guide assessment authors. It should also be remembered, however, that some groups may not be aware of these concepts and how they apply to their communities, so they may not be in a position to self-identify as "indigenous". Nonetheless, in many of these cases a local concept or form of self-identification may be present, and as such the principle of self-identification is open-ended and non-exclusive.

Many indigenous peoples have close relationships with their lands, waters, and biodiversity, and are bearers of knowledge of the environment passed down through generations. However, some indigenous populations may have been dislocated from their lands or communities of origin, or may have varying degrees of connection to lands, waters and natural resources due to cultural or environmental change. Therefore, while indigenous knowledge is dynamic and can evolve and adapt to new locations and cultural contexts, the recognition of an individual or group as indigenous is not necessarily synonymous with the group or individual holding indigenous knowledge about the environment.

2.3.3 Local communities and local knowledge

IPBES emphasizes the inclusion of local communities and their connections to and relationships with biodiversity in its assessments. While there has been a great deal of work within the United Nations system on recognizing indigenous peoples and formalizing their rights and participation, this has been more limited for local communities and their respective knowledge systems. This can lead to uncertainty as to who should be included in the "local community" category and what should be defined as "local knowledge". There are, broadly, two conceptions of "local communities", which are described and discussed below.

It should be noted however that in terms of who would be considered 'local', all communities lie on a gradient, and as such there is no clear boundary between communities that would be categorized as 'local' and communities that would not. The discussions of conceptualisations below therefore aim to provide some clarity around a very fuzzy reality. Some groups of local communities may also have specific contexts in terms of legal recognition and rights.

[3] IPBES (2019) Chapter 1 of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany.

2.3.3.1 The conception of local communities suggested for IPBES assessments

Local communities can be understood as non-indigenous communities which, while highly diverse, are recognized for having historical linkages to places and natural resources, multiple domains of ecological knowledge, dynamic and hybrid resource management techniques and technologies, customary and formal institutions to manage natural resources, and distinctive worldviews and relationships to nature. The IPBES task force on ILK recommends that this conception is used within IPBES. The CBD, IPCC, and others also use this conception.

In this conception, many local communities may effectively have the same characteristics as many indigenous peoples living in rural areas. Indeed, in some cases, groups that self-identify as "indigenous" may be referred to in some sources as "local communities" or by other similar designations, because their self-identification as "indigenous" is not formally recognized by their governments. The knowledge of these communities is formed through livelihoods characterized by long-term relationships with the natural environment, often over generations, and may be associated with complex resource governance systems. Examples include artisanal farming, forest extraction or fishing communities. In other cases that are included in this conception, local communities may have a shorter history in a particular landscape but may still have a deep connection to lands, waters, and biodiversity through their resource-based livelihoods and cultural practices. Because of their livelihoods' strategies, characterized by a close connection with biodiversity and natural resources, they also often have different perceptions of the relationships between nature, spirituality and humans compared with the "majority" cultures in their countries or regions. An example would be some Afro-descendant communities in Latin America. The knowledge systems of these communities can be thought of as sufficiently distinctive to belong to a broad and diverse category of "local knowledge systems". Some of these communities are also formally recognized by national governments and they may have, or may be pursuing, distinct formal rights over land and natural resources.

Examples of local communities within the suggested IPBES conception

Latin America

In Brazil, indigenous peoples have their own legal framework, while local communities, designated as "traditional communities" (comunidades tradicionais) have specific legal privileges but these are not comparable to those of indigenous peoples. One example of specific local communities that pursue differentiated legal rights are Afro-descendent Brazilian communities that live in rural areas and have their livelihoods intimately connected to land and biodiversity. They are designated "Quilombolas" and have been granted rights to their lands and cultural traditions in national policies.

In Latin America in general, it is important to consider the distinctiveness of Afro-descendant communities. These include a diversity of groups of African descent who self-identify as such. According to the *Booklet on the International Decade for People of African Descent* (UNDPI & UNOHCHR 2015)[4]:

People of African descent comprise a heterogeneous group with diverse histories, experiences and identities. The circumstances in which they live and the problems they face differ from country to country and region to region. There are around 200 million people of African descent living in the Americas and many millions more in the other continents. Whether as descendants of the victims of

[4] *Booklet on the International Decade for People of African Descent* (UNDPI & UNOHCHR 2015), p. 5 https://www.un.org/sites/un2.un.org/files/african_descent_booklet_web_english.pdf

the transatlantic slave trade and slavery or as migrants, they face a series of general and global cross-cutting issues […].

For example, in Suriname, there is a distinction between indigenous peoples and maroons (descendants of Africans in the Americas) under a common grouping as indigenous and tribal peoples. Maroons have often maintained distinctive identities based on their African origins. There is a draft law recognising these groups, including land rights and traditional authorities.

In some cases, Afro-descendants mixed with indigenous peoples, evolving into separate creole cultures, such as the Garifuna in Central America or Mascogos in Mexico.

Europe

In Eastern and (East-)Central Europe, there are traditional herders and traditional farmers whose practices use minimal machinery and chemicals, and are based dominantly on multi-generational traditional knowledge. While they are not awarded a specific status, some of them may receive subsidies from national and European Union sources for continuing their traditional management practices that are beneficial for biodiversity.

Sinjajenivan herders in Montenegro are mobile pastoralists and small-scale farmers. They have governed, protected and cared for their grasslands for hundreds, if not thousands, of years. Organized commonly, they are responsible for the conservation of a landscape whose special value and unique biodiversity has been recognized through UNESCO Biosphere reserve status. The present ecosystem is the result of a sustained and traditionally governed pastoralism without which much of this biodiversity would disappear.

Summer pasture farming in Norway has been – and is – an integrated element of Norwegian agriculture, that is, first and foremost with regard to production of milk from cows and goats. Summer farming was regulated in the laws that were laid down in the 12th century. In the summer of 2014 there were approximately 1000 independent summer farms in use. In addition, approximately 800 farms herded their cows or goats to shared summer farms.

Africa

The Dogon people of eastern Mali do not claim to be indigenous people, yet they are considered distinctive by the government and other ethnic groups. They are traditional dryland horticulturalists with a strong adherence to traditional culture, including their renowned mud agglomerations, the caves of Bandiagara and their famous wood carving which dates back centuries. They have a distinctive religion and practices, having not permitted proselytisation.

The Giriama people are part of the larger Mijikenda group of languages on the Kenya coast. They have bridged between their traditional practices which include sailing, fishing and diving, sustainable exploitation of mangrove forests, and increasingly they are involved in tourism. They speak Bantu languages, and hence they are generally not considered “indigenous”, but they have distinctive knowledge systems, including sustaining sacred forests which are inscribed as World Heritage by UNESCO.

The Damara people of Namibia, do not identify as indigenous, and yet they are traditionally hunter-gatherers and that tradition has been sustained to some degree. They speak a click language, a variety of Khoekhoegowab which is a widespread language in Namibia and spoken by ethnic groups that claim an indigenous identity. They practice dryland agriculture and livestock herding. They are considered to have specific historical roots, perhaps of different origin from both the indigenous Khoe-San and the Bantu speaking majority, possibly from a history of a rare migration down the west

coast of Africa. They maintain a high reliance on natural resources and complex uses of the arid and semi-arid landscapes.

2.3.3.2 The broader conception of local communities and practitioners

The second conception of "local communities" and "local knowledge" is much broader and generally not recommended for use in IPBES assessments. This is the conception of "local communities" as including any community with a relationship with a specific territory or place. "Local knowledge" would, in this conception, be held by anyone with practical, specialized or local knowledge of nature that is not, by definition, "science". This could, for example, include knowledge generated by industrial-scale forestry, farming, and fishing operations, or NGOs engaged in conservation or restoration activities, as well as non-scientists who have a keen interest in some aspects of nature, such as bird-watchers, wild mushroom collectors, scuba divers, sports hunters, sports fishers, and mountaineers. These groups may have regular interaction with a species, landscape, or seascape, and may therefore have deep knowledge regarding trends and drivers of biodiversity change. This is increasingly captured through georeferenced data, whether through citizen science, application-based documentation, or community efforts to protect certain endangered species or ecosystems.

While hard distinctions are difficult to make, the knowledge of these individuals or groups can be differentiated from the suggested IPBES conception of ILK, as their knowledge is often not holistic, it usually does not relate to entire social-ecological systems, and it is not the product of generations of cultural transmission, experimentation, and practical learning. It is more often limited to specific aspects of nature related to the specific activities that the communities in question pursue, and its main conceptualisations of nature may be underpinned by external knowledge (e.g. science, media, formal education systems).

These individuals or groups could instead be referred to as "practitioners", and their knowledge could be referred to as "practitioners' knowledge". This would fit in with a broad conception of practitioners as people who are applying knowledge and/or gaining knowledge through experience.

Including the knowledge of these practitioner groups can be beneficial for IPBES assessments. The sustainable and equitable governance of specific social-ecological systems generally requires involvement of all people and communities that are interacting with the resources, landscapes and biodiversity in question, and engagement is needed with their knowledge, perceptions, values, and interests. The criteria that could be considered for inclusion in IPBES assessments is whether such individuals or groups have knowledge, practices, social relations, or forms of governance that are relevant to IPBES assessments and associated areas of work, with the aim of accessing the best available knowledge. The consideration of the knowledge of different practitioners may need to occur on a case-by-case basis, to determine how it can best be considered and described. Recognizing a group as "practitioners" rather than as "indigenous" or "local" is not intended to suggest that their knowledge is more or less important to be included in IPBES.

The IPBES approach and this methodological guidance are aimed at the narrower conceptualisation of "local communities" and "local knowledge" as described above, and other approaches and methodologies may need to be developed to engage with other practitioners.

2.3.4 Local community organisations and networks

A number of examples for organisations and networks in line with the suggested IPBES conception of local communities, include:

Name of local community organisation or network	**Region/country**
International Collective in Support of Fishworkers	Global
Low Impact Fishers Association	Global

La Via Campesina	Global
Rangeland Initiative of the International Land Coalition	Global
Asociacion de Comunidades Forestales de Peten (ACOFOP)	Guatemala
Federation of Community Forestry Users in Nepal (FECOFUN)	Nepal
MOCASE peasant movement of Santiago del Estero	Argentina
Asociacion Nacional de Zonas de Reserva Campesina, ANZORC" http://anzorc.com/ One of the most important associations of local communities (peasants) in Colombia	Colombia
Peasant movement of Córdoba	
Coordenação Nacional de Articulação das Comunidades Negras Rurais Quilombolas – CONAQ	Brazil
Conselho Nacional dos Seringueiros	Brazil
Movimento Interestadual das Quebradeiras de Coco Babaçu	Brazil
African Biodiversity Network	East Africa (working with traditional communities)
The Centre for Sustainable Development and Environment (CENESTA)	Iran and surrounding countries

This list will be added to during the course of assessments and other IPBES activities.

