Report

Review of the inclusion of Indigenous and local knowledge in IPBES functions and deliverables

Developed by the IPBES task force and technical support unit for Indigenous and local knowledge

Published 21 August 2023

Acknowledgements

The task force on Indigenous and local knowledge gratefully acknowledges the members of Indigenous Peoples and local communities and IPBES authors who shared their knowledge and experiences by responding to the surveys sent out as part of this review:

Francisco Ramiro Batzin, Eduardo Brondizio, Uttam Babu Shrestha, Joji Cariño, Q"apaj Conde Choque, Florence Daguitan, Álvaro Fernández-Llamazares, Viviana Figueroa, Kathleen Galvin, Guadalupe Yesenia Hernández Márquez, Mariaelena Huambachano, Edna Kaptoyo, Esther Katz, Lelani Mannetti, Renato Azevedo Matias Silvano, Zsolt Molnár, Lucy Mulenkei, Tuyeni Mwampamba, Pua'ala Pascua, Sherry Pictou, Kamal Kumar Rai, Hannah Longole, Victoria Reyes-García, Aibek Samakov, Viacheslav Shadrin, Polina Shulbaeva, Ruth Spencer, Rodion Sulyandziga and Joram Useb.

Report compiled by:

Task force members:

Simone Athayde, Joji Cariño, Patricia Howard and Adriana Flores

Technical support unit:

Peter Bates, Félicie François

With review and comments by:

Task force members:

Ana María Hernandez Salgar, Catherine Febria, Zemede Asfaw, Eduardo Brondizio, Viviana Elsa Figueroa, Jinlong Liu, Zsolt Molnár, Sherry Pictou, Kamal Kumar Rai and Vyacheslav Shadrin

Table of contents

EXEC	UTIVE SUMMARY	5
A. Int	troduction	5
B. M	ethods	6
C. Ov	verview of methods used in IPBES assessments	7
D. Su	rveys with Indigenous Peoples and local communities and assessment authors: main conclus	ions8
D.1.	What works well	8
D.2.	Challenges	8
D.3.	Ways forward	10
E. Su	rveys with Indigenous Peoples and local communities: visualizations	12
F. Su	rveys with authors: visualizations	15
G. Na	ational Ecosystem Assessments and Indigenous and local knowledge	19
H. Co	onclusion	20
REPO	PRT	21
1. Int	troduction	21
2. M	ethods for the review	21
3. M	ain conclusions	23
3.1	Overview of assessment methods	23
3.2 for po	Overview of sentences referring to Indigenous Peoples and local communities in the summ	
3.3	Surveys with Indigenous Peoples and local communities: main conclusions	25
3.3.1	What works well	25
3.3.2	Challenges	25
3.3.3	Ways forward	26
3.4	Survey with assessment authors main conclusions	26
3.4.1	What works well	26
3.4.2	Challenges	27
3.4.3	Ways forward	28
4. De	tailed results of the surveys	29
4.1	Survey for IPLCs: results	29
4.1.1	General information	29
4.1.2	Participation in IPBES activities	30
4.1.3	Communication and information sharing	31

4.1.4	Assessment methods for working with ILK and IPLCs	34
4.1.5	Free, prior and informed consent (FPIC)	38
4.1.6	Use of different IPBES assessment products by IPLCs	40
4.1.7	IPLC use and interest in themes and topics in assessments	42
4.1.8	Impacts of assessments on policies and actions related to IPLCs	44
4.1.9	ILK and IPLC participation in other IPBES activities	46
4.1.10	IPLC participation in the IPBES plenary	47
4.1.11	Diversity	49
4.1.12	Overarching comments / what should IPBES be aiming for in the coming years?	50
4.2	Surveys for assessment authors: results	52
4.2.1	General information	52
4.2.2	Assessment scoping	53
4.2.3	Conceptualization of key themes	55
4.2.4	Methods: Transdisciplinary and interdisciplinary author teams for working with ILK	58
4.2.5	Methods: IPLCs as authors	59
4.2.6	Methods: Contributing authors	61
4.2.7	Methods: Review of peer-reviewed literature	62
4.2.8	Methods: Review of "grey" literature and other materials	64
4.2.9	Methods: Call for contributions	66
4.2.10	Methods: Dialogue workshops	67
4.2.11	Methods: External review process	70
4.2.12	Methods: Overarching recommendations for ways forward	71
4.2.13	Resources and support: Resource documents	73
4.2.14	Resources and support: ILK liaison group discussions	74
4.2.15	Resources and support: The ILK task force and technical support unit	76
4.2.16	Resources and support: Co-chairs and Coordinating lead authors	77
4.2.17	Resources and support: MEP, IPBES secretariat and assessment technical support units	78
	Resources and support: Other resources or sources of support for work with ILK identified by	
-	dents	
	ILK in the final assessment chapters	
	Scenarios, policymaking and rights and justice	
	Knowledge gaps	
	Representation of ILK in the Assessments	
4.2.23	ILK in the summary for policymakers	88

4.2.24	Post-assessment activities	89
4.2.25	Impact of the assessments and their summaries for policymakers	90
4.2.26	Overarching comments on work with ILK and participation by IPLCs in IPBES assessments	91
4.2.27	What should IPBES be aiming for in the coming years in terms of working with ILK?	92
5. Natio	onal ecosystem assessments and Indigenous and local knowledge	92
6. Conc	lusion	94

EXECUTIVE SUMMARY

A. Introduction

As part of the workplan for the intersessional period 2022–2023, set out in annex IV to decision IPBES-9/1, the Plenary requested the task force on Indigenous and local knowledge (ILK) to prepare a review of ILK in IPBES as follows:

Review of the inclusion of ILK in IPBES functions and deliverables, with a focus on the Global Assessment Report on Biodiversity and Ecosystem Services (Global Assessment), the Thematic Assessment Report on the Sustainable Use of Wild Species (Sustainable Use Assessment) and the Methodological Assessment Report on the Diverse Values and Valuation of Nature (Values Assessment), and other activities since 2019, including proposals for strengthening the implementation of the approach to recognizing and working with ILK in IPBES, and preparation of a brief report, for consideration by the Plenary at its tenth session, with regard to:

- (a) The ways in which ILK has been included in IPBES products, as well as in national and regional assessments that are based on IPBES methodologies;
- (b) Enhancing methodologies for working with ILK;
- (c) Enhancing the participation of Indigenous Peoples and local communities (IPLCs) in IPBES.

The following summary and report present the findings of the work of the task force on ILK from this review.

B. Methods

Methods for the review of the inclusion of ILK in IPBES were developed by the task force on ILK during a series of meetings and email exchanges. Methods used in the review included:

A brief desk review of assessment methods employed in all completed assessments.

Surveys:

- Surveys were sent to IPLCs who have participated in different ways in IPBES activities (unless they had participated as authors, in which case they were sent the survey for authors, described below), requesting their feedback on aspects of the processes for working with ILK and methods for enhancing participation by IPLCs. The survey was partially or fully completed by 16 members of IPLCs.
- Surveys were sent to authors of the Global, Values and Sustainable Use Assessments, requesting their feedback on aspects of the process for working with ILK and methods for enhancing participation by IPLCs. The survey was completed partially or fully by 18 authors.
- The Biodiversity and Ecosystem Services Network (BES-Net)¹ was invited to provide a brief analysis of methods used in the national ecosystems assessments that are coordinated through the BES-Net project and to provide an overview on how these methods connect to the IPBES approach and methodologies.

