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PRACTICAL GUIDELINES ON WORKING WITH INDIGENOUS AND LOCAL KNOWLEDGE IN NATIONAL ECOSYSTEM ASSESSMENTS

Introduction

Many indigenous peoples and local communities make vital contributions to the conservation of biodiversity and ecosystems. Many indigenous peoples and local communities also hold detailed indigenous and local knowledge (ILK) that can inform a national ecosystem assessment, including on status and trends of ecosystems and biodiversity, drivers and impacts of change, as well as management and policy options.

When working with ILK, a key goal is to ensure an equitable and respectful dialogue between knowledge systems (e.g., science and ILK), where the value of each knowledge system is recognised in its own right and where misrepresentation or misunderstanding of ILK is minimised. The [Multiple Evidence Base Approach](#) offers a model to help think this through for the stages of an assessment process.

General Principles for Working with ILK in National Ecosystem Assessments

- As much as possible, all work with ILK should be based on **equitable sharing and joint learning** across knowledge systems and cultures.
- ILK is largely oral and may not have been documented. It is therefore usually important to **engage directly with knowledge holders** when working with ILK. Written sources can be useful, but they may not convey the complexity or precision of ILK.
- Engagement with ILK will be more fruitful if **indigenous peoples and local communities participate in all stages** of national ecosystem assessments, from scoping, to evaluation (i.e., knowledge synthesis and writing), to use of the assessment findings for developing and implementing related policies, programmes, and projects.
- Recognising and working with **traditional decision-making and governance structures, institutions and communication protocols can greatly enhance work with ILK** and bring additional benefits to communities through capacity building and enhanced respect for traditional systems of governance. This **may take time**, and national ecosystem assessments schedules may need to account for this.
- Indigenous peoples and local communities may need to be **adequately resourced and supported** to fully participate in national ecosystem assessments. Capacity building with community organisations and indigenous peoples and local communities' networks is key to strengthening their participation.

- Where possible, indigenous peoples and local communities should be facilitated to share their ILK using their **preferred language(s)**. For instance, [Participatory 3-dimensional modelling](#) is conducted, largely using local languages. Using the original language allows greater technical precision and diverse conceptual frameworks.

Building Respectful Relationships

- Effective engagement of indigenous peoples and local communities needs a relationship built on **trust and respect**, where indigenous peoples and local communities are **comfortable and feel able to share their knowledge and ideas as appropriate**. Time may need to be invested in building these relationships.
- Consideration of **indigenous peoples and local communities' histories** (including historical injustices), **cultures, contexts, contemporary social dynamics and diversity** will be important to fully establish trust and mutual understanding. Historical circumstances impact indigenous peoples and local communities today, including on their lifestyles, degrees of vulnerability/resilience, knowledge systems and values, and willingness to share their knowledge and time.
- In some contexts, indigenous peoples and local communities may be subject to negative stereotypes and prejudice. It is important that the **assessment team is sensitised** to use appropriate language, be respectful, and follow indigenous peoples and local communities' protocols, remembering for example, that an elder who cannot read or write may have sophisticated knowledge that exceeds that of people with university educations. If a community refers to itself in one way, but a pejorative term is in use in the dominant society, it is better to acknowledge the term used by the community itself. If this is difficult to pronounce, the effort to try is already a sign of goodwill.
- Gender norms are different in different cultures. In some cultures, environmental knowledge is held differently between men and women, and across different generations. Approaches within a national ecosystem assessment should **aim to include men and women, and people of all ages**. Appropriate spaces could be created for men and women to speak and share their knowledge, analysis and concerns.

Free Prior and Informed Consent

The principle of free, prior and informed consent (FPIC) is a key consideration when working with ILK:

- **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** means that research on ILK should not be initiated until the consent process has been completed. It requires seeking consent or approval sufficiently in advance of any authorisation to access ILK, respecting the customary decision-making processes in accordance with national legislation and time requirements of indigenous peoples and local communities.¹
- **Informed** implies that information is provided that covers relevant aspects, such as: the intended purpose of the access to ILK; 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.¹
- **Consent** or approval is the agreement of the indigenous peoples and local communities who are holders of ILK or the competent authorities of indigenous peoples and local communities, as appropriate, to grant access to their ILK to a potential user and includes the right not to grant consent or approval.¹

Informed consent or approval process depends on consultation and full and effective participation of indigenous peoples and local communities. Assessment teams should be sensitive about how consent is given. The aim is not to get one person or one institution to give consent, when others in the community are unaware or wary of the initiative. The assessment should strive for broad understanding and awareness of the assessment in respective indigenous and local communities. Author teams should also be aware that existing materials about indigenous peoples and local communities may not have used FPIC principles. Relevant communities can be consulted around the use of such materials, or dialogue workshops can be used to help ensure that indigenous peoples and local communities give consent to the way such materials are used or represented in a national ecosystem assessment.