2.3.5 Resources

Much of the above text on terminologies and concepts is adapted from Chapter 1 of the IPBES Global Assessment. Chapter 1 of the Global Assessment is an important resource for IPBES authors seeking to conceptualise ILK and IPLC.

Other useful resources include:

A useful discussion of the development of meanings of "indigenous" and "local" is also contained in: Sajeva G., G. Borrini-Feyerabend and T. Niederberger, 2019. *Meanings and more… Policy Brief of the ICCA Consortium no. 7.* ICCA Consortium in collaboration with Cenesta. https://www.iccaconsortium.org/wp-content/uploads/2019/11/ICCA-Briefing-Note-7-Final-for-websites.pdf

CBD. 2011. Identification of Common Characteristics of Local Communities, in meeting documents for the Ad hoc Expert Group Meeting of Local-community Representatives, 14 - 16 July 2011 - Montreal, Canada UNEP/CBD/AHEG/LCR/INF/1 https://www.cbd.int/doc/meetings/tk/aheg-lcr-01/information/aheg-lcr-01-inf-01-en.pdf

CBD. 2011. Guidance for the Discussions Concerning Local Communities within the Context of the Convention on Biological Diversity, in meeting document for the Ad hoc Expert Group Meeting of Local-community Representatives, 14 - 16 July 2011 - Montreal, Canada UNEP/CBD/AHEG/LCR/2 https://www.cbd.int/doc/meetings/tk/aheg-lcr-01/official/aheg-lcr-01-02-en.pdf

UNDPI & UNOHCHR. 2015. *Booklet on the International Decade for People of African Descent*. https://www.un.org/sites/un2.un.org/files/african_descent_booklet_web_english.pdf

2.4 Definitions of ILK holders, ILK experts, experts on ILK

In the IPBES approach to ILK, paragraph 6 (d) gives three categories of expertise related to ILK:

1) *"Indigenous and local knowledge holders" are understood to be persons situated in the collective knowledge systems of indigenous peoples and local communities with knowledge from their own indigenous peoples and local communities;*

2) *"indigenous and local knowledge experts" are understood to be persons from indigenous peoples and local communities who have knowledge about indigenous and local knowledge and associated issues (they may also be indigenous and local knowledge holders); and*

3) *"experts on indigenous and local knowledge" are understood to be persons who have knowledge about indigenous and local knowledge and associated issues, not necessarily from indigenous peoples and local communities.*

These definitions are used throughout this methodological guidance as they form a useful framework by which to discuss participation of IPLCs and inclusion of ILK in IPBES activities.

3 Working with FPIC

3.1 Background

Free prior and informed consent (FPIC) is a specific right that pertains to indigenous peoples and is recognised in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). It allows indigenous peoples to give or withhold consent to a project that may affect them or their territories. Once they have given their consent, they can withdraw it at any stage. Furthermore, FPIC enables them to negotiate the conditions under which the project will be designed, implemented, monitored and evaluated.

Within the framework of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), principles of FPIC also apply to research or knowledge-related interactions between indigenous peoples and outsiders (including researchers, scientists, journalists, etc.). Given that IPBES processes include discussion of indigenous knowledge of biodiversity and ecosystems, there may be information which the knowledge holders or their organizations or respective communities consider sensitive, private, or as holding value for themselves which they do not want to share in the public domain through publications or other media without formal consent.

The Conference of the Parties to the Convention on Biological Diversity (CBD) adopted, in decision 16/18, voluntary guidelines for the development of mechanisms, legislation or other appropriate initiatives to ensure the free, prior and informed consent of indigenous peoples and local communities for accessing their knowledge, innovations and practices, which contain the following interpretation of FPIC:

Free implies that indigenous peoples and local communities are not pressured, intimidated, manipulated or unduly influenced and that their consent is given, without coercion.

Prior implies seeking consent or approval sufficiently in advance of any authorization to access traditional knowledge[5] (indigenous and local knowledge) respecting the customary decision-making processes in accordance with national legislation and time requirements of IPLC.

Informed implies that information is provided that covers relevant aspects, such as: the intended purpose of the access; its duration and scope; a preliminary assessment of the likely economic, social, cultural and environmental impacts, including potential risks; personnel likely to be involved in the execution of the access; procedures the access may entail and benefit-sharing arrangements.

Consent or approval is the agreement of the IPLCs who are holders of traditional knowledge (indigenous and local knowledge) or the competent authorities of those indigenous peoples and local communities, as appropriate, to grant access to their traditional knowledge to a potential user and includes the right not to grant consent or approval.

Consultation and full and effective participation of indigenous peoples and local communities are crucial components of an informed consent or approval process.

[5] The CBD uses the term 'traditional knowledge', while IPBES has decided to use the term 'indigenous and local knowledge', in part to indicate that the knowledge of IPLCs can be dynamic and can adapt to new circumstances, as opposed to being a fixed body of knowledge set in a traditional past. However, there are strengths and weaknesses to each term, and none fully encompass the diverse knowledge systems to which they refer.

3.2 FPIC in IPBES

3.2.1 FPIC in the IPBES approach to ILK

Authors of IPBES assessments have a responsibility to work as closely as possible with IPLC, and to follow FPIC principles.

Paragraph 11 of the IPBES approach to ILK notes that:

> *Within the approach, free prior informed consent will be sought, as appropriate, for accessing indigenous and local knowledge, and the activities should not occur where they would prejudice the internationally recognized rights of indigenous peoples and interests of local communities* […]. *Best practices and ethical guidelines, as appropriate, should be consulted to make decisions regarding the use of indigenous and local knowledge.*

The IPBES approach to ILK and this methodological guidance aim to follow FPIC principles, building, as much as possible, participation of IPLC, information sharing and feedback and approval from IPLCs into IPBES assessment processes and other areas of work, for example by engaging IPLCs in review processes of assessment drafts.

3.2.2 Principles for IPBES activities for working with IPLC

IPBES activities that involve participation by IPLCs will be built on equal sharing and joint learning across knowledge systems and cultures. The aim is to create an environment where people feel comfortable and able to speak on equal terms, which is an important precondition for true dialogue.

To achieve these aims, the following goals are emphasized:

- Equality of all participants and absence of coercive influence
- Listening with empathy and seeking to understand each other's viewpoints
- Accurate and empathetic communication
- Bringing assumptions into the open

If participants feel that the above goals are not being achieved at any point during IPBES activities, participants are asked to bring this to the attention of the organizers of the activity, or the IPBES technical support unit on ILK, at: ilk.tsu.ipbes@unesco.org.

3.2.3 Sharing knowledge and respecting FPIC

To ensure that knowledge is shared in appropriate ways during dialogue workshops and other IPBES activities, and that information and materials produced after these activities are used in ways that respect FPIC, we propose the following:

1. Guardianship – participants who represent organizations and communities
    - Principles of guardianship will be discussed with IPLC participants at the beginning of IPBES activities.
    - Participants who represent organizations or communities will act as the guardians of the use of the knowledge and materials from their respective organizations or communities that is shared before, during or after the workshop. Any use of their organizations' or communities' knowledge will be discussed and approved by the guardians, as legitimate representatives of their organizations or communities. Guardians are expected to contact their respective organizations and communities when they need advice. Guardians are also expected to seek consent from their organizations or communities when they consider that this is required, keeping in mind that sharing details of their community's knowledge can potentially have negative consequences, for example sharing the locations and uses of medicinal plants.

2. FPIC rights during dialogue workshops and other activities
   - The FPIC rights of the indigenous peoples participating in dialogue workshops or other activities will be discussed prior to the beginning of the activity, until participants feel comfortable and well informed about their rights and the process, including the eventual planned use and distribution of information. This discussion may be revisited during the activity, and will be revisited at the end of dialogue workshops once participants have engaged in the dialogue process.
   - Participants do not have to answer any questions that they do not want to answer, and do not need to participate in any part of an activity in which they do not wish to participate;
   - At any point, any participant can decide that they do not want particular information to be documented or shared outside of the activity. Participants will inform organizers and other participants of this. Organizers and participants will ensure that the information is not recorded. Participants can also request that the information is only recorded as a general statement attributed to a region or country, rather than to a specific community.
   - Permission for photographs must be agreed prior to photos being taken and participants have the right not to be photographed. Organizers will take note of this.

3. After the activity
   - Permission will be obtained before any photograph of a participant is used or distributed in any form.
   - Permission will be obtained before any list of participants is used or distributed in any form.
   - Participants maintain intellectual property rights over all information collected from them about themselves or their communities, including photographs. Their intellectual property rights should be protected, pursuant to applicable laws.
   - Copies of all information collected will be provided to the participants for approval.
   - Any materials developed for IPBES assessments or other products using information provided by participants will be shared with the participants for prior approval and consent.
   - The information collected during the activity will not be used for any purposes other than those for which consent has been granted, unless permission is sought and given by participants.
   - Participants can decline to consent or withdraw their knowledge or information from the process at any time, and records of that information will be deleted if requested by the participant. Participants should however be aware that once an assessment is published it cannot be changed, and information incorporated into the assessment cannot therefore be withdrawn from the assessment after this point.
   - Participants should have the opportunity of reviewing and commenting upon the final product, bearing in mind that responsibility for the final product rests exclusively with the authors.

3.2.4 Consent forms

During IPBES ILK dialogue workshops, the above principles can be printed and made available for all participants to sign (including authors, as most of the principles are issues that authors need to be especially attentive to). Alternatively, an e-copy can be produced with participants' names and emails affixed at the end. The contents and method for the consent form can be discussed with participants at the start of the activity.

3.2.5 FPIC in literature reviews

In the case of literature reviews, assessment authors should be attentive to the possibility that FPIC may not have been properly sought by the authors of a published paper or report. If IPLCs raise

concerns about materials used during the assessment process, authors have a responsibility to follow-up with the IPLCs in question, and potentially the authors of the publication in question. If resolution cannot be met, IPBES authors may need to consider removing a publication from their analysis.

3.2.6 FPIC during assessment reviews

During review periods and other activities, IPLCs may also raise concerns about draft findings relating to IPLCs and ILK in IPBES assessments. IPBES authors must explain the research and findings in plain language to the participants, and assess IPLCs concerns and the available evidence, free of coercion. Concerns raised by IPLCs shall be addressed with the IPLCs concerned, in an effort to gain understanding and agreement in good faith. IPLCs may also be able to direct authors to new sources of information in these circumstances, if they feel that the full range of information that should have been considered has not been taken into account.

4 Working with FPIC

4.1 Background

Free prior and informed consent (FPIC) is a specific right that pertains to indigenous peoples and is recognised in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). It allows indigenous peoples to give or withhold consent to a project that may affect them or their territories. Once they have given their consent, they can withdraw it at any stage. Furthermore, FPIC enables them to negotiate the conditions under which the project will be designed, implemented, monitored and evaluated.

Within the framework of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), principles of FPIC also apply to research or knowledge-related interactions between indigenous peoples and outsiders (including researchers, scientists, journalists, etc.). Given that IPBES processes include discussion of indigenous knowledge of biodiversity and ecosystems, there may be information which the knowledge holders or their organizations or respective communities consider sensitive, private, or as holding value for themselves which they do not want to share in the public domain through publications or other media without formal consent.