¹ BES-Net is jointly implemented by United Nations Development Programme (UNDP – hosts BES-Net and leads multi-stakeholder engagement and Trialogues), The United Nations Environment Programme's Wildlife Conservation Monitoring Centre (UNEP-WCMC – hosts the National Ecosystem Assessment Initiative) and UNESCO (leads the Indigenous and local Knowledge support unit).

C. Overview of methods used in IPBES assessments

IPBES methods for working with ILK have developed over the course of the assessments, as shown in table 1 below. The approach to recognizing and working with ILK in IPBES was approved by IPBES 5 in 2017.

Table 1: Methods implemented to work with IPLCs in the IPBES assessments to date.

IPBES assessment	Completion date	Scoping dialogue	ILK liaison group	Dialogue workshops ²	Call for contributions	Materials for IPLCs produced from assessment ³
Pollinators, Pollination and Food Production	2016	No	No	1	No	No
Four Regional Assessments of Biodiversity and Ecosystem Services	2018	No	No	1-2 per assessment	No	No
Assessment of Land Degradation and Restoration	2018	No	No	No	No	No
Global Assessment	2019	No	Yes	1	Yes	Yes
Sustainable Use Assessment	2022	Yes	Yes	3	Yes	Yes
Values Assessment	2022	Yes	Yes	3	Yes	Yes

² Lasting one day or more, organized specifically for the assessment.

³ This refers to materials produced for Indigenous Peoples and local communities by IPBES. It should also be noted, however, that materials were produced by CSIRO and SwedBio for the Pollinators assessment (see https://research.csiro.au/multipleknowledges/category/posters/), and by BES-Net for the land degradation assessment (see https://www.besnet.world/back-to-our-roots-how-land-degradation-particularly-affects-indigenous-peoples-and-local-communities/), among others.

D. Surveys with Indigenous Peoples and local communities and assessment authors: main conclusions

D.1. What works well

Both members of IPLCs and assessment authors noted many positive aspects of IPBES work with ILK and IPLCs, including:

- IPBES is innovative and groundbreaking in its work with ILK and IPLCs in global-scale assessments and its openness to diverse voices and types of knowledge at the global level;
- ILK and participation by IPLCs make increasingly significant contributions to IPBES
 assessments, as noted by IPLCs and authors, enhancing the findings and relevance of the
 assessments;
- Dialogue workshops are recognized by both IPLCs and authors as particularly important and effective for bringing ILK into assessments;
- Transdisciplinarity of author teams, the work of ILK liaison groups, literature reviews, dialogue workshops, calls for contributions and engagement of contributing authors have seen significant improvements with successive assessments;
- Free, prior and informed consent procedures and processes are noted to be very well developed around the dialogue workshops;
- ILK is included in increasingly diverse ways in assessments, including in graphics, images, artworks and poems;
- The approach to recognizing and working with ILK in IPBES, the methodological guidance to implement the approach, the Multidisciplinary Expert Panel, the task force on and technical support unit for ILK and other actors within IPBES, including the secretariat, serve important roles;
- IPLCs are using IPBES assessments to support their work and goals at international, national and local levels. Summaries for policymakers and documents and webinars produced specifically for IPLCs are particularly useful.

D.2. Challenges

Respondents also noted ongoing challenges:

- Dynamics and methods within author teams were highlighted as a key challenge:
 - Within assessments, ILK is often interpreted through a scientific lens, using scientific frameworks and methods, by authors who are not members of IPLCs, which limits the ways that ILK can be understood or conveyed;
 - Within an assessment chapter, authors working with ILK are often challenged regarding the methods and approaches they use, and need to justify these to

- other lead authors or to coordinating lead authors. This can increase the workload for these authors, and may deter participation, particularly by authors from IPLCs;
- Numbers of authors working on ILK in chapter teams are often low, making it difficult to carry out extensive reviews of literature and other materials or to conduct all relevant activities related to ILK. This can mean that:
 - "Grey" literature and other sources of knowledge may remain underexplored;
 - The submissions received in response to a call for contributions may not be processed as efficiently as expected and not be included into the assessment in a systematic way;
 - Engagement and follow-up with contributing authors and dialogue workshop participants may be reduced;
- Insufficient engagement and interlinkages between chapters of an assessment can lead to a lack of a coherent ILK narrative. Often, ILK expertise is also dispersed across an assessment;
- Language barriers can prevent access to and use of many materials of relevance to the assessments, as much ILK is documented in languages other than English.

While significant progress was recognized, participation by IPLCs was also highlighted as an ongoing challenge:

- Due to the predominance of scientific frameworks, quantitative approaches and English as the main language, few members of IPLCs apply to participate in assessment teams as authors, which greatly limits the ways ILK can be included in assessments;
- Funding and support for participation in IPBES processes is a major challenge, as many IPLCs are not supported by institutions that would allow them to use a proportion of their time for IPBES work, for example as authors but also less time-consuming roles such as reviewing draft materials;
- Ineligibility for travel support of experts from the Western Europe and Others Group countries represents a major barrier to participation by IPLCs from these countries, including as authors, task force members or dialogue workshop participants;
- Modes of participation by IPLCs in the Plenary are very limited.

Communication and outreach were also recognized as ongoing challenges:

- For many IPLCs, knowledge of IPBES is very limited;
- There can be a lack of clarity on how the input from IPLCs, including the outcomes of the dialogue workshops and related free, prior and informed consent processes, and the

- work of contributing authors, is used in the development of the chapters and summaries for policymakers by author teams;
- Work with ILK and IPLCs within other functions of IPBES is underdeveloped or unknown to many IPLCs;
- The completed IPBES assessments may not reach many IPLCs at local levels.
- A final challenge highlighted by many respondents is a lack of uptake of IPBES
 assessment findings at national levels, with few clear impacts on governments and
 business and industry.

D.3. Ways forward

Respondents suggested different ways to enhance IPBES work with ILK and IPLCs:

- Continuing to explore ways to enhance methodologies by which ILK can be reflected in IPBES assessments directly by IPLCs, including:
 - Exploring different methodologies for addressing ILK in an assessment, including methodologies based on techniques and methods drawn from the traditions and knowledge systems of IPLCs;
 - Greater use of other ways of reflecting knowledge, including videos, pictures, audio records, artworks and rituals;
 - Enhancing dialogue workshops and connections to communities;
 - Developing a dedicated chapter on ILK in each assessment;
 - Initiating an entire assessment based solely on ILK;
- Enhancing the capacity of IPLCs to participate in assessment processes, including by:
 - Enhanced networking with organizations of IPLCs and scholars from IPLCs to increase interest and knowledge around how to participate in IPBES;
 - Creating advisory groups of IPLCs to each assessment;
 - Capacity-building with IPLCs, with a particular focus on youth and fellows, on how to participate as authors and how to develop case studies and contributions;
 - Identifying sources of financial support for participation by IPLCs, including those from Western Europe and Others Group countries; and
 - Enhanced attention to local communities, which tend to be less represented in dialogues and other activities.
- Enhance the expertise on ILK in each chapter, including by:
 - Ensuring that at least one coordinating lead author of each chapter has expertise on ILK, and that all coordinating lead authors are open to the idea of working

- with ILK, as they play a crucial role in ensuring effective work with ILK in a chapter;
- Ensuring that each chapter has at least one scholar from Indigenous Peoples and local communities or one expert on ILK; and
- Enhancing efforts at capacity-building throughout author teams and uptake of the approach to recognizing and working with ILK and the methodological guidance to implement it by all authors, so that ILK is well supported even by those authors who are not directly working with it.
- Enhance communication, engagement and uptake so that Indigenous Peoples and local communities will use IPBES products, including by:
 - Enhanced communication with participants (e.g., participants in dialogue workshops or the call for contributions) during the assessment process so they can see how their inputs are influencing the development of assessments;
 - Enhancing translation and dissemination of IPBES products;
 - Enhancing follow up after an assessment is completed, and tracking of impacts;
 - Enhancing efforts to build networks and connections with Indigenous Peoples and local communities' organizations at international, national and sub-national scales.
- Enhance participation in other aspects of IPBES work, including:
 - Enhance participation of Indigenous Peoples and local communities in Plenary sessions; and
 - Enhance work with ILK and Indigenous Peoples and local communities particularly around capacity-building, policy support and knowledge generation catalysis.
- Develop more concrete and strategic steps to enhance the uptake of IPBES findings by governments and business and industry groups, as well as other stakeholders.