STEPS FOR ENGAGING INDIGENOUS PEOPLES AND LOCAL COMMUNITIES AND ILK IN THE ASSESSMENT PROCESS

A) Scoping Stage

Identification of Indigenous Peoples and Local Communities

The identification of indigenous peoples and local communities to be involved in a national ecosystem assessment is a critical process that can take place during the [scoping stage](#). In order to do this, it is important to understand the diversity of communities, knowledge systems, livelihoods and language groups in the relevant country or area. Considerations when identifying which indigenous peoples and local communities could participate in a national ecosystem assessment include:

- If there are groups that are recognised by the national government as 'indigenous', 'local', 'traditional', 'ethnic minority' or other designations that indicate their distinctiveness;
- If there are communities which have distinct languages, natural resource-based livelihood systems and/or historical or long-term use of an area or resource; and,
- The focus of the assessment, including ecosystems, locations or themes to be assessed, for example a focus on wetlands, national parks or pollinators might determine which communities should be engaged.

Regional- or national-level organisations of indigenous peoples and local communities or other institutions working broadly with indigenous peoples and local communities could be engaged to support this process.

Identification of Key Partners and Intermediaries

Once the indigenous peoples and local communities who should be involved in a national ecosystem assessment have been determined, the assessment team could then identify key partners and intermediaries. These could include:

- Community leadership and community organisations, taking into consideration gender dynamics and how knowledge is held and shared throughout the community;
- National or regional NGOs, indigenous peoples and local communities' organisations and networks, or faith-based groups; and,
- ILK scholars/researchers, universities or government departments who have worked with the target communities.

Key partners and intermediaries could be critical actors especially where there is limited time to develop **trusting relationships** with indigenous peoples and local communities. In addition, key partners and intermediary organizations could help to identify ILK holders and scholars who are recognized and acknowledged by the indigenous peoples and local communities that will be involved in the national ecosystem assessment.

Scoping Workshop(s)

Scoping workshop(s) with indigenous peoples and local communities could take place early in the scoping process. Key objectives could include:

1. Introducing indigenous peoples and local communities to the assessment process and building trust, ownership and relationships;
2. Co-selection of indigenous peoples and local communities' representatives, communities, partners and intermediaries for the national ecosystem assessment;
3. Co-design of the rationale for undertaking the assessment, key ILK research or policy questions to be addressed, and suggested uses within policy and planning processes; and,
4. Co-design of methods, schedules and communication strategies.

This could also be an iterative process that evolves as it proceeds, with an initial scoping workshop for points 1 and 2, followed by **framing workshop(s)** that focuses more on points 3 to 4. Participants could include key ILK authors of the national ecosystem assessment (if they have already been selected) and ILK holders and scholars, with attention to regional and gender balance. In identifying ILK holders, it is important to note that many ILK holders may not be visible at first in a community, while official, local and traditional leaders are not necessarily holders of ILK. Ideally, indigenous peoples and local communities should nominate their own representatives.

Workshops are recommended to be held within the territories of indigenous peoples and local communities where possible.

Author Selection

In [building the author team](#) it is important, as much as possible, to include authors with prior experience working with ILK and indigenous peoples and local communities. Authors who are themselves members of indigenous peoples and local communities can also enhance work with ILK both as authors, reviewers and ILK workshop organizers.

It is recommended to recruit ILK lead authors to ensure that ILK is expansively synthesized and woven into all chapters of a national ecosystem assessment. ILK coordinating lead authors and contributing authors could also play a critical role. ILK authors could be selected through nomination by indigenous peoples and local communities' groups and partners or through an online call for ILK authors and reviewers.

ILK Task Force

The indigenous peoples and local communities' representatives, partners and intermediaries selected through the identification and mapping process and the scoping workshop could be invited to constitute an ILK task force that supports the national ecosystem assessment, along with ILK lead authors. The constituted ILK task force should observe gender balance and ensures substantive representation of ILK holders and scholars. The task force could also extensively engage broader indigenous peoples and local communities' networks through participatory mechanisms including community-led assessment research such as walking workshops, ILK dialogue workshops and participatory mapping.