The Conference of the Parties to the Convention on Biological Diversity (CBD) adopted, in decision 16/18, voluntary guidelines for the development of mechanisms, legislation or other appropriate initiatives to ensure the free, prior and informed consent of indigenous peoples and local communities for accessing their knowledge, innovations and practices, which contain the following interpretation of FPIC:

Free implies that indigenous peoples and local communities are not pressured, intimidated, manipulated or unduly influenced and that their consent is given, without coercion.

Prior implies seeking consent or approval sufficiently in advance of any authorization to access traditional knowledge[6] (indigenous and local knowledge) respecting the customary decision-making processes in accordance with national legislation and time requirements of IPLC.

[6] The CBD uses the term 'traditional knowledge', while IPBES has decided to use the term 'indigenous and local knowledge', in part to indicate that the knowledge of IPLCs can be dynamic and can adapt to new circumstances, as opposed to being a fixed body of knowledge set in a traditional past. However, there are

Informed implies that information is provided that covers relevant aspects, such as: the intended purpose of the access; its duration and scope; a preliminary assessment of the likely economic, social, cultural and environmental impacts, including potential risks; personnel likely to be involved in the execution of the access; procedures the access may entail and benefit-sharing arrangements.

Consent or approval is the agreement of the IPLCs who are holders of traditional knowledge (indigenous and local knowledge) or the competent authorities of those indigenous peoples and local communities, as appropriate, to grant access to their traditional knowledge to a potential user and includes the right not to grant consent or approval.

Consultation and full and effective participation of indigenous peoples and local communities are crucial components of an informed consent or approval process.

4.2 FPIC in IPBES

4.2.1 FPIC in the IPBES approach to ILK

Authors of IPBES assessments have a responsibility to work as closely as possible with IPLC, and to follow FPIC principles.

Paragraph 11 of the IPBES approach to ILK notes that:

> *Within the approach, free prior informed consent will be sought, as appropriate, for accessing indigenous and local knowledge, and the activities should not occur where they would prejudice the internationally recognized rights of indigenous peoples and interests of local communities* […]. *Best practices and ethical guidelines, as appropriate, should be consulted to make decisions regarding the use of indigenous and local knowledge.*

The IPBES approach to ILK and this methodological guidance aim to follow FPIC principles, building, as much as possible, participation of IPLC, information sharing and feedback and approval from IPLCs into IPBES assessment processes and other areas of work, for example by engaging IPLCs in review processes of assessment drafts.

4.2.2 Principles for IPBES activities for working with IPLC

IPBES activities that involve participation by IPLCs will be built on equal sharing and joint learning across knowledge systems and cultures. The aim is to create an environment where people feel comfortable and able to speak on equal terms, which is an important precondition for true dialogue.

To achieve these aims, the following goals are emphasized:

- Equality of all participants and absence of coercive influence
- Listening with empathy and seeking to understand each other's viewpoints
- Accurate and empathetic communication
- Bringing assumptions into the open

If participants feel that the above goals are not being achieved at any point during IPBES activities, participants are asked to bring this to the attention of the organizers of the activity, or the IPBES technical support unit on ILK, at: ilk.tsu.ipbes@unesco.org.

strengths and weaknesses to each term, and none fully encompass the diverse knowledge systems to which they refer.

4.2.3 Sharing knowledge and respecting FPIC

To ensure that knowledge is shared in appropriate ways during dialogue workshops and other IPBES activities, and that information and materials produced after these activities are used in ways that respect FPIC, we propose the following:

4. Guardianship – participants who represent organizations and communities
   - Principles of guardianship will be discussed with IPLC participants at the beginning of IPBES activities.
   - Participants who represent organizations or communities will act as the guardians of the use of the knowledge and materials from their respective organizations or communities that is shared before, during or after the workshop. Any use of their organizations' or communities' knowledge will be discussed and approved by the guardians, as legitimate representatives of their organizations or communities. Guardians are expected to contact their respective organizations and communities when they need advice. Guardians are also expected to seek consent from their organizations or communities when they consider that this is required, keeping in mind that sharing details of their community's knowledge can potentially have negative consequences, for example sharing the locations and uses of medicinal plants.

5. FPIC rights during dialogue workshops and other activities
   - The FPIC rights of the indigenous peoples participating in dialogue workshops or other activities will be discussed prior to the beginning of the activity, until participants feel comfortable and well informed about their rights and the process, including the eventual planned use and distribution of information. This discussion may be revisited during the activity, and will be revisited at the end of dialogue workshops once participants have engaged in the dialogue process.
   - Participants do not have to answer any questions that they do not want to answer, and do not need to participate in any part of an activity in which they do not wish to participate;
   - At any point, any participant can decide that they do not want particular information to be documented or shared outside of the activity. Participants will inform organizers and other participants of this. Organizers and participants will ensure that the information is not recorded. Participants can also request that the information is only recorded as a general statement attributed to a region or country, rather than to a specific community.
   - Permission for photographs must be agreed prior to photos being taken and participants have the right not to be photographed. Organizers will take note of this.

6. After the activity
   - Permission will be obtained before any photograph of a participant is used or distributed in any form.
   - Permission will be obtained before any list of participants is used or distributed in any form.
   - Participants maintain intellectual property rights over all information collected from them about themselves or their communities, including photographs. Their intellectual property rights should be protected, pursuant to applicable laws.
   - Copies of all information collected will be provided to the participants for approval.
   - Any materials developed for IPBES assessments or other products using information provided by participants will be shared with the participants for prior approval and consent.
   - The information collected during the activity will not be used for any purposes other than those for which consent has been granted, unless permission is sought and given by participants.

- Participants can decline to consent or withdraw their knowledge or information from the process at any time, and records of that information will be deleted if requested by the participant. Participants should however be aware that once an assessment is published it cannot be changed, and information incorporated into the assessment cannot therefore be withdrawn from the assessment after this point.
- Participants should have the opportunity of reviewing and commenting upon the final product, bearing in mind that responsibility for the final product rests exclusively with the authors.

4.2.4 Consent forms

During IPBES ILK dialogue workshops, the above principles can be printed and made available for all participants to sign (including authors, as most of the principles are issues that authors need to be especially attentive to). Alternatively, an e-copy can be produced with participants' names and emails affixed at the end. The contents and method for the consent form can be discussed with participants at the start of the activity.

4.2.5 FPIC in literature reviews

In the case of literature reviews, assessment authors should be attentive to the possibility that FPIC may not have been properly sought by the authors of a published paper or report. If IPLCs raise concerns about materials used during the assessment process, authors have a responsibility to follow-up with the IPLCs in question, and potentially the authors of the publication in question. If resolution cannot be met, IPBES authors may need to consider removing a publication from their analysis.

4.2.6 FPIC during assessment reviews

During review periods and other activities, IPLCs may also raise concerns about draft findings relating to IPLCs and ILK in IPBES assessments. IPBES authors must explain the research and findings in plain language to the participants, and assess IPLCs concerns and the available evidence, free of coercion. Concerns raised by IPLCs shall be addressed with the IPLCs concerned, in an effort to gain understanding and agreement in good faith. IPLCs may also be able to direct authors to new sources of information in these circumstances, if they feel that the full range of information that should have been considered has not been taken into account.

5 Overview of ILK activities and IPLC participation throughout the assessment cycle

The following table provides an overview of activities relating to ILK and IPLC participation that can take place during an IPBES assessment.

Activity	**Aims and methods**	**Timing**	**Coordinators / Participants**
Overall			
Oversight	The task force on ILK, working with a TSU, oversees and facilitates IPLC participation at all stages of the assessment cycle	Throughout assessment cycle	ILK task force
Monitoring of IPLC participation	A mechanism for monitoring IPLC participation at all stages – including ILK expert participation within author groups, response rates to online calls, use of ILK material in final assessment, etc.	Throughout assessment cycle	ILK task force / TSU on ILK / TSU for assessment / assessment co-chairs
Stage 1: Scoping // Phase 1: Collaborative definition of problems and goals			
Requests for assessment topics	Networks of IPLCs specifically targeted and encouraged to request assessment topics	Within process for requesting topics	IPBES secretariat, TSU on ILK, other organizations Networks of IPLC, ILK experts, experts on ILK
Selection of experts for detailed scoping	• Promoting nominations of ILK experts and experts on ILK to IPBES call for nomination for the scoping expert group • *A separate nomination process may be required for ILK experts, with different selection criteria that do not necessarily prioritise publication records etc.*	Within process for calls for nominations for scoping	MEP and bureau, TSU on ILK Networks of IPLC, ILK experts, experts on ILK
Detailed scoping	• ILK dialogue workshop for scoping of assessment • Supporting the dialogue meeting by reaching out to networks of IPLCs to get input to scoping • Supporting the online review of the scoping document by amplifying its reach, including through group reviews among IPLCs and strategic partners	Scoping phase (dialogue workshop could be back-to-back with the general scoping meeting)	IPBES secretariat, TSU on ILK, strategic partners Networks of IPLC, ILK holders, ILK experts, experts on ILK

Stage 2: Expert evaluation // Phase 2: synthesizing and incorporating evidence and data			
Nomination and selection of experts	• ILK experts and experts on ILK included within assessment expert groups (authors and reviewers) from the start of an assessment • Relevant ILK organisations and experts targeted by calls for nominations • *Different selection criteria may be required for ILK experts, which do not necessarily prioritise publication records etc.*	During nomination and selection process for experts	MEP and Bureau, IPBES secretariat, TSU on ILK, strategic partners Networks of IPLC, nominated ILK experts
Gap filling and contributing authors	• Gap filling mechanism used for finding additional ILK experts and experts on ILK if needed • Later, additional ILK experts and experts on ILK recruited as contributing authors • *Different selection criteria may be required for ILK experts, which do not necessarily prioritise publication records etc.*	After initial nomination and selection process	Assessment co-chairs ILK experts and experts on ILK
Fellowship programme	• Early career ILK experts (and experts on ILK) engaged through the fellowship programme • Nominations of ILK experts actively sought from organisations, universities etc. • *Different selection criteria may be required for ILK experts, which do not necessarily prioritise publication records etc.*	Alongside the nomination and selection process for experts	Assessment co-chairs, TSU for capacity-building, TSU on ILK, strategic partners ILK experts and experts on ILK
Formation of ILK liaison group	ILK experts and experts on ILK selected from each chapter to form ILK liaison group. One assessment co-chair on ILK liaison group is ideal. Also resource persons, if needed.	Preferably before first author meeting	Assessment co-chairs ILK experts and experts on ILK from within author teams
Planning meeting of the ILK liaison group	Coordination and planning, distribution of work, operationalisation of scoping document	During the first author meeting, or remotely soon after	Assessment co-chairs, TSU for assessment, TSU for ILK ILK liaison group
Key ILK question development	• **ILK dialogue workshop** (suggested for funding under the IPBES trust fund) • Online call for inputs • Side events at other meetings and conferences • Developing key questions for each chapter, highlighting key resources, discussing methods, discussing contentious issues if any, developing case studies	Soon after or during ILK liaison group meeting	ILK liaison group, TSU for assessment, TSU for ILK, other organizations ILK holders, ILK experts, experts on ILK