E. Surveys with Indigenous Peoples and local communities: visualizations

The following tables show average median responses from members of IPLCs to different questions within the survey. Graphs use the acronyms ILK: Indigenous and local knowledge, and IPLCs: Indigenous Peoples and local communities.

Table 2: Median ratings by respondents from IPLCs of different aspects of work with Indigenous and local knowledge (ILK) and participation of IPLCs in IPBES

Aspects of work	Number of			Median rating			Number of respondents
with ILK and IPLC participation in IPBES	respondents who gave a rating	not at all	poor	Neither good nor bad	good	very good	responding "I do not know"
ILK and IPLCs in scoping processes	15				х		1
IPLC participation in assessments	14				х		0
ILK in assessments	15				х		0
Free, prior and informed consent	14				х		1
IPLC participation in the plenary meetings	11			х			3
Diversity of IPLC representations	14				х		0

As median responses relating to aspects of work with ILK and IPLC participation in IPBES, IPLCs rated as "good": "participation of IPLCs and work with ILK in scoping processes" (ILK and IPLCs in scoping processes), "participation of IPLCs in assessments", "work with ILK in assessments", "free, prior and informed consent processes", and "diversity of representation of IPLCs in IPBES activities". The median response for "Participation by IPLCs in the IPBES Plenary meetings" was "neither good nor bad", showing that this is the area where IPLCs perceive the greatest barriers to participation.

Table 3: Median ratings of how useful and interesting respondents from IPLCs find different IPBES assessment products.

	Number of		Number of respondents				
IPBES assessment products	respondents who gave a rating	not at all	slightly	somewhat	useful	very useful	responding "I do not know"
Chapters	14				х		1
Summaries for policymakers	13					х	1
Figures/Graphs	12				х		1
Summary documents for IPLCs	13					х	1
Webinars/Events for IPLCs	14					х	0

As median responses relating to use of and interest in IPBES assessment products, IPLCs reported that the summaries for policymakers, summary documents for IPLCs and webinars and events for IPLCs on the assessment findings were "very useful". The median response for chapters and figures and graphs was "useful", with one respondent noting that few members of IPLCs may be reading or using the chapters.

Table 4: Median ratings by respondents from IPLCs on how well work with ILK and participation by IPLCs is achieved in other IPBES functions, beyond assessments.

	Number of		Number of respondents				
Other IPBES functions	respondents who gave a rating	not at all	slightly	somewhat	well	very well	responding "I do not know"
Policy support	12			х			1
Scenarios	12				х		1
Capacity building	12			х			1
Data management	11			х			2
Knowledge/ Catalysis of new research	12			х			1

As median responses relating to other functions of IPBES, the non-assessment functions of IPBES are seen by respondents from IPLCs as being "somewhat" successful in terms of work with ILK and participation by IPLCs. The exception is work with scenarios, for which the median response was that work with ILK and participation by IPLCs is done "well".

Table 5: Median ratings by respondents from IPLCs on the impact of IPBES assessment on different societal groups.

Impacts of IPBES	Number of		Median rating						
assessments on different audiences/ stakeholders?	respondents who gave a rating	no impact	slight impact	some impact	notable impact	great impact	respondents responding "I do not know"		
IPLCs	15				х		0		
National governments and policymakers	15			х			0		
Funders	15				х		0		
Non-governmental organizations	15				х		0		
Business and industry	15			х			0		
Scientists and researchers	15				х		0		
Other (Local community groups)	1					х	0		

As median responses relating to impacts of IPBES assessments, respondents from IPLCs responded that IPBES assessments have "notable impact" on IPLCs, funders, non-governmental organizations and scientists and researchers. The median response ranking for IPBES assessments was only "some impact" for national governments and policymakers, and for business and industry. Meanwhile, one respondent noted "great impact" on local community groups.

F. Surveys with authors: visualizations

The following tables show average median responses from IPBES authors from the Global, Sustainable Use or Values assessments, to different questions within the survey for authors. Graphs use the acronyms ILK: Indigenous and local knowledge, and IPLCs: Indigenous Peoples and local communities.

Table 6: Median ratings by authors of how effective different approaches and methods function, in terms of working with ILK and enhancing participation by IPLCs in IPBES assessments.

ILK and IPLC processes	Number of respondents			Median rat	ing		Number of respondents
and methods in assessments	who gave a rating	not at all	slightly	somewhat	effectively	highly effectively	responding "I do not know"
Consideration of ILK and participation of IPLCs in scoping documents	13			х			5
Working with IPLCs' conceptualizations	16				Х		0
Transdisciplinary authors teams	15				х		
IPLCs as authors	15			х			
Contributing authors bringing ILK into chapters	14				Х		1
Literature review/ peer- reviewed literature	15				Х		
Literature review/ grey literature and other materials	15			х			
Call for contributions	11			х			4
Dialogue workshop	15					х	1
External reviews and comments	13			х			1

As a median response, authors reported that "dialogue workshops" functioned "highly effectively". "Working with Indigenous Peoples' and local communities' (IPLCs') conceptualizations of key assessment themes", "transdisciplinary authors teams", "contributing authors bringing ILK into chapters", and "review of peer-reviewed literature" all received a median response of functioning "effectively". "Consideration of ILK and participation by IPLCs in developing scoping documents", "IPLCs as authors", "review of grey literature and other materials", the "call for contributions", and "external reviews and comments received" were rated as functioning "somewhat effectively".

Table 7: The median responses of authors on the effectiveness of different resource documents and support systems for working with ILK in IPBES assessments.

IPBES resources and	Number of respondents		Number of respondents				
support systems	who gave a rating	not at all	slightly	somewhat	effective	highly effective	responding "I do not know"
"Approach to working with ILK" document	14				х		2
IPBES methodological guidance on ILK	13				х		2
Author participation in ILK liaison groups	15				х		1
ILK task force and TSU	14					х	1
Co-chairs and CLAs	14					х	0
Assessment TSUs	14					х	0
MEP, secretariat, and other IPBES colleagues	11				х		3

As median author responses, support from the ILK task force and technical support unit (TSU)", "assessment co-chairs and coordinating lead authors (CLAs)" and "assessment technical support units (TSUs)" was rated as "highly effective". The "approach to working with ILK (the document itself)" and the "IPBES methodological guidance on ILK" both received a median response ranking of "effective", as did "author participation in ILK liaison groups", and support from "MEP, the IPBES secretariat and other IPBES colleagues".