B) Evaluation Stage

ILK can contribute information on conceptualisation, status and trends of ecosystems, drivers and impacts of ecosystem change, plausible future scenarios, management and policy options. However, a number of steps may be needed in order to effectively weave this knowledge into a national ecosystem assessment. The **Multiple Evidence Base approach** could serve as a model.^{2,3,4}

The Multiple Evidence Base Approach

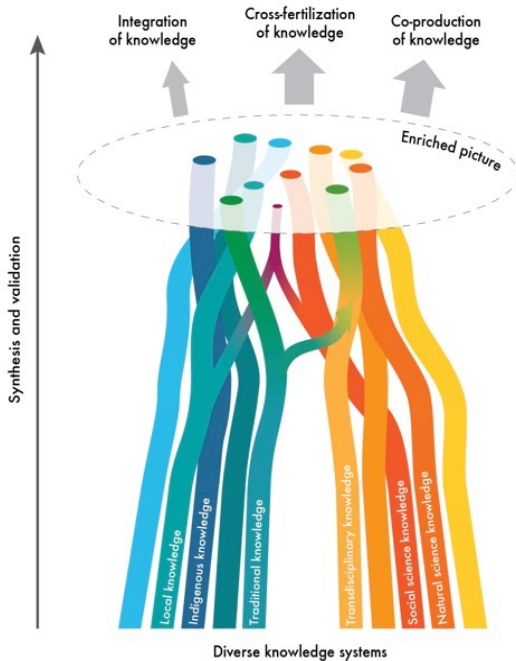


Figure 1. Detail of the Multiple Evidence Base approach, showing that different strands of knowledge can be woven together. **Source: Tengö et al. (2014).**

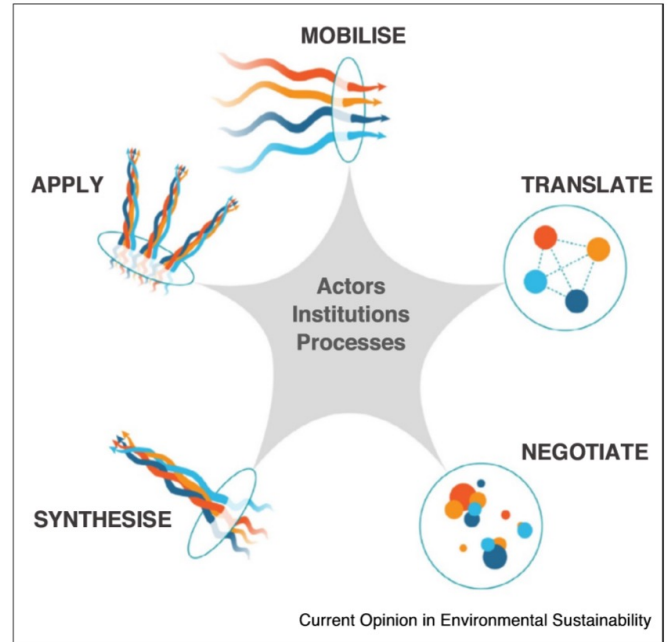


Figure 2. Process of the Multiple Evidence Base approach, showing the 5 steps for weaving these strands of knowledge. **Source: Tengö et al. (2017).**

The evaluation stage of a national ecosystem assessment can aim to follow the [Multiple Evidence Base approach](#), which aims to effectively facilitate engagement with different knowledge systems simultaneously whilst maintaining the integrity of each, rather than seeking to merge or integrate knowledge systems (Figure 1). The approach, as described in Tengö et al. (2017), follows five steps (see figure 2):

- Mobilise
- Translate
- Negotiate
- Synthesise
- Apply

i. Mobilising Knowledge

Mobilise means to bring out and articulate ILK in a form that can be shared with others. This can mean moving from tacit knowledge to explicit articulation and expression.³

Within communities, some ILK may be written or transmitted verbally. However, much ILK is conveyed and understood through practices rather than verbal or written communication. It is also dynamic and may have internal variances. As a result, it can be challenging to access this knowledge in forms that are compatible with the needs of an assessment, and there is a risk of diminishing or misrepresenting ILK in the process. The national ecosystem assessment could adopt a variety of methods to enable effective, inclusive and respectful knowledge mobilisation. Methods of engaging ILK can include:

- **Authors**, including ILK holders and scholars who could write chapters or portions of text. In some cultures, it is considered bad behaviour to emphasise that you are the holder of expert knowledge. Social harmony is influenced by discretion. It would be inappropriate to pressure such knowledge holders to divulge ILK without understanding the social costs. Also, an individual or a spokesperson may share collectively owned ILK, in such cases, it would be essential to create space for **community authorship** where a community is referenced as the author as opposed to an individual.