Online call for contributions	Gathering key resources, including literature, names of organisations and experts	Soon after definition of key questions, open for 6 to 8 weeks	ILK liaison group, TSU for assessment, TSU for ILK, other organizations ILK holders, ILK experts, experts on ILK
Knowledge mobilization through direct engagement with IPLC	Mobilization of knowledge from IPLCs through local / national / regional ILK dialogue workshops	During development of zero draft chapters and before first order drafts	Strategic partners ILK holders, ILK experts, experts on ILK
ILK literature review	Review of available literature, including grey literature on ILK and IPLC, also using existing IPBES database of ILK materials (currently stored in Mendeley)	Soon after definition of key questions	ILK liaison group, other authors
Stage 2: Expert evaluation (cont.) // Phase 3: Review of drafts			
Reviewing FODs	• **ILK dialogue workshop** (suggested for funding under the IPBES trust fund) • Side events at other meetings and conferences • Discuss the first order drafts and provide feedback to authors, including gaps, and additional resources and experts • IPBES TSUs work with results of dialogue to produce and submit review comments	At very beginning of the review period for the first order draft to allow integration of comments	Assessment co-chairs, ILK liaison group, TSU for assessment, TSU for ILK, other organizations Networks of IPLC, ILK holders, ILK experts, experts on ILK
Reviewing SODs and SPM	• **ILK dialogue workshop** (suggested for funding under the IPBES trust fund) • Side events at other meetings and conferences • Discuss the second order drafts and draft summary for policymakers and provide feedback to authors, including gaps, and additional resources and experts • IPBES TSUs work with results of dialogue to produce and submit review comments	At very beginning of the review period for the second order draft and the draft summary for policymakers to allow integration of comments	Assessment co-chairs, ILK liaison group, TSU for assessment, TSU for ILK, other organizations Networks of IPLC, ILK holders, ILK experts, experts on ILK
Stage 3: Approval of final assessment			
Stage 4: Use of assessment findings // Phase 4: sharing knowledge and insights from an assessment with IPLC			
Communication and uptake strategy development	• **ILK dialogue workshop** on uptake and development of tools, practices and products for IPLCs • Develop a communication and uptake plan for producing specific materials for IPLCs from an assessment, including modes of outreach	After approval of final assessment	Other organizations, ILK liaison group Task force on ILK, TSU for assessment or TSU for ILK

			Networks of IPLC, ILK holders, ILK experts, experts on ILK
Products developed specially for indigenous peoples and local communities	• Developing complementary appropriate education, information and communication materials, policy briefs, web pages etc. for indigenous peoples and local communities • Outreach to policymakers to develop the links between indigenous and local knowledge and policy	After approval of final assessment	Other organizations, ILK liaison group Task force on ILK, TSU for assessment or TSU for ILK Networks of IPLC, ILK holders, ILK experts, experts on ILK
Knowledge-policy dialogues	Dialogues between policymakers and ILK holders and ILK experts on policy options and ways forward from IPBES assessment findings, at local / national / regional levels, depending on assessment	After approval of final assessment	Other organizations, Task force on ILK, TSU for assessment or TSU for ILK, ILK liaison group Networks of IPLC, ILK holders, ILK experts, experts on ILK, policymakers
Support the use of the assessment findings	Support monitoring the implementation of the assessment findings where appropriate	After approval of final assessment	Other organizations Task Force on ILK, TSU for assessment or TSU for ILK, ILK liaison group Networks of IPLC, ILK holders, ILK experts, experts on ILK, policymakers
Capacity-building			
Long-term ILK mobilization	Building capacity and supporting community-based monitoring and self-assessment schemes	Before, during and after assessment	Other organizations Networks of IPLC, ILK holders, ILK experts, experts on ILK,
Long-term ILK mobilization / policy processes	Building capacity of scientists and policymakers to work with IPLCs and ILK	Before, during and after assessment	Other organizations Networks of IPLC, ILK holders, ILK experts, experts on ILK, policymakers, scientific community

5.1 Monitoring of participation and engagement throughout the assessment cycle

There is currently no mechanism for tracking the direct participation of ILK experts and experts on ILK in the IPBES assessment process, and for tracking broader engagement of ILK holders (IPLC) in the participatory mechanism. Monitoring and reporting regarding ILK experts and experts on ILK could take place for all stages of the IPBES assessment cycle, and where appropriate in other IPBES activities.

This could include monitoring success rates of ILK experts and experts on ILK being nominated and selected as authors, participation in online calls, and the quality of ILK presented in final assessment reports (e.g. to what extent have key questions been answered). This monitoring and reporting process would be a key feature of the participatory mechanism. As much as possible, IPBES TSUs and co-chairs should aim to build monitoring of IPLC participation when developing methods (e.g. noting number of dialogue participants from IPLC, asking whether participants to on-line calls identify as IPLC).

6 Scoping (stage 1)

IPLCs should participate as much as possible during the scoping phase for assessments. Methods and participation of IPLCs for the scoping process could include:

- Before the scoping process takes place, networks of IPLCs could be specifically targeted and encouraged to request assessment topics;
- Developing key over-arching ILK questions for an assessment;
- Promoting nominations of ILK experts to IPBES call for nomination for the scoping expert group;
- Further developing the nomination and selection process to ensure that ILK experts and experts on ILK are selected into the scoping expert group;
- A specific ILK dialogue workshop for scoping of an assessment (see Section 7.5 for a discussion of dialogue workshop methods);
- Using an online call for inputs and specially targeting networks of IPLCs to get input to scoping (see Section 7.5.3 for a discussion of online call methods); and
- Encouraging strategic partners to support the online review of the scoping document, including through group reviews among IPLC.

7 Expert evaluation (stage 2)

7.1 Nomination and selection of experts

7.1.1 Expert nomination and selection processes

The selection of experts is overseen by the MEP, in consultation with the Bureau. The MEP must select a minimum of 80% of experts directly nominated by governments, while relevant stakeholders' nominations should comprise the other 20%.

A representation of ILK experts and experts on ILK may be desirable for assessment author groups. To facilitate this, calls for nominations should be distributed widely throughout networks of IPLCs and other relevant organisations. Potentially, expert selection processes may need to use different criteria for ILK experts (e.g. not prioritizing publication records or an academic background), including for gap filling and contributing authors, as discussed below.

To participate in an assessment expert group it is necessary to have a good level of English (oral and written) and an in-depth knowledge of research processes. For this reason, the approach to ILK recommends that ILK experts (IPLCs who may be scientists, NGO representatives, or have experience in science and /or policy, but may also be ILK holders) and experts on ILK may be more able to participate actively in assessment expert groups, while ILK holders may be more appropriately engaged through dialogue workshops requiring specific, detailed knowledge at a more local level.

7.1.2 Gap filling mechanism

If gaps in geographical, gender and expertise balance in author teams are identified, the co-chairs of the assessments together with the MEP and their respective coordinating lead authors (CLAs) can identify potential additional experts to fill these gaps. These experts will then be retroactively nominated following the approved procedure for filling gaps among groups of experts approved by the fourth session of the Plenary (decision IPBES-4/3, paragraph (a)).

This mechanism can be used to bring ILK experts or experts in ILK into expert groups, if the initial nomination and selection process has not provided the needed expertise for an assessment. Known experts can be specifically approached, or networks of IPLCs can be asked to recommend experts.

7.1.3 ILK liaison group

Once the authors for an assessment are determined, authors with ILK expertise can be identified and invited to form the ILK liaison groups for an assessment. One of the co-chairs of the assessment would ideally be on the ILK liaison group. The global assessment's liaison group, for example, had 28 members.

The ILK liaison group is tasked with including ILK within chapters, developing and carrying out ILK methods for the assessment (including online calls for inputs, dialogues, literature reviews, etc.), bringing in contributing authors (CAs) where needed, developing cross chapter linkages, and developing overall ILK narratives for an assessment. In this they would be supported by the TSU for the assessment and the TSU for ILK.

The ILK liaison group should aim to meet strategically throughout the assessment cycle, either remotely or during assessment author meetings.

There should be active communication and interactions between the ILK liaison group and the ILK task force (in part through the TSU on ILK). Ideally, expert groups for an assessment will include

members of the task force on ILK, and this would ensure good linkages between the liaison group and the task force.

7.1.4 Fellowship programme

The IPBES fellowship programme is coordinated by the TSU for capacity-building. The programme provides an opportunity for outstanding early-career individuals from all backgrounds and disciplines working on biodiversity and ecosystem services to participate in IPBES assessments. The fellowship programme may provide an avenue for young ILK experts and experts on ILK to be engaged in the authorship process for IPBES assessments.

Calls for nominations are sent out alongside the calls for nominations for assessment experts. A specific call could target IPLC institutions, and nominations of ILK experts (and experts on ILK) could be actively sought from organisations, universities etc.

A separate selection process could be considered for ILK experts, with criteria that do not necessarily prioritise an academic background or a record of publications.

7.1.5 Roster of experts and organisations

As part of the participatory mechanism, a roster of experts and organisations working on ILK has been developed. The global assessment's call for contributions (see Section 7.4.5) also produced a list of experts and organisations, which can be made available to new assessment expert groups.

7.2 Developing key ILK questions

The development of key questions related to ILK can help an assessment to frame its methods, data synthesis and writing relating to IPLCs and ILK.

As much as possible, development of key ILK questions should be done in close collaboration with IPLCs. Suggested methods include dialogue workshops with ILK holders, ILK experts, and experts on ILK. Online calls for inputs may also help to frame and refine key questions (see Section 7.5.3 for methods).

Paragraph 13 of the approach to ILK recommends that the development of key ILK questions take place during the scoping phase. If this is not done during the scoping phase, it could take place as soon as possible within the assessment process, potentially soon after the formation of the ILK liaison group for an assessment.

The approach to ILK suggests that the following three overarching questions may be used and/or adapted as necessary to the specific subject of the assessment:

(a) *What are the contributions of indigenous peoples and local communities in terms of their knowledge, practices and world views to the management and conservation of nature, the delivery of nature's contributions to people and ensuring a good quality of life at the regional and global scales?* This question is based on the accumulated evidence that ILK is locally based, dynamic and shaped by innovation, but regionally manifested, and globally relevant.

(b) *What are the most important pressures and factors undermining these contributions, as well as affecting the quality of life of present and future generations of indigenous peoples and local communities?* This question is based on accumulated evidence that in many regions of the world IPLCs are subjected to social, economic, political and environmental/ecological pressures, are largely marginalized, and experiencing high rates of social and environmental changes.