Table 8: Median ratings by authors of how well they were able to consider and include ILK within different topics and themes of their assessments.

	Number of						
Themes related to ILK and IPLCs	respondents who gave a rating	not considered	slightly considered	somewhat considered	well covered	covered in great depth	respondents responding "I do not know"
Values, worldviews, and spirituality	14			х			0
Biodiversity status and trends	12				х		3
Nature's contributions to IPLCs	13			х			2
IPLCs' contributions to Nature	11				х		3
Scenarios	9			х			5
Policymaking	9			х			4
Rights and justice	11			х			2
Knowledge gaps	14			х			1

In general, authors gave less favourable reviews of how well they were able to consider and represent different themes of relevance to ILK and IPLCs in the assessments, resulting in lower ratings overall compared to the previous questions. "Contributions by IPLCs to nature" (including for example management of biodiversity by IPLCs), and "biodiversity status and trends" were considered to be the themes that were best considered, receiving median rankings of "well covered". The median response for "values, worldviews, and spirituality", "nature's contributions to IPLCs", "scenarios", "policymaking", "rights and justice" and "knowledge gaps" was "somewhat considered".

Table 9: Median ratings by authors of how effectively they were able to use different ways of representing ILK in the assessments.

Ways of representing ILK	Number of respondents		Number of respondents				
in the assessment	who gave a rating	not at all	slightly effectively	somewhat effectively	effectively	highly effectively	responding "I do not know"
Text on ILK and IPLCs' issues	14			x			0
ILK/IPLC cross- chapter narrative	14			х			0
Case studies	14				х		0
Figure or graphics	14				х		0
Artworks, songs, poems	13		х				0
Representation of ILK in the SPMs	14			х			0

Authors gave mixed reviews of how effectively different ways of representing ILK were used in the assessments. "Case studies" and "figures and graphics" were seen to be used "effectively", while the median response for "text on ILK and IPLCs' issues" fell exactly between the "somewhat effectively" and "effectively" categories. "Development of cross-chapter narratives" and "representation of ILK and IPLCs in the summaries for policymakers (SPMs)" were largely seen to used "somewhat effectively". Meanwhile, for art, songs and poetry, the median response was that they were used "slightly effectively" in the assessments.

G. National Ecosystem Assessments and Indigenous and local knowledge⁴

While IPBES is not itself conducting national ecosystem assessments, the Biodiversity and Ecosystem Services Network (BES-Net)⁵ and the National Ecosystem Assessment Initiative support countries conducting national ecosystem assessments. In this work they recognize that ILK enriches policies and the conservation knowledge-base.

BES-Net and the National Ecosystem Assessment Initiative have developed ILK approaches and tools, which build on the IPBES approach to recognizing and working with ILK and the methodological guidance, with an aim of developing evidence-based National Ecosystem Assessments grounded in multiple knowledge systems.

The BES-Net ILK support unit also works closely with the IPBES technical support unit for and task force on ILK. The IPBES technical support unit and task force support ILK capacity-building of National Ecosystem Assessment country partners through sharing IPBES experiences with ILK, lessons learned, challenges and insights, including during dedicated webinars, as well as reviewing guidance documents on ILK approaches and methods for national ecosystem assessments.

The BES-Net ILK support unit and the National Ecosystem Assessment Initiative have developed two National Ecosystem Assessment ILK resources, available in English, French and Spanish, entitled:

- Why engage with IPLCs in National Ecosystem Assessments
- Practical guidelines of working with ILK in National Ecosystem Assessments

Other National Ecosystem Assessment material guides also prominently feature ILK, including:

- Confidence Terms
- Trialogue in National Ecosystem Assessments interactive guide
- Selecting Authors
- Gender considerations and gender balance

As a result of this work, countries conducting national ecosystem assessments have engaged a variety of methods for working with ILK and enhancing participation of IPLCs. Methods used in the national ecosystem assessments include:

Indigenous Peoples and local communities as authors

⁴ Review kindly provided by the BES-Net program.

⁵ BES-Net is jointly implemented by United Nations Development Programme (UNDP – hosts BES-Net and leads multi-stakeholder engagement and Trialogues), The United Nations Environment Programme's Wildlife Conservation Monitoring Centre (UNEP-WCMC – hosts the National Ecosystem Assessment Initiative) and UNESCO (leads the Indigenous and local Knowledge support unit).

- Literature reviews
- Community dialogues, including scoping and framing workshops
- Walking workshops
- Mapping projects
- National trialogues

H. Conclusion

IPBES is recognized as ground-breaking and innovative for its work with ILK and IPLCs at the global level. Efforts to enhance work with ILK and increase participation by IPLCs are showing clear benefits and results through successive assessments. This standard setting is influencing biodiversity processes at other levels, including national ecosystems assessments.

Challenges still remain within IPBES, including balances between natural science, social science and ILK within assessments, language barriers and funding limitations, all of which limit participation by IPLCs and limit work with ILK, particularly within author teams. Other areas of IPBES work may also benefit from increased attention to ILK. From the perspective of IPLCs, there are few visible impacts on policymakers and business and industry from IPBES assessment findings related to ILK and IPLCs.

To continue to enhance both IPBES work with ILK and participation by IPLCs, key areas of attention include enhancing the consideration of different methodologies for reflecting ILK, ensuring expertise on ILK in assessments, capacity-building for IPLCs and authors, enhancing communication to IPLCs, addressing language barriers and funding limitations, and strategically enhancing outreach to policymakers and other stakeholders.

REPORT

1. Introduction

As part of the workplan for the intersessional period 2022–2023, set out in annex IV to decision IPBES-9/1, the Plenary requested the task force on Indigenous and local knowledge (ILK) to prepare a review of Indigenous and local knowledge ILK in IPBES as follows:

Review of the inclusion of ILK in IPBES functions and deliverables, with a focus on the *Global Assessment Report on Biodiversity and Ecosystem Services* (Global Assessment), the *Thematic Assessment Report on the Sustainable Use of Wild Species* (Sustainable Use Assessment) and the *Methodological Assessment Report on the Diverse Values and Valuation of Nature* (Values Assessment), and other activities since 2019, including proposals for strengthening the implementation of the approach to recognizing and working with ILK in IPBES, and preparation of a brief report, for consideration by the Plenary at its tenth session, with regard to:

- (a) The ways in which ILK has been included in IPBES products, as well as in national and regional assessments that are based on IPBES methodologies;
- (b) Enhancing methodologies for working with ILK;
- (c) Enhancing the participation of Indigenous Peoples and local communities (IPLCs) in IPBES.

The following report presents the methods and findings of this review, prepared by the task force and technical support unit on ILK.

2. Methods for the review

Methods for the review of the inclusion of ILK in IPBES were developed by the task force and technical support unit for ILK during a series of meetings and email exchanges, including what types of data should be sought, which methods to use and who to engage as participants in different aspects of the review. Methods used in the review included:

- A brief desk review of assessment methods employed in all completed assessments.
- A review of the number of sentences discussing IPLCs and/or ILK in the summaries for policymakers of completed assessments, to give an indication of the scope of attention

given to IPLCs and ILK in the assessments. This was done by a careful reading of each summary for policymakers. The review quantified:

- Sentences that specifically discuss IPLCs or ILK, e.g., "Customary governance by IPLCs makes significant contributions to biodiversity conservation" or "ILK holds important information about biodiversity".
- Sentences that mention IPLCs or ILK: e.g., "Biodiversity governance can be enhanced by stakeholder engagement, including with business and industry, IPLCs and others" or "Attention to diverse systems of knowledge, including science, citizen science, practitioner knowledge and ILK, can enhance biodiversity conservation".