- **Literature review**, with attention to peer-reviewed and also grey literature, including community reports, songs, videos, artworks or other forms of knowledge expressions. Such material could be invited through a call for contributions to the assessment emphasizing such diverse knowledge contributions.
- **Primary research**, including participatory mapping, dialogue workshops (as those mentioned above for framing and scoping), ecological calendars, yarning/storytelling and interviews. Photography, audio and video recordings could serve as options for documenting tacit ILK.

ii. Translation

*Translate implies interactions between ILK, science and other knowledge systems, to enable mutual comprehension of the shared knowledge.*³

Either alongside knowledge mobilisation or after it has occurred, there is a process of translation so that the knowledge can be used in a national ecosystem assessment. This must be done with care and respect and an emphasis on mutual learning and reciprocal translation between knowledge systems. This can be greatly facilitated by assessment authors with experience working with ILK, by the ILK task force, and/or through the National Biodiversity Platform (NBP). Dialogue workshops also provide a key space for translation. As much as possible, representatives of indigenous peoples and local communities should be involved in making sure that ILK is not misrepresented or misunderstood during this process.

iii. Negotiation/ILK Validation

*Negotiate means joint assessment of convergence, divergence and conflicts across knowledge contributions, illustrated above by the combination of some coloured strands (convergence), whereas others may remain contradictory.*³

Constructive and equitable exchange between knowledge systems require recognition that ILK is legitimate within its own context, and has its own systems of logic and validation as illustrated by Figure 1. It is not recommended to subject ILK to validation by scientists or outside researchers, as this can set science as the arbitrator of what is 'right' or 'wrong' within ILK. Instead, as far as possible, if validation of ILK is deemed useful, it should be undertaken by indigenous peoples and local communities themselves within in-situ settings. ILK dialogue workshops can serve as mechanisms for indigenous peoples and local communities to validate the findings in the assessment, particularly during review periods.

iv. Synthesis

*Synthesis concerns shaping a broadly accepted common knowledge base that maintains the integrity of each knowledge system rather than 'integrating' them into one knowledge system.*³

It is important that a synthesis includes converging knowledge, as well as potentially diverging knowledge and tensions (Figure 2). Where there are different conclusions reached by ILK and science, these can sit together, with differences acknowledged. Where possible, ILK can be woven throughout the assessment text, although boxes, case studies or a specific chapter may help to bring out key issues specific to ILK or indigenous peoples and local communities. In the assessment technical report and summary for policymakers, the contributions of indigenous peoples and local communities should be fully acknowledged. Wherever ILK is used, it is good practice to clearly highlight that the information has come from ILK and, if appropriate, the community involved, noting that some knowledge may be confidential so may require care in the way that it is represented.

Other considerations during evaluation

National Ecosystem Assessment Draft Review

Drafts of the assessment can be opened for review, and indigenous peoples and local communities should be facilitated to take part in this important process, including through dialogue workshops where the drafts are discussed between authors and indigenous peoples and local communities. Also, ILK holders and scholars could serve as reviewers. The review process can serve to enhance translation, negotiation/validation, and synthesis, as well as identifying gaps from the perspectives of indigenous peoples and local communities.

Data Management

Data management and storage should wherever possible account for FPIC. It is also good practice for data derived from ILK to be made available and sent back to the communities concerned, considering privacy and confidentiality. It is recommended to have a digital backup of documented ILK.

C) Use of the Assessment Findings Stage - Apply

Apply means to use this broadly accepted common knowledge to make decisions and take actions, at different scales, and to reinforce and feedback into the knowledge systems.³

Wherever possible, indigenous peoples and local communities should also be fully involved in the co-development and implementation of policies, strategies, action plans, projects, programs and other activities related to the assessment findings. This can help develop locally appropriate and responsive biodiversity conservation policies and actions connected to local needs, issues and priorities. One way of approaching this could be through science and ILK, policy and practice dialogue workshops, modelled on the [BES-Net Triologue process](#). Also, meaningful and inclusive engagement of indigenous peoples and local communities could strengthen their interest and relevance in implementing/managing conservation projects and participating in future assessments and knowledge co-production initiatives.

Communication and dissemination of results

Communication and engagement will be important at all stages of a national ecosystem assessment, particularly when communicating, disseminating and using the assessment findings. Dialogue workshops, social media, community radio, and community leadership and organisations, among many others, all offer potential avenues for communication and dissemination of findings. Using local languages may greatly enhance communication efforts. Strategies for dissemination and communication can be determined collaboratively with the indigenous peoples and local communities involved in the assessment processes.



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