(c) *What policy responses, measures and processes exist for strengthening and improving the governance of nature and nature's contributions to people with regard to indigenous peoples and local communities and their knowledge and practices?* This question recognizes an important role for IPLCs in supporting the global post-2020 biodiversity framework and the 2030 Agenda for Sustainable Development, including the Sustainable Development Goals.

Key ILK questions can also be developed for each chapter (36 chapter specific ILK questions were developed for the global assessment – the full list can be found in Annex 1). Each set of questions could aim to provide the foundation for subsequent chapters. These questions can be designed to provide a thread in analysis and narrative throughout the assessment, as well as cross-chapter storylines for topics related to IPLC.

Given that indigenous and local knowledge systems are very diverse, it may help to cross-reference the question development with specific attention to indigenous livelihoods, ecosystems contexts and characteristics of biodiversity use, with attention to regional and local differences.

The questions can also articulate the macro and micro-analyses of ILK/IPLC contexts, connecting the global trends with specific cases at the regional, national and local level as necessary. As such, they can also aim to mobilize multiple forms of evidence. These questions can also aim to help to identify gaps in data, knowledge, and regional representation of ILK and IPLC.

7.3 Mobilizing written ILK data and information

Mobilizing written ILK information is very important for IPBES assessments, as efforts to engage directly with IPLCs will be limited to a great extent by time and budget restraints. Mobilizing written ILK information will mostly be done during the expert evaluation phase of an assessment, although it may also take place during the scoping phase.

7.3.1 Potential sources of written ILK data and information

In order to better engage with ILK, IPBES assessments can include a wide array of evidence and data from multiple sources. In particular, IPBES assessments can consider forms of literature beyond peer-reviewed scientific literature. Grey literature (e.g., technical reports, policy briefs, or case study compilations) can be a vital complement to peer-reviewed references as they can contain a great deal of information about ILK and IPLC. In particular, materials that IPLCs have produced themselves at the community or organisation level may often take the form of grey literature rather than peer reviewed scientific literature.

As such, sources of written information that can be included in IPBES assessments include a wide array of evidence and data from multiple sources:

A. Peer-reviewed literature and synthesis reports (e.g., standard literature search in indexed journals, search engines, etc.).
B. Compilation of literature, data and cases from other IPBES assessments and related reports, such as the Local Biodiversity Outlooks (https://localbiodiversityoutlooks.net/) produced by indigenous peoples, among others.
C. The compilations of case studies presented in the *Proceedings of the IPBES ILK Dialogue Workshops* carried out for the pollination assessment and regional assessments.
D. Compilation of reports and data from international research centres and institutions (e.g. the Food and Agriculture Organisation (FAO), Center for International Forestry Research (CIFOR), the World Agroforestry Centre (ICRAF), the research programme on Climate Change, Agriculture and Food Security (CCAFS), etc.) and relevant regional centres.
E. Compilation of spatially explicit data and geospatial data sources (e.g., CBD, World Resources Institute (WRI), The Amazon Geo-Referenced Socio-Environmental Information Network

(RAISGs), IUCN, UNESCO, UNEP-WCMP, UNEP-Arendal, Community-Based Monitoring and Information Systems (CBMIS), satellite data, archival maps, etc.).

F. Compilations of knowledge and materials produced and selected by IPLCs themselves.
G. Compilations of knowledge and materials produced by ILK experts for use by networks of ILK custodians and others working with indigenous peoples.

7.3.2 Languages and written information

It should be noted that many relevant sources of written information may not be published in English. Recent research suggests that over a third of new conservation science documents are published in languages other than English, despite the assumption of English as the scientific "lingua franca" (Amano et al. 2016). These figures are arguably higher in the case of ILK literature, which is often unavailable in English, and is instead published in local languages relevant to IPLCs themselves (McElwee et al. in press). Participants at IPBES ILK dialogue workshops have also highlighted that information on their communities (both peer-reviewed and grey literature, including reports that the communities have produced themselves) is often not published in English. Working mostly with English literature can therefore contribute to biases in global understanding of ILK. Ideally, author teams should be as multi-lingual as possible to allow access to non-English publications. Other mechanisms may also need to be developed to engage with non-English materials, especially in relation to IPLC.

7.3.3 Knowledge encoded in non-written forms

As noted in the approach to ILK, much ILK may not exist in written formats, and may instead be in forms such as ritual, story, ceremony, dance, song and visual manifestations, including symbols, documentaries and artwork. The variety of formats and the difficulty of accessing them pose a major challenge for their inclusion in IPBES assessments (See also Section 7.6.6 for a discussion of methods). Sometimes knowledge holders have not recorded their knowledge in any form, or their knowledge has been transmitted in a non-tangible form. Dialogues with ILK holders and ILK experts (discussed below in Section 7.5) can to an extent begin the process of accessing a small portion of this knowledge. Catalysing research with ILK holders may also begin to address this challenge more effectively in the long term (see Section 8.3).

7.4 Methods for mobilizing written data, information and knowledge

7.4.1 Using a variety of methods

There are various methods available to IPBES authors that they can use to access the sources of written information listed above. As discussed below, and as shown in table 2, systematic literature reviews may not provide a good representation of all the written information available about ILK and IPLC, as much of this knowledge may be contained in grey literature. It is therefore recommended that this method is complemented by other more targeted methods, as discussed below.

Table 2: From reflections on the Pollination Assessment, this table explores the potential differences between performing a systematic literature review and an ILK review (Hill 2016).

Systematic review: origins medical science		**ILK review: origins historiography**	
Feature	**Mechanism**	**Feature**	**Mechanism**
Many studies in peer-reviewed journals	Specify data bases to be searched e.g Web of Science, etc.	Widely dispersed in communities, art, music, grey literature, books, journals	Identify the richest and best sources through experts (workshops and goal-specific collection)
Access moderated through markets	Work with academic institutions who have paid for access	Access moderated through customary law and markets (Free Prior and Informed Consent)	Work with ILK organisations to develop FPIC and academic institutions who have paid access
Studies of diverse quality	Specify attributes e.g. meta-analyses, large samples	Studies of diverse quality in diverse literatures	Attribute sets: e.g. ILK self-representation (in); obvious racism (out); many cases (in)
Studies aim to provide the relevant information	Search terms on specific fields and sources (replicable)	Relevant information may be incidental to study aim	Analytical framework to guide the search
Confidence about quality & quantity of evidence	Assessed by experts at IPBES meetings	Confidence from the co-production of information	Engage ILK holders / ILK experts throughout the process

7.4.2 Systematic literature reviews

Systematic literature reviews are arguably the main way that IPBES authors will bring ILK into an assessment.

Method: Systematic reviews can be conducted of peer-reviewed literature using specific search term-based reviews in Web of Science, Scopus, Google Scholar, etc. However, a lack of proper key words to capture the complexity of the issues being analysed can mean that further searches and reviews are required.

For example, in the global assessment, a section on the contributions of IPLCs to biodiversity, its management and protection used specific terms (including *nature conserv*, biodiversity, cultural landscape, biocultural diversity* and others) to cover the ecological aspects of these contributions, but additional searches had to be run and a careful examination of the reference lists of the reviewed publications had to be made to find the most relevant local cases (McElwee et al, in press).

Other examples of systematic ILK literature review searches from the Global Assessment include:

A review for Aichi Target 6: Sustainable fisheries (Lead Author: Victoria Reyes-García, CA: Margarita Lavides, Reviewers: Nadav Gazit, Eleanor Sterling). The literature review used the following search terms as topics: ("*indigenous communit**" OR "*indigenous people$*" OR "*local communit**" OR "*traditional ecological knowledge*" OR "*TEK*" OR "*indigenous knowledge*" OR "*traditional management*" OR "*indigenous management*" OR *ILK*) AND ("*fisheries management*" OR "*sustainable fisheries*" OR "*Aichi Target 6*"). This resulted in 300+ search results in Topic search on Web of Science,

of which 130 were relevant to the topic. Additional 118 papers were also selected from the authors' own literature database.

A review for Aichi Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity. The literature review used the following search terms as topics: *("indigenous communit*" OR "indigenous people$" OR "local communit*" OR aborigin* OR "traditional ecological knowledge" OR "IPLC" OR "indigenous knowledge" OR "traditional management" OR "indigenous management" OR ILK) AND ("agriculture" OR "aquaculture" OR "forestry" OR "silviculture" "Aichi Target 7") AND ("sustainability" OR "management" OR "biodiversity").* The string resulted in 656 search results in Topic search on the Core collection of the Web of Science with a subscription at The University of Texas, of which 49 were directly relevant. Additional papers were selected from the authors' own literature database.

A review for Aichi Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment. The literature review used web of sciences and google scholar. The searches used the following search terms as topics: ("*indigenous communit**" OR "indigenous people$" OR "local communit*" OR aborigin* OR "*traditional ecological knowledge*" OR "*TEK*" OR "*indigenous knowledge*" OR "*traditional management*" OR "*indigenous management*" OR *ILK*) AND ("*invasive species*" OR *invasive* OR "*non-native species*" OR "*environmental invasion*"). The string resulted in 65 search results in Topic search on the Core collection of the Web of Science with a subscription at UAB. The results were further completed with grey literature and references from other sources. The most representative papers only were included in the review.

Text taken from the supplementary materials for Chapter 3 of the Global Assessment

Strengths: This type of analysis may produce the richest and broadest overviews of global research about ILK.

Weaknesses Often this analysis does not capture the views of IPLCs themselves, but rather the analysis of the scientific community, and much of the grey literature and other forms of data and information relating to ILK will be missed.

7.4.3 Contributing authors

Contributing authors (CAs) can be invited to write small portions of assessment text. The ILK liaison group and chapter CLAs can identify potential CAs – preferably ILK holders or ILK experts – who can help to address gaps in information on ILK from different regions of the world. CAs can also help to identify relevant regional literature and information. Chairs or authors of an assessment can also be asked to be contributing authors to a chapter on which they were not originally designated to work in the same assessment.

Contributing authors can also be coordinated to conduct systematic literature reviews focusing on ILK around specific topics. To ensure homogeneity, the chapter leadership team can provide specific guidelines on how the literature review should be conducted (for example by specifying search terms) and how to organize the information (for example around a series of questions, and within a word limit). Contributing authors can also be asked to complement the text and the list of references with references and ideas from their own work, and to provide a case study to illustrate any of the questions. The text produced by the contributing authors can then be sent to 3-4 experts on the topic for external review (McElwee et al. in press).

The IPBES ILK roster can be used to help identify contributing authors. A continuously updated version of this roster is maintained by the technical support unit on indigenous and local knowledge.

7.4.4 ILK materials database

A database of papers, reports and other materials collected during the global assessment, the regional assessments and the land degradation assessment is available to IPBES authors in a searchable repository (Zotero). This holds more than 1200 academic articles, reports, websites, and videos in about 15 languages, some of which are indigenous. This will be continuously added to as additional literature is gathered by new assessments, including through call for contributions (see below), literature reviews and ILK dialogue workshops.

7.4.5 Online call for contributions

An on-line call for contributions can be employed for IPBES assessments, to mobilize information and locate networks, organizations and experts that might otherwise have been unknown.