• Surveys:

- Surveys were sent to IPLCs who have participated in different ways in IPBES activities (unless they had participated as authors, in which case they were sent the survey for authors, described below), requesting their feedback on aspects of the processes for working with ILK and methods for enhancing participation by IPLCs. The survey was partially or fully completed by 16 members of IPLCs.
- Surveys were sent to authors of the Global, Values and Sustainable Use Assessments, requesting their feedback on aspects of the process for working with ILK and methods for enhancing participation by IPLCs. The survey was completed partially or fully by 18 authors.
- The Biodiversity and Ecosystem Services Network (BES-Net)⁶ was invited to provide:
 - A brief analysis of methods used in the national ecosystems assessments that were coordinated through the BES-Net, and
 - An overview on how these methods connect to the IPBES approach and methodologies.

⁶ BES-Net is jointly implemented by United Nations Development Programme (UNDP – hosts BES-Net and leads multi-stakeholder engagement and Trialogues), The United Nations Environment Programme's Wildlife Conservation Monitoring Centre (UNEP-WCMC – hosts the National Ecosystem Assessment Initiative) and UNESCO (leads the Indigenous and local Knowledge support unit).

3. Main conclusions

3.1 Overview of assessment methods

IPBES methods for working with ILK have developed over the course of the assessments, as shown in the table below, with ILK liaison groups, the call for contributions and materials for IPLCs being introduced for the Global Assessment, and dialogues during the scoping phase and a rigorous cycle of dialogue workshops during assessments being introduced for the Sustainable Use and Values Assessments, as shown in table 1, below.

Table 1: Methods implemented to work with ILK and IPLCs in completed IPBES assessments.

IPBES assessment	Completion date	Scoping dialogue	ILK liaison group	Dialogue workshops ⁷	Call for contributions	Materials for IPLCs produced from assessment8
Pollinators, Pollination and Food Production	2016	No	No	1	No	No
Four Regional Assessments	2018	No	No	1-2 per assessment	No	No
Land Degradation and Restoration	2018	No	No	0	No	No
Global Assessment	2019	No	Yes	1	Yes	Yes
Sustainable Use	2022	Yes	Yes	3	Yes	Yes
Values	2022	Yes	Yes	3	Yes	Yes

⁷ Lasting one day or more, organized specifically for the assessment.

⁸ This refers to materials produced for Indigenous Peoples and local communities by IPBES. It should also be noted, however, that materials were produced by CSIRO and SwedBio for the Pollination Assessment (see https://research.csiro.au/multipleknowledges/category/posters/), and by BES-Net for the Land Degradation Assessment (see https://www.besnet.world/back-to-our-roots-how-land-degradation-particularly-affects-indigenous-peoples-and-local-communities/), among others.

3.2 Overview of sentences referring to Indigenous Peoples and local communities in the summaries for policymakers

An analysis of sentences in the summaries for policymakers of completed assessments shows a clear increase in the number of references to ILK and IPLCs starting with the Global Assessment and continuing with the Values and Sustainable Use Assessments, as shown in table 2.

Table 2: sentences referring to ILK and IPLCs in the summaries for policymakers (SPMs) of completed assessments.

Assessment	Date of completion	Number of sentences that specifically discuss IPLCs/ILK ⁹	Number of sentences that note IPLCs/ILK ¹⁰	Total wordcount of SPM (to give indication of length of SPM)
Pollinators, Pollination and Food Production	2016	28	7	12,963
Regional Assessment: Africa	2018	25	5	15,608
Regional Assessment: Americas	2018	26	3	13,085
Regional Assessment: Asia and the Pacific	2018	27	4	11,148
Regional Assessment: Europe and Central Asia	2018	30	3	16,139
Land Degradation and Restoration	2018	25	25	16,506
Global Assessment	2019	70	38	24,139
Sustainable Use	2022	105	18	19,121
Values	2022	70	36	17,730

⁹ Sentences that specifically discuss IPLCs or ILK, e.g., customary governance by IPLCs makes significant contributions to biodiversity conservation.

¹⁰ Sentences that mention IPLCs or ILK, e.g., biodiversity governance can be enhanced by stakeholder engagement, including with business and industry, IPLCs, and others.

3.3 Surveys with Indigenous Peoples and local communities: main conclusions

3.3.1 What works well

IPLC respondents noted many different aspects of IPBES work with ILK that are positive, including:

- IPBES is recognized as innovative and groundbreaking for its work with ILK and IPLCs in global-scale assessments;
- Dialogue workshops are recognized as particularly important and effective for bringing ILK into assessments;
- Free, prior and informed consent procedures and processes are noted to be very well developed around the dialogue workshops;
- For those who know and understand IPBES, finding relevant information, mostly through the IPBES website, is quite easy; and
- IPLCs are using IPBES assessments to support their work at international, national and local levels. Summaries for policymakers and materials produced specifically for IPLCs are particularly useful.

3.3.2 Challenges

IPLC respondents also noted ongoing challenges:

- For many IPLCs, knowledge of IPBES in general is very low;
- For those who do know IPBES, it can still be difficult to follow and understand all the different processes;
- The scientific nature of the overall assessment process continues to address ILK within scientific frameworks, which may limit the ways that ILK can be understood or conveyed;
- Due to the predominance of scientific frameworks, quantitative approaches and English as the main language, few members of IPLCs apply to participate in assessment teams as authors, and those who do often find this to be a challenging environment, which greatly limits the ways ILK can be included in assessments;
- This reduced participation can result in reduced capacity of author teams to work with the outcomes of ILK dialogue workshops, contributing authors and free, prior and informed consent processes, and it is often unclear to IPLCs how or if their inputs are being used in the assessments;
- Funding and support for participation in IPBES processes is a major challenge, as many IPLCs are not supported by institutions that would allow them to use a proportion of their time for IPBES work;
- Ineligibility for travel support of experts from the Western Europe and Others Group countries represents a major barrier to participation by IPLCs from these countries, including as authors, task force members or dialogue workshop participants;

- Completed IPBES assessments may not reach many IPLCs at local levels;
- Work with ILK and IPLCs within other functions of IPBES is underdeveloped or unknown to many IPLCs;
- Modes of participation by IPLCs in the plenary are very limited; and
- A final challenge highlighted by many respondents is a lack of uptake of IPBES assessment findings at national levels, with few clear impacts on governments and business and industry.

3.3.3 Ways forward

Respondents recommended different ways to enhance IPBES work with ILK and IPLCs:

- Enhanced efforts at outreach and networking with IPLC organizations, including translation and dissemination of IPBES products;
- Enhanced capacity-building with IPLCs on how to participate as authors and how to develop case studies and contributions, with a particular focus on youth and fellows;
- Enhancing exploration of methods based on the knowledge systems and traditions of IPLCs, and providing more spaces for IPLCs to contribute in appropriate ways. This could include groups of IPLCs developing their own assessments, or chapter or sections of an assessment;
- Greater use of other ways of representing knowledge, including videos, pictures, audio records, and artworks, could help to better understand and contextualize ILK and support IPLC contributions;
- Consistent sources of financial support for participation will need to be found, to support sustained participation by many IPLCs, including for those from WEOG countries;
- More concrete and strategic steps to enhance uptake of IPBES findings by governments and business and industry groups are needed;
- Work with ILK and IPLCs needs to be enhanced in other areas of IPBES work, particularly capacity-building, policy support and knowledge catalysis; and
- IPLC participation in Plenary sessions could be enhanced.