Goals:

i. Identify and compile key sources of knowledge, data and information that might otherwise be unavailable to authors (including scientific literature on ILK, reports, grey literature, datasets, videos);
ii. Identify possible key partners and/or contributing authors (CAs) including networks and organisations of IPLC, and individual ILK experts, experts on ILK and ILK holders;
iii. Increase visibility of an assessment.

Target partner: a wide range of networks and/or stakeholders including those from governments, academia, civil society at large, and IPLCs (through IPLC organizations and networks, and ILK experts).

Method: the ILK liaison group can develop a proposed call for contributions, requesting information along key themes relevant to the assessment, organised around different broad, cross-cutting topics, or by assessment chapter. The call for contributions invites materials including information about publications and reports, data, information about organizations, and names of individual experts working on indigenous and local knowledge, etc. It could be available in English, Spanish and French where possible, to reach a wider audience who may not use English as a first language. This would be pre-tested and distributed widely by the secretariat.

Timing: As soon as possible within the assessment process once the ILK liaison group and the key ILK questions are developed.

Strengths: This method is useful for mobilizing grey literature and other forms of information that may not be available through a systematic search of peer-reviewed literature. It is also useful to reach a wider and heterogeneous constituency (both of individuals and organizations related to IPLC, academics, and practitioners), to create new networking possibilities, and to extend the dissemination and recognition of IPBES activities. The information received on organizations and experts can be used to identify new aspects not yet covered in the assessment; it can also be useful to identify contributing authors for the different chapters.

Weakness: Participation may be biased towards academics, researchers and organisations, rather than ILK holders.

7.5 Dialogues with IPLCs

Dialogue with IPLCs is a crucial method for mobilizing ILK data and information for IPBES assessments, and it should be used to strategically complement the reviews of written information discussed above.

Key methods for dialogue with IPLCs during an IPBES assessment include:

1. Face-to-face dialogues with ILK holders and ILK experts (and experts on ILK) during in-depth workshops over a day or more
2. Face-to-face information and results sharing with representative networks and organizations of IPLC
3. Online calls for inputs

These activities all have strengths and weaknesses and together will increase the extent to which ILK is included in an assessment, and the extent to which IPLCs are adequately consulted and informed during the assessment process. These mechanisms do not represent the only activities that can take place within the context of an assessment. They are discussed in turn below.

7.5.1 Face-to-face dialogues with indigenous peoples and local communities

In-depth dialogues lasting one or more days between ILK holders, ILK experts, experts on ILK, and IPLCs can create for IPLCs to provide input to, review and potentially co-produce content for an assessment.

To the extent possible, these dialogues would be planned in collaboration with partner organisations or networks of IPLC, which would also facilitate these dialogues.

Goals: The intent of these dialogues is to carry out face-to-face discussions on specific issues or themes and/or products (chapters, chapter sections, summary for policymakers (SPM)) relevant to an assessment. This type of consultation provides an opportunity for more in-depth discussion regarding specific chapter content (e. g. protected areas, agrodiversity, knowledge loss, etc.) in addition to reviewing key findings of the chapter executive summaries and the overall SPM.

Potential participants:

- ILK holders
- ILK experts (including researchers; representatives of IPLC organizations / networks)
- Experts on ILK
- ILK liaison group and interested authors

Methods: These events can be organised directly by IPBES, or can be arranged and defined in partnership with other organisations. They may involve co-production of specific content and/or review-consultation of pre-existing content of the chapters, with the involvement of participants attending such events. As much as possible, IPLC participants and networks should be involved in defining the agenda and framing the discussions from the start of the organisation process. Participants could include ad-hoc invitees suggested by the IPLC organization/network supporting the organization of the dialogue. These events can also help to expand the network of engagement with IPLCs that will continue during an assessment and longer-term.

Follow-up to dialogue workshops will also be important – working with participants to develop recommendations, case studies and a report from the meeting, and eventually following up to explain how the information was used in the assessment.

If the dialogue is with ILK holders this would ideally be organized in a venue that provides an enabling environment to the ILK holders. Budget constraints may limit the ability of authors to take part in these type of activities, though extra funding could be sought from other organizations.

Where funding is not available for an IPBES workshop, authors can also attend relevant events organised by other organisations. At these events, questions relevant to the assessment can be raised by authors for discussion. There may also be opportunities for one-on-one interviews with IPLC participants on the side-lines of these meetings.

Timing: Timing of face-to-face dialogues can vary, depending on the goals of the consultation. Earlier in the assessment process they are more likely to provide direction to authors and identify gaps and new resources. Later in the assessment process they may be useful methods for reviewing assessments with IPLCs (see Section 7.7).

Strengths: Face-to-face dialogues offer more opportunities than most methodologies for engaging in a meaningful way with ILK holders, ILK experts and experts on ILK and gaining knowledge and insights that can be incorporated into an assessment. They also give time for participants to engage with materials that are presented, offering feedback and advice on an assessment.

As these meetings specifically invite IPLC, they can be considerably more effective than online processes in engaging ILK holders (as online processes may often be more used by researchers and organisations). Moreover, collaboration between assessment authors and other organizations and networks has the potential to extend the reach of consultations to different regions of the world.

Dialogue workshops can also function as capacity-building activities – helping ILK holders and ILK experts to see the value of their knowledge, and to understand how their knowledge could be used in research processes, while also building interest and capacity among IPBES authors.

Weaknesses: The number of participants that can take part in face-to-face dialogues will be limited due to budget and timeframe constraints reducing the likelihood of an overall global/regional and sociocultural representation.

Workshops within communities, or learning and sharing processes involving extended periods engaging with ILK holders on the their lands or waters, may be the best ways for authors to gain in-depth knowledge and insight from ILK holders. Budget and time restrictions may however limit the ability of authors to participate in such activities. IPBES and its assessments can however aim to stimulate more on-the-ground research with and by IPLC, through capacity-building activities, highlighting knowledge gaps, and influencing policy (see Section 8.3 for a discussion on catalyzing new research).

7.5.2 Face-to-face information sharing and/or input seeking with representative networks and organizations of IPLCs

Short information sessions can take place within the framework of larger meetings and events, such as meetings of the CBD COP, the United Nations Permanent Forum on Indigenous Issues (UNPFII), or other large summits and conferences that will be attended by ILK experts, experts on ILK and potentially ILK holders.

Goals: Disseminating information about the assessment, its timetables, and goals. Establish connections with individuals and networks. Gain input on specific questions relating to an assessment.

Potential participants:

- ILK experts (including IPLC organization leaders attending the framework meeting or conference)
- ILK holders (if they are attending the framework meeting or conference)
- Experts on ILK
- ILK liaison group

Methods: 1- to 2-hour events presenting plans for the development of an assessment to participants. These events will have more of an emphasis on information sharing and stimulating interest in the assessment. There could be an emphasis on inviting input regarding the ILK in the assessment, discussing future opportunities for participation (specifically the external review periods) and more localized consultations, and nurturing a network of IPLC engagement that will continue during the assessment and longer-term.

Of note is that the global assessment has developed a good relationship with the UNPFII, by attending their annual meetings, giving updates in the plenary and holding side events. This relationship could be continued and further developed by future IPBES assessments.

Timing: These sessions can take place at any stage in the assessment process, and can be tailored towards sharing information relevant to the assessment at any given stage (e.g. scoping, review periods, post-assessment outreach)

Strengths and weaknesses: Short face-to-face information activities are good ways of sharing information about IPBES and the assessment, and in some cases to collect input during the scoping phase of the assessment. Within the time limit of one to two hours it is unlikely that detailed knowledge and information will be gained, although key connections can be made to resources and experts that can be pursued after the information-sharing session.

Also, these larger events may primarily involve ILK experts and experts on ILK already engaged in global fora (such as the CBD or academic conferences) and thus ILK holders still practicing ILK and not already partnering with global institutions may not be reached in this way.

7.5.3 Online calls for inputs

An online call for inputs can be used to reach out to and consult with a broad range of ILK holders, experts on ILK and ILK experts, who might not otherwise be aware of or engaged in an IPBES assessment.

Goals:

i. Addressing any key questions or topics that require particular attention;
ii. Increase visibility of an assessment;
iii. Identify possible key partners and/or contributing authors;
iv. Identify key sources of data and information.

Participants: A wide net of networks and/or stakeholders including those from governments, academia, civil society at large, and IPLCs (through IPLC organizations and networks, and ILK experts); if and where possible partners would be encouraged to amplify the reach and feedback to the online call for inputs.

Method: The ILK liaison group can develop an online call for inputs, and this may be most effective if done in collaboration with partners such as the Satoyama Initiative or relevant networks of IPLCs that have good experience of reaching out to their networks to collect key pieces of information. As much

as possible, key partners and networks of IPLCs could be engaged in framing the questions and planning the distribution of the call for inputs. Specific questions sent to strategically chosen recipients may generate more detailed responses than broad questions disseminated widely. The call for inputs would be pre-tested and distributed by the secretariat. The call for inputs could request inputs to the guiding questions of the assessment as well as on publications and data, organizations and networks, and individuals. Ideally, such calls would be translated into at least the three UN languages – other languages may be necessary if specific regions are targeted.

Timing: When refinement of key questions is needed; when gaps in knowledge or information become apparent; during the development of FODs.

Strengths and weaknesses: Online calls for inputs may be useful to reach a wider and heterogeneous constituency (both of individuals and organizations related to IPLC, academics, and practitioners), to create new networking possibilities, and to extend the dissemination and recognition of IPBES activities. Online call for inputs, however, may be limited in terms of depth of content provided. Furthermore, participation is likely to be biased towards researchers and academics working on ILK (ILK experts and experts on ILK) rather than ILK holders or local level IPLC organisations. This can be remedied to an extent by close collaboration with networks of IPLC, and targeted distribution and follow-up, and carefully designed framing of questions.

7.5.4 Who should be engaged?

There are many challenges in engaging holders of local, often contextualized knowledge in global or regional scale assessments, and the participants for different activities need to be carefully considered.

Key issues to consider include:

- How specific is the knowledge sought? Does the assessment (or part of an assessment) require in-depth detailed knowledge on a specific subject, or more general information about ILK and IPLC?
- At what scale is the knowledge being sought? Does the assessment (or part of an assessment) require detailed knowledge from specific localities (which can then be up-scaled or used as case studies), or does it require an overview of knowledge of ILK and IPLCs at a global or regional scale?
- What is the nature of the knowledge being sought? For example, does the assessment (or part of an assessment) require detailed information about an ecosystem, or does it require information about how IPLCs are engaging in policy processes at the national or regional level? Is the aim to provide knowledge to an assessment, or to provide feedback on what has been written during the review process? Is the aim to co-write sections of the assessment, or gain an overview of the concerns of IPLC?
- How much time and budget does an assessment have for these types of activities? There may be a limited amount of activities that can take place within the time and budget limitations of an assessment – careful consideration needs to be given as to how to achieve the best representation of knowledge across the scales and themes of an assessment.

While ILK holders may provide the most detailed information on specific subjects, this may be highly localised and contextualised. Accessing communities on the ground can also be time consuming and expensive, and as a result getting a good representation from across a region or globally can be a challenge.

ILK experts and experts on ILK may provide less detailed knowledge and information, but they may be able to provide more general information about a country or region, particularly if they are

involved in coordinating networks or research, and more information on connections between local level knowledge and practices and national or international policy.

Networks of IPLCs may also be invaluable partners in finding the appropriate participants to be in different roles at different phases of the assessment cycle. Some networks of IPLCs also have experience in pushing key questions or calls for inputs out through their networks to get targeted responses.

Networks and organizations of IPLCs include: the IPBES centres of distinction on indigenous and local knowledge, the CBD-related International Indigenous Forum on Biodiversity (IIFB), Indigenous Partnership for Agro-biodiversity and Food Sovereignty, regional networks such as Coordinadora de las Organizaciones Indígenas de la Cuenca Amazónica (COICA), Indigenous Peoples of Africa Coordinating Committee (IPACC), Mesoamerican Alliance of Peoples and Forests, Russian Association of Indigenous Peoples of the North (RAIPON), Asia Indigenous Peoples Pact (AIPP), to cite only very few.

Organisations and networks that work with IPLCs and issues specific to IPLCs may also be invaluable partners. Such organisations and networks include the Indigenous and Conserved Communities Areas (ICCA) Consortium and Forest Peoples Programme (FPP).

7.6 Writing with ILK

As with the rest of this methodological guidance, the theme of the assessment and its structure may affect the approach to writing and representing ILK that authors may choose to take.

7.6.1 Cross-chapter narratives

The first chapter can provide a global overview of who IPLCs are, their populations and distribution, why they are important, and the lands and ecosystems that they manage. Chapter 1 can also set the scene of the importance of IPLCs in relation to the theme of the assessment.

The key ILK questions developed at the beginning of the expert review process can be a frame of reference and a guide for developing cross-chapter narratives during the writing phase of the assessment, and can also function as an internal review and monitoring mechanism for authors as their chapters develop, seeing to what extent the questions have been answered, and where gaps remain.

7.6.2 The multiple evidence-based approach

In general, where relevant, information and data could be considered through a 'multiple evidence-based approach' (MEB), an approach that: "proposes parallels whereby indigenous, local and scientific knowledge systems are viewed to generate different manifestations of knowledge, which can generate new insights and innovations through complementarities. MEB emphasizes that evaluation of knowledge occurs primarily within rather than across knowledge systems. MEB on a particular issue creates an enriched picture of understanding, for triangulation and joint assessment of knowledge, and a starting point for further knowledge generation" (Tengö et al. 2014, also Tengo et al. 2017). As much as possible the synthesis and writing stages of an IPBES assessment could follow the later stages of the process for collaborating across diverse knowledge systems (translate, negotiate, synthesise, apply) recommended by Tengo et al. 2017.

7.6.3 Validation

Agreeing on the appropriate validation mechanisms between knowledge systems (Lofmarck & Lidskog 2017) remains an ongoing process for IPBES, and expert groups should pay particular attention to this issue. In general, as far as possible, validation should be undertaken by IPLCs themselves, rather than

by outside researchers, and at an overview-scale the ILK dialogue workshops can serve to have IPLC representatives validate the general findings of the assessment.

At a finer scale, IPBES has a mandate to review and consider grey literature in its assessments. In terms of community reports or other materials produced by IPLC, authors should not apply the same criteria as they would to scientific literature. Instead they could consider the source of the knowledge, the detail provided, and the processes by which it was developed and documented. The community can also be contacted to follow up and find out more. Triangulation can also be used, where if information is found in several sources it could be given more weight. During these processes it is important to be respectful towards the IPLCs who have provided the information.

7.6.4 Working with ILK within the assessment text

It is often preferable for ILK to be woven throughout an assessment text, rather than ILK only appearing in boxes or as case studies. The assessment should seek to balance large-scale synthesis and spatial up-scaling (literature and geospatial data sources) with a rich illustration of cases from different parts of the world (i.e., the practices, worldviews, voices, and faces of IPLC). An important role of the ILK liaison group during the analysis and writing phase is to up-scale experiences learnt from local case studies, so they may be used throughout the assessment. However, many challenges remain in this balance between contextualized knowledge and large-scale synthesis, and there is a lack of knowledge up-scaling mechanisms (McElwee et al. in press). Challenges include that ILK knowledge can become 'flattened' and decontextualized through synthesis if not careful (Lofmarck & Lidskog 2017) or be missing components when disassociated from institutions used to manage ILK on the ground (Tengö et al. 2017).

Authors of the Global Assessment **explicitly referred to ILK/IPLCs when writing about topics that were supported by evidence from ILK,** even where other different knowledge forms were also contributing. This is because the reference system used in the assessment report might not be obvious enough for external readers to know that authors are using information from an ILK/IPLC perspective, so clearly flagging ILK and IPLCs in the text is important. Signalling/explicit references to ILK also serve IPBES mandate and leadership position in encouraging attention to ILK. For instance, Chapter 2 of the Global Assessment (on drivers of change) had a section and a table of indicators of environmental change derived from ILK.

There is no easy method for developing the text. Global Assessment experts had an iterative writing process, where text was drafted and redrafted and they asked, is this sufficient? Are there any emblematic examples? Is it balanced between incorporation of ILK throughout the main text and case studies? The **key ILK questions** developed at the beginning of the process served as tools for framing text and monitoring progress.

ILK liaison group members need to take the lead in reviewing ILK literature and writing and discussing with other authors in their chapter to make sure that IPLCs and ILK issues are included in all the sections of their Chapter. In Chapter 6 of the Global Assessment, they were three ILK liaison group members (advocates) who shared the work, including reviewing the literature and reading the other authors' sub-sections.

7.6.5 Case studies

Boxes and case studies may be used to represent specific cases that illustrate or provide added context to a theme, and may greatly enrich the more generalised knowledge used in the main assessment text. It is therefore recommended to **conduct literature reviews and develop the main text before selecting case studies that support the text**.

It is also important to keep in mind the general guidelines on case studies. Case studies cannot be too long, usually half a page maximum, and they should provide emblematic examples that illustrate and enhance points made in the main text. When developing case studies, it is important to keep in mind

the word limit of the chapter as a whole. In the case of Chapter 6 of the Global Assessment, a lot of the case studies that were developed were finally removed from the chapter and added to the supplementary materials, as the chapter was over its word limit.

Supplementary materials are an additional publicly accessible repository of information for an assessment and can be used to give extra information on an issue that is only highlighted briefly in the main assessment text. These can be used to give more details to case studies (or other information) used in the assessment.

7.6.6 Working with other forms of knowledge materials

There are challenges in giving value and attention to other forms of knowledge materials (e.g. artworks, songs) in a written assessment. However, artworks or songs can demonstrate a different worldview and give value to other forms of representing knowledge, and therefore there can be value in including them, as was done in the pollination assessment. Another example is a graphic of an indigenous seasonal calendar, which was included in the land degradation assessment SPM. Free prior and informed consent is usually essential if art, songs or other knowledge forms are to be represented in an assessment.

7.6.7 Scenarios

There can be major challenges in incorporating lessons from ILK in scenario development, as the literature does not show many scenario building exercises that have included the participation of IPLC. There are also few scenario papers that directly or explicitly address the issues of IPLC. The IPBES scenarios and models expert group of IPBES has however included IPLCs in its participatory approach to scenario development and will continue to do so, and may be a resource for the future.

7.7 Review processes

External reviews of 1st and 2nd order drafts of assessments are conducted by making the drafts available online on the IPBES website and inviting comments by reviewers.

Calls for participation in the review processes can be distributed widely through email lists aimed at IPLC, encouraging engagement in reviews. Collaboration among IPLCs or their organisations to create group consensus comments could be encouraged.

Individuals and organisations who participated in the original online call for contributions can also be specifically invited and encouraged to participate in the reviews.

Dialogue workshops aimed at engaging IPLCs in reviews may also be important, as many ILK holders and ILK experts have reported that they do not have the time or resources to participate in online reviews of long documents. These workshops can be opportunities for assessment authors to explain or highlight particular sections of an assessment, or to give an overview of an entire assessment, and receive feedback from participants. IPLC participants can then be encouraged to engage in the review process. Alternatively, review comments documented during a review workshop can be submitted by the workshop organisers / the TSU for ILK / the TSU for the assessment, indicating in the comment form the names of the participants that provided the comments. Section 7.5.1 gives a discussion of dialogue workshop methodologies.

8 Use of the final assessment findings (stage 4)

8.1 Outreach and uptake

8.1.1 Background to IPBES procedures

The SPM in all UN languages and the chapters in English are prepared for the Plenary, formatted as Plenary documents.

In addition, the following materials have been published by the IPBES communications team:

(1) a short (1 minute) 'teaser' video with top-line key messages
(2) the 'laid-out' SPM - English only (printed and electronic)
(3) the "laid-out chapters" (printed and electronic)
(4) a short deck of presentation slides (+/- 10) with key messages and policy options, and
(5) a professional outreach video (about 5 minutes each) narrated in English with subtitles in all 6 UN languages.

8.1.2 Outreach and uptake specific to IPLC

Participants of IPBES ILK dialogue workshops[7] have highlighted that IPBES assessments can be invaluable tools for IPLC, but that specific products would need to be created in order to enhance their use and uptake. They highlight that this would need a dedicated strategy and funding, and that partner organisations would be invaluable. They also noted that products that address issues specific to IPLCs could be used as tools by IPLCs in discussions with government or other stakeholders.

Suggestions for products include:

- Posters and fact sheets based on the assessment;
- Toolkits (training manuals, guidelines);
- Websites that allow specific themes or narratives of an assessment to be tracked and synthesized;
- Educational and information materials;
- Key messages with images adapted for social media.

The limited number of languages that IPBES products are currently available in was also highlighted as a major limitation in terms of use and uptake by many IPLC.

Following FPIC principles, where there has been direct interaction with indigenous peoples' organisations, appropriate follow up after the assessment is published should take place. This may include sending a copy of the SPM to the community organisation or representative, or a dialogue on the outcomes and SPM key findings. Indigenous peoples who invest in an assessment may want to understand their opportunity to follow up at the national level as the policy process develops after the assessment is released.

[7] See for example the IPBES Dialogue Workshop on Arctic Indigenous Knowledge, Meeting Overview, June 6-8, 2018, University of Helsinki, Helsinki, Finland

8.2 Knowledge-policy dialogues

There may be opportunities for organising post-assessment dialogues between policy-makers and ILK holders and ILK experts, which would aim to explore policy options and ways forward from IPBES assessment findings, at local, national or regional levels, depending on the assessment. The BES-Net Trialogues and a series of workshops taking place for the Asia-Pacific regional assessment are examples of post-assessment knowledge-policy processes that include IPLC.