3.4 Survey with assessment authors main conclusions

3.4.1 What works well

Assessment authors highlighted a number of positive aspects of work with IPLCs and ILK in IPBES assessments:

 IPBES is innovative in its openness to diverse voices and types of knowledge at the global level, and ILK and IPLC participation make increasingly significant contributions to IPBES assessments;

- In general, assessment authors noted that significant efforts are made to work with ILK and IPLCs within IPBES assessments, and that these have been increasing over time;
- Transdisciplinary author teams, ILK liaison groups, literature reviews, dialogue workshops, the call for contributions and engagement of contributing authors have seen significant improvements with successive assessments;
- The approach to recognizing and working with ILK in IPBES, the methodological guidance, the task force and the technical support unit for ILK serve important roles; and
- ILK is represented in increasingly diverse ways in assessments, including in graphics, images, artworks and poems.

3.4.2 Challenges

Assessment authors also highlighted a number of challenges relating to work with IPLCs and ILK in IPBES assessments:

- Due to the predominance of scientific frameworks, ILK is often interpreted through a scientific lens;
- Dynamics within transdisciplinary teams can be challenging, as methods for working with ILK may need to be negotiated and justified with other authors. This can increase the workload and stress for authors, particularly authors who are IPLCs, and can limit coherent work with ILK across a chapter;
- The number of authors working on ILK in chapter teams are often low, making it difficult to carry out extensive reviews of literature and other materials or to conduct all relevant activities related to ILK. This can mean that:
 - "Grey" literature and other sources of knowledge may remain underexplored;
 - The submissions received in response to a call for contributions may not be processed as efficiently as expected and not be included into the assessment in a systematic way;
 - Engagement and follow-up with contributing authors and dialogue workshop participants may be reduced;
- Numbers of IPLCs working in assessments also remain very low, for the reasons given above, and also due to English being used as the predominant language and a lack of funding and institutional support for their participation;
- Insufficient engagement and interlinkages between chapters of an assessment can lead to a lack of a coherent ILK narrative.
- Insufficient engagement and interlinkages between chapters can also lead to ILK expertise being dispersed across an assessment, reducing the potential for coherent teamwork;
- Language barriers can prevent access to and use of many materials of relevance to the assessments, as much ILK is documented in languages other than English.

3.4.3 Ways forward

Assessment authors also suggested different ways forward for work with IPLCs and ILK in IPBES assessments:

- Enhancing the overall ILK expertise in each chapter, including:
 - Ensuring at least one coordinating lead author of each chapter has expertise on ILK, and that all coordinating lead authors are open to the idea of working with ILK, as they play a crucial role in whether work with ILK is effective in a chapter;
 - o Ensuring that each chapter has at least one IPLC scholar or expert on ILK;
 - Enhancing efforts at capacity-building throughout author teams and uptake of the approach and methods guide by all authors, so that ILK is well supported even by those who are not directly working with it;
- Continuing to explore approaches to enhance IPLC participation, and methodologies by which ILK can be represented on its own terms, directly by IPLCs, including by:
 - Exploring methodologies based on techniques and methods drawn from the traditions and knowledge systems of Indigenous Peoples;
 - Building a greater focus within author teams on working with non-written forms of knowledge expression, e.g., artworks, poems, songs, and rituals;
 - Enhancing dialogue workshops and connections to communities;
- Enhancing the space provided for collaboration around the further development and implementation of ILK methodologies, by:
 - Dedicating a chapter of each assessment to ILK, to provide a space where IPLCs and researchers who work with ILK can work together to develop appropriate methodologies and representations of ILK; or
 - Producing an entire assessment based solely on ILK;
- Providing or securing funding to support IPLC participation more broadly, including for IPLCs from Western Europe and Other Group countries, as many IPLCs are not part of institutions or organizations that can support their participation or the time spent on IPBES activities e.g. reviewing reports;
- Enhanced communication with participants (e.g., participants in dialogue workshops or the call for contributions) throughout the assessment process so they can see how their inputs are influencing the development of assessments;
- Enhanced efforts at building networks and connections with IPLC organizations at international, national and sub-national levels, and keeping them informed throughout the assessment cycle and asking for inputs e.g., relating to contributing authors and reviews. This should include a focus on local communities, who tend to less represented in dialogues and other activities;
- Enhanced follow up with IPLCs after an assessment is completed, and tracking of impacts; and
- Enhanced focus on implementation and tracking of impacts among governments.

4. Detailed results of the surveys¹¹

4.1 Survey for IPLCs: results

4.1.1 General information

The survey was partially or fully completed by 16 members of Indigenous Peoples or local communities who have participated in IPBES in different ways. One respondent identified as a member of a local community, and fifteen respondents as Indigenous. A diversity of communities and nationalities are represented (see table 3).

Table 3: details of nationalities and communities of IPLC respondents.

Nationalities	Argentina, Antigua and Barbuda, Bolivia, Canada, Guatemala, Kenya (x2), Mexico, Nepal, Philippines, Russian Federation (x3), Namibia/South Africa, Uganda
Indigenous Peoples and local	Afro descent and native to the island in Antigua, Maasai,
communities	Karamojong, Maya, Zapotec (Didza), Kirant Indigenous
	Samarung, Udege, Yukaghir, Mi'kmaq, Kankanaey, Igorot,
	Selkup, Aymara People, San (Hai om), Ibaloi-Igorot, Omaguaca

 $^{^{11}}$ Disclaimer: The text in section 4 represents solely the views and contributions of the respondents to the surveys.

4.1.2 Participation in IPBES activities

IPLC respondents had participated in various different IPBES activities (see figure 1), particularly as participants of events organized by IPBES, as assessment authors, or as task force members. "Other" activities cited included: lead author in the nexus assessment (and therefore not included as an author in this review, as the nexus assessment is still ongoing), review editor of chapter 6 of the Values Assessment, Nepal IPBES expert team member, national workshops, and conducting a local dialogue on the pollinators assessment.

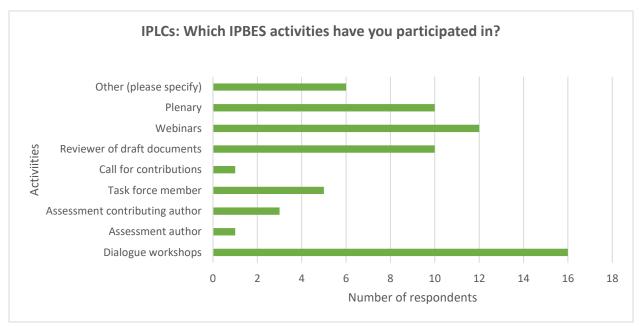


Figure 1: Participation of IPLC survey respondents in different IPBES activities.

4.1.3 Communication and information sharing

IPLC respondents learned about IPBES in many ways (see figure 2), mostly through official notifications and email communications from IPBES and UNESCO, through organizations or networks of IPLCs and through other organizations and meetings. They also learned about IPBES through participation in various IPBES activities related to communication and information sharing, among them dialogue workshops, external reviews of draft documents, and webinars.

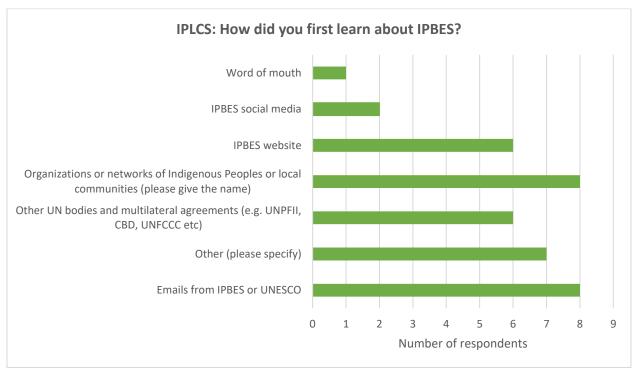


Figure 2: The different ways that IPLC respondents first learned about IPBES. "Other UN bodies and multilateral agreements" and "Other" cited by respondents include: United Nations Environment Programme (UNEP) & related UN meetings, Convention on Biological Diversity, multilateral environmental agreements, Congress of Ethnobiology, Ocean Nexus, references in other presentations, support from a national government to attend an IPBES meeting.

Respondents remain informed about IPBES particularly through official notifications and emails from IPBES or UNESCO, and through the IPBES website, dialogue workshops and webinars (see figure 3).

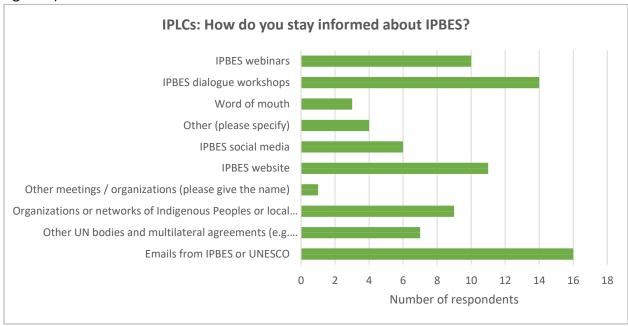


Figure 3: The different ways that IPLC respondents stay informed about IPBES.

Overall, most respondents (10 of 16) considered it quite easy or very easy to find and understand information about work with ILK and participation by IPLCs in IPBES. Meanwhile three respondents considered that it is difficult or very difficult (see figure 4).

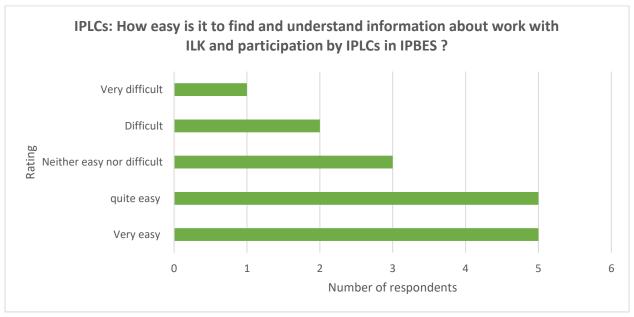


Figure 4: IPLC respondents' ratings of how easy or difficult it is to find and understand information about IPBES activities relevant to IPLCs.

Communication and information sharing: what works well

Respondents also made qualitative comments about what works well in relation to communication and information sharing, including:

- IPBES updates and BES-Net newsletters are seen as efficient communication tools;
- Dialogue workshops involving IPLCs and the scientific community and trips to communities are activities that improve the access and understanding of information about IPBES; and
- Webinars are a valuable source of information as well as a place to share different perspectives with a wider audience.

4.1.3.1 Communication and information sharing: Challenges

Respondents also made comments about challenges in relation to communication and information sharing, including:

- Virtual meetings present some challenges, as some IPLCs face problems with time differences and internet or technology difficulties during these meetings;
- The number of activities and processes for different IPBES assessments and their summaries for policymakers makes it difficult to find relevant information and follow the processes;
- Another challenge is how to involve a greater range of different participants in IPBES
 processes (e.g., in preparation of assessments), such as ILK holders, elders, women, and,
 crucially youth, as they hold the future of ILK;
- Using English as the dominant language during IPBES activities is also a challenge for many participants; and
- The difficulty in expressing and explaining ILK within a scientific process is a key challenge, especially when Indigenous and local languages cannot be used.

4.1.3.2 Communication and information sharing: Ways forward

Respondents also made recommendations for ways forward in relation to communication and information sharing, including:

- A simpler way to access information could be developed, including graphics, which should also be translated into different languages;
- Existing IPBES information should also reach communities, in a culturally mediated way: the communication should be in Indigenous languages and should enable a dialogue of knowledge systems;
- Indigenous youth engagement in IPBES processes could be improved through engagement with Indigenous youth networks and improving digital communication through social media; and
- Involving more IPLCs in the writing process could begin to address the challenge of translating IPLC concepts into a scientifically framed assessment.

4.1.4 Assessment methods for working with ILK and IPLCs

According to most respondents (15 of 16), ILK and IPLCs have some or a notable influence on the assessment scoping processes, and dialogue workshops during the scoping of the Sustainable Use and Values and Valuation Assessments have helped to enhance this (see figure 5, below).

Overall, twelve respondents estimated that IPBES is doing well or very well at working with ILK (see figure 6, below).

In relation to the broader assessment process, eleven respondents answered that IPLC participation in IPBES processes is good or in-depth. Five answered there is only some participation (see figure 7, below).

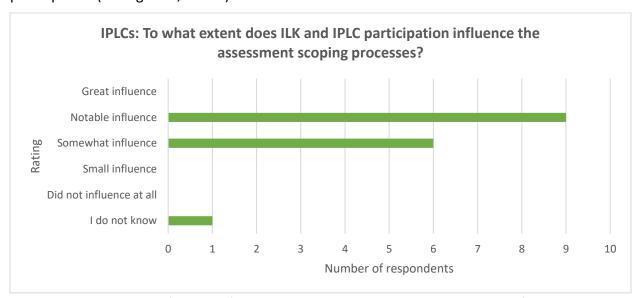


Figure 5: IPLC respondents' ratings of the extent to which ILK and IPLC participation influence assessment scoping processes.

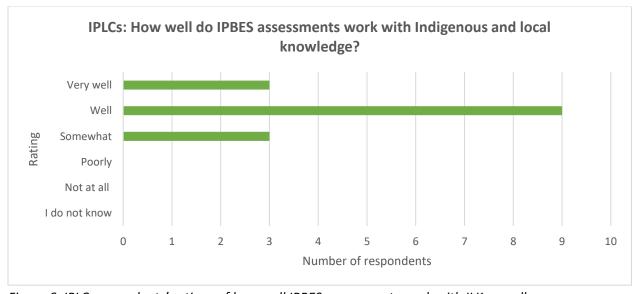


Figure 6: IPLC respondents' ratings of how well IPBES assessments work with ILK overall.

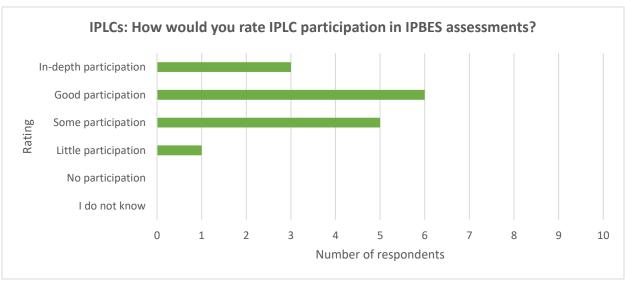


Figure 7: IPLC respondents' ratings of participation by IPLCs in IPBES assessments.