8.3 Catalyzing the mobilization of knowledge

IPBES authors cannot conduct new research as part of an assessment. IPBES assessments can however catalyze new research, by identifying gaps in knowledge (e.g. ILK in scenario building), or by recommending a focus on new or existing but under-used methodologies (e.g. participatory mapping of biodiversity with IPLCs or community-level monitoring of biodiversity).

Potentially, where networks are in place that are able to respond rapidly, some of this research may take place within the contexts and time frames of an IPBES assessment, and a knowledge gap highlighted early in an assessment can lead to information being produced in time for inclusion in an assessment's later drafts.

More often, such research will take place over the longer term, with the recommendations made in a assessment influencing future research. This could include long-term, in-depth research in the communities of indigenous or local peoples, which could start to generate the types of knowledge and monitoring that would be useful for future assessments, and which would be of benefit to IPLCs themselves.

The technical support unit and task force for knowledge and data will oversee this process for IPBES assessments, including working to bring gaps highlighted by assessments to the attention of potential research funders.

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ANNEX I: Key ILK questions developed for the global assessment chapters

This annex is taken from the document "Operationalizing 'Indigenous and Local Knowledge and Practices' [ILK] and the role of Indigenous People and Local Communities [IPLC] in the IPBES Global Assessment (GA)." Prepared by Eduardo S. Brondizio and revised 2 May 2017. The full document can be requested from the TSU for ILK.

The questions presented below are ambitious in scope and in analytical complexity, and they can be addressed in different ways. In the original document, each set of questions is followed by an initial set of suggestions of approaches and sources. Authors of each chapter were recommended to discuss each question carefully and, as needed, discuss with the GA's co-chairs a strategy to prioritize their expertise and efforts.

Chapter 1 - INTRODUCTION

Chapter 1 will provide an overview of the three questions outlined in the IPBES approach.

Chapter 2 - STATUS AND TRENDS

Chapter 2 is intended to answer the following questions related to indigenous and local knowledge:

Nature sub-chapter

2.1 What are the patterns in the status and trends of terrestrial ecosystems, freshwater bodies and marine zones whose biodiversity and nature's contributions to people have co-evolved with and have been managed by IPLC? What are the most important (positive and negative) trends in biodiversity and nature's contributions to people managed by IPLC?

2.2 What major ecosystems and watersheds, and how much of biodiversity (including agrodiversity, semi/domesticated animals) lies on landscapes managed by IPLC, within and outside protected areas, in different types of property systems and institutional arrangement?

2.3 What are the distinctive views of IPLCs regarding nature, such as the view expressed in IPBES conceptual framework, such as Mother Earth or Systems of Life?

Drivers sub-chapter

2.4 What are the main economic, political, environmental/climate and social changes and drivers negatively and positively affecting nature and nature's contributions to people in areas occupied and managed by IPLC? How are these changes influencing local livelihoods and the ability of IPLCs to manage and conserve nature and nature's contributions to people?

In order to operationalize the above three questions, the following sub-questions are provided. These questions should be approached in collaboration with chapter 6:

i. What percentage of 'protected areas' are occupied by IPLC, particularly indigenous peoples, during the last 50 years?
ii. What percentage of 'protected areas' required the displacement of IPLC? And, what percentage of 'protected areas' enabled the recognition of land rights for IPLC?

iii. What are the social and economic characteristics of IPLCs living within protected areas (especially regarding poverty condition, social indicators such as education and health)?
iv. What have been the positive and negative impacts of 'marine protected areas' (MPAs) on IPLCs (fishing villages) whose livelihood depend on?
v. Under which conditions do local and national level institutions (e.g., conservation policies, decentralization and forestland property arrangements, resource concessions, informal and formal programs, etc.) align to promote or undermine conservation of biodiversity outside of protected areas?
vi. What are the evidences for the effectiveness of management strategies involving IPLCs such as associated with biocultural approaches, co-management systems, customary right-based approaches, among others?

2.5 How have local, national, and international level institutions and policy tools involving IPLCs contributed to the conservation of nature and sustainable provision of nature's contributions to people over the last fifty years?

2.6 How the recognition and implementation of indigenous peoples' rights at the national level is affecting nature and nature's contributions to people in areas managed by IPLC?

Natures contributions to people sub-chapter

2.7 What are the contributions of ILK to the protection of biodiversity, ecosystems and its processes, and provision of NCP in rural and urban areas? And in what ways do these contributions impact the livelihoods of poor sectors of society both urban and rural?

2.8 How are changes and drivers affecting IPLC, ILK and how are these affecting the management of biodiversity and NCP relevant to local and urban populations? What are the positive and negative impacts of these changes upon poor sectors of society?

2.9 What is the role of collective action of IPLCs in the provision of NCP?

Chapter 3 - AICHI TARGETS AND SDGs

Questions in chapter 3 should explicitly build upon analyses provided by chapter 2, questions 2.1 to 2.6, but focus on the indicators most relevant to the Aichi targets that are more directly related to ILK: 7, 11, 13, 16, 18, and 19 (see below).

A suggested two-fold approach: First, each Aichi Target and selected SDGs (to be defined) should be evaluated in relation to the three questions below. Second, each Aichi target or SDG evaluated is illustrated with, at least, two examples (if possible showing contrasting stories). It would be useful to have one of the examples focusing on large regional populations/social groups, for instance, Amazonian Indians, Tibetan Plateau pastoralists, African pastoralists, farmers managing highly diverse landscapes, IPLCs affected by large scale projects and commodity extraction, etc.

3.1 What have been the contributions of ILK to reach Aichi target X?

3.2 How have drivers affecting IPLCs undermined/constrained the attainment of the achievement goals of Aichi target X?

3.3 To what extent are IPLCs recognized, valued, and benefit from their contributions to the Aichi Biodiversity Targets and the Sustainable Development Goals, such as conserving nature, expanding food and energy production, among others?

Chapter 4 - PLAUSIBLE FUTURES: NATURE, NCP and QUALITY OF LIFE

This chapter builds on the data on trends and status presented in chapter 2, including the analysis of underlying drivers and inferences of causality. The chapter should also examine to what extent the identified scenarios are likely to affect the Aichi targets and SDGs goals examined in chapter 3. In particular, the chapter should consider how the results of plausible scenarios should inform a new generation of Aichi targets for 2020-2030.

4.1 What are the potential impacts of plausible scenarios of expanding resource production/extraction (agriculture, mining and oil extraction, husbandry, fisheries, etc), infrastructure networks (energy, roads, markets, etc), and urbanization on biodiversity, agro-diversity, and NCP conserved and managed by IPLC?

4.2. How could strengthening the roles and rights of IPLCs to maintain their territories (based on plausible scenarios of where this has happened) ensure biodiversity and agrobiodiversity is conserved in the face of expanding resource production/extraction?

4.3 How will climate change interact with projected social and environmental changes in their potential impacts on IPLC? What are the consequences of these interactions for the management of biodiversity, agro-diversity and managed species, and NCP in globally relevant regions and [IPBES] units of analysis (e.g., tropical forests, temperate grasslands, coastal zones, marine systems, etc.)?

4.5 If national and international conservation strategies are strongly relying on areas conserved and managed by IPLC, then what are the impacts of changing social (e.g., trends in migration and livelihood changes) and environmental (e.g., resource use, pollution, climate) conditions on the sustainability of these conservation strategies?

> 4.5.1 In particular, how are projected social and demographic trends (e.g., migration, labour arrangements) likely to affect conservation areas (terrestrial, inland waters, and marine) and/or indigenous territories?
>
> 4.5.2 How do the management of nature and NCP by IPLC, particularly in protected areas, may affect their quality of life in coming decades? What implications these 'commitments' have for improving the socioeconomic conditions of IPLC, including poverty eradication, education, and food security?
>
> 4.5.3 What are the implications of plausible scenarios to the definition of the role and contributions of IPLCs to a new generation of biodiversity targets for 2020-2030?

Chapter 5 - SCENARIOS and PATHWAYS TOWARDS SUSTAINABLE FUTURES

This chapter could use as guide similar questions as those in chapter 4, but explicitly change key assumptions and parameters associated with projected trends (e.g., development indicators, different values of nature, market prices, institutional arrangement and property regimes, etc).

5.1 What are potential trade-offs involved in different pathways for reconciling the rights and needs of IPLC, and the resources they manage and depend on, and projected trends/expansion in food, energy, water, and mining production and consumption?

> 5.1.1 How to reconcile economic growth and protection of environmental functions in landscapes/seascapes managed by IPLCs (including protected areas occupied by IPLC)?

5.2 What does it mean to achieve the SDG goals for large sectors of society (e.g., 2-zero hunger, 7-affordable and clean energy, 8-decent work and economic growth, 13-climate action) for IPLCs and their (usually sparsely populated) territories?

> 5.2.1 How to reconcile indigenous and local rights (including resource rights) with these goals?

5.3 What potential institutional arrangements involving IPLCs could contribute to the management and conservation of large-scale and trans-boundary ecosystems and resource systems?

5.4 What are the distinctive views of IPLCs regarding nature, such as the view expressed in IPBES conceptual framework, such as Mother Earth or Systems of Life, and how these can strengthen a more sustainable relationship between nature, NCP and good quality of life? [Follow up on question 2.3]

Chapter 6 - POLICY CHALLENGES, OPPORTUNITIES, and OPTIONS

Chapter 6 should build upon previous chapters to identify relevant contributions of IPLCs to the management and conservation of biodiversity and NCP at a global scale, and factors and conditions undermining these contributions, as well as impacting the future of the environment and quality of life of IPLC.

See notes in chapter 2 regarding cross-cutting questions with chapter 6.

6.1 Based on evidences from the past 30 years, what has been the effectiveness of policy instruments and institutional arrangements aimed at enhancing the contribution of IPLC, within and outside protected areas, to national, regional and global biodiversity conservation strategies, and how they governance systems have evolved?

6.2 What possibilities exist for improving the social-economic conditions, resource rights, and benefit sharing of IPLC, contributing to the conservation and management of biodiversity, ecosystem restoration, and NCP, and what are the potential costs of not doing so?

> 6.2.1. What policy opportunities exist for supporting local collective action and institutional arrangements to promote conservation and management of biodiversity and NCP outside protected areas?

6.3 What are the impacts of climate change mitigation and adaptation policies (particularly carbon compensation schemes, joint mitigation and adaptation approaches, and expanding renewable energy production) and restoration programs upon IPLCs and what are the points of synergy and conflict with conservation and management of biodiversity and NCP?

6.4 What has been the effectiveness of multi-lateral agreements and ensuing national policies to protect ILK (e.g., CBD, Nagoya Protocol, Paris Agreement) and the ability of IPLCs to manage and conserve biodiversity and NCP, particularly transboundary resources?

6.5 What are the impacts of models of commodification of nature in the systems of life of IPLCs (particularly payment of environmental services – PES)? What are alternative models and policies to markets of ecosystem services, particularly based on the strengthening of rights of nature and peoples, and duties of societies with nature?