4.1.4.1 What works well

Respondents also made the following qualitative comments about positive aspects of IPBES work with ILK and participation by IPLCs:

- Work with ILK in assessments is critical and pioneering, and is increasing;
- Valuable knowledge is shared by IPLCs throughout the entire assessment process and IPLC contributions to IPBES assessments are improving the credibility of the assessments;
- Some respondents recognized the need for balance between all actors in an assessment, including scientists and IPLCs;
- The existence of a dedicated ILK task force and technical support unit is helping to enhance work with ILK in IPBES;
- Reviewing diverse materials was highlighted as important for working with ILK;
- Literature reviews and global aggregations of data carried out on assessment themes
 have been very useful for raising the visibility of contributions of IPLCs to biodiversity
 conservation and assessment processes, for policymakers, scientists and for IPLCs beyond
 their local experiences;
- Dialogue workshops with assessment authors and ILK holders allow for an interactive discussion. Field visits within these workshops are a positive development as they support an understanding of ILK in practice, as well as the building of networks and case study development. IPBES is increasing efforts to honor community protocols and ceremonies during the dialogues;
- Including contributing authors from IPLCs into assessment expert groups is an effective mode of participation, which could be enhanced;

- Guidance documents on how assessments can work with ILK, and guidance and information on free, prior and informed consent and how ILK will be stored and managed is also helpful, as it increases trust during the dialogues; and
- IPBES is now capitalizing the "I" on Indigenous, which is highly significant for Indigenous Peoples.

4.1.4.2 Challenges

Respondents also made the following qualitative comments about challenges relating to IPBES work with ILK and participation by IPLCs:

- IPLCs are still not participating enough in IPBES processes: only a few IPLCs are involved, and they could have more opportunities to participate and be more active throughout the processes;
- There are very few IPLCs who are working as authors. Those who do join author teams face many challenges, such as communicating in a language that is different from their own language and conceptualizations, which, among other problems, brings ethical issues in relation to the responsibilities they feel to Mother Earth and Indigenous rights;
- Within all IPBES activities, a key challenge is the unaddressed differences between ILK and science, and as a result IPLCs feel forced to use scientific framings and language to express and explain ILK, which brings risks of misrepresentation;
- The effectiveness of work with IPLCs is highly dependent on the knowledge and experience of authors and members of liaison groups with existing networks and resources among IPLCs;
- Sustained participation throughout the conception and review phases is needed by IPLCs, with ongoing communication and follow up, rather than IPLCs only giving sporadic contributions;
- Awareness about IPBES remains low among many IPLCs, and many IPLCs may feel they do not have the capacity to participate in IPBES activities; and
- The use of English rather than other UN languages is a serious challenge for many IPLCs.

4.1.4.3 Ways forward

Respondents also made the following qualitative comments about ways forward for IPBES work with ILK and participation by IPLCs:

- To improve IPLC participation in IPBES assessments, respondents noted a need for a greater focus on capacity-building, support and targeted communication and outreach to enhance IPLC participation, including for elders and youth;
- Respondents also highlighted the need for more IPLCs to be involved in the writing process, and made the following suggestions:
 - Methodologies could be further developed for IPLC contributions and participation in writing processes that allow for more appropriate inclusion and representation of ILK and IPLC values and concerns;

- A quota could be allocated for IPLCs in author groups;
- A fellowship program could be created for Indigenous university students, to support IPLC youth participation;
- IPLCs could develop assessments or chapters within assessments based on ILK and appropriate methodologies;
- Sources of financial support will need to be identified to support IPLC authors in their work;
- In terms of providing contributions and case studies:
 - Training and support for writing case studies and contributions is needed, including during dialogue workshops;
 - More direct communication, collaboration and support at local levels is needed, rather than relying only on broad calls for contributions;
- In relation to dialogue workshops:
 - Respondents also recommended that more time and funding should be allocated to dialogue workshops, with the aim of generating deeper discussions between authors and IPLCs. These should have interpretation into as many UN languages as possible to enhance participation;
 - Field and community visits during the dialogue workshops are important activities which could be further enhanced;
- In relation to how ILK and IPLCs are represented in assessments:
 - Inclusion of more case studies on good IPLC practices would be beneficial, which could be broadly sourced and co-written by IPLCs;
 - Greater use of other ways of representing knowledge, including videos, pictures, audio records, and artworks, would help to better understand and contextualize ILK;
 - Innovative recommendations to Member States to support Indigenous and local ecological governance and practices are needed;
 - More efforts to directly correlate IPBES findings and policy options with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) would be of benefit;

Additionally:

- More regions and countries should also be covered by IPBES activities;
- National and regional processes could be enhanced, including dialogue workshops at these scales.

4.1.5 Free, prior and informed consent (FPIC)

According to ten of 15 respondents, IPBES processes follow free, prior and informed consent procedures (FPIC) "well" or "very well", while two rated this "somewhat" and two only "slightly" (see figure 8).

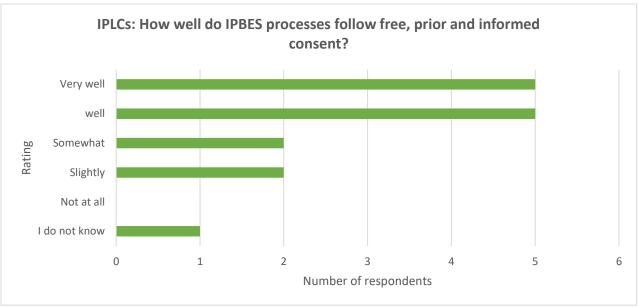


Figure 8: IPLC respondents' ratings of the application of free, prior and informed consent in IPBES processes.

4.1.5.1 What works well

Respondents also made the following qualitative comments about positive aspects of IPBES work with free, prior and informed consent:

- Several respondents noted that free, prior and informed consent is a core right of Indigenous Peoples and should provide the foundation of all engagement with them;
- Several respondents noted that IPBES is a leading organization in terms of its respect for and commitment to free, prior and informed consent, and that this has been used as a learning experience that can encourage other organizations to use similar processes; and
- IPBES documents and explanations of free, prior and informed consent are clear, particularly during the dialogue workshops, as are the processes for consenting to materials and products from the dialogues. This provides a foundation for trust and collaboration.

4.1.5.2 Challenges

Respondents also noted the following challenges relating to IPBES work with free, prior and informed consent:

- Application of free, prior and informed consent during assessment writing processes can be less clear, including whether proper credit and recognition is being given to contributors, participants and knowledge holders in assessments;
- It is also not always clear if assessment products are reaching contributors and participants at the end of an assessment so that people understand how their contributions were used; and
- Respondents also noted challenges because ILK is collectively held, but free, prior and informed consent processes focus on individual consent.

4.1.5.3 Ways forward

Respondents also suggested the following ways forward relating to IPBES work with free, prior and informed consent:

- To improve the process, respondents recommended reviewing the free, prior and informed consent procedures used in ILK dialogue workshops for the entire cycle of the assessment process;
- Physical copies of the free, prior and informed consent agreement could be signed by participants at dialogues; and
- Ongoing updates and communication could be used to inform participants of how their contributions are being used.

4.1.6 Use of different IPBES assessment products by IPLCs

In general, IPLCs reported that summaries for IPLCs, webinars on the assessment findings and the official summaries for policymakers were the most useful products derived from IPBES assessments, but that few IPLCs may be reading or using the assessment chapters (see figure 9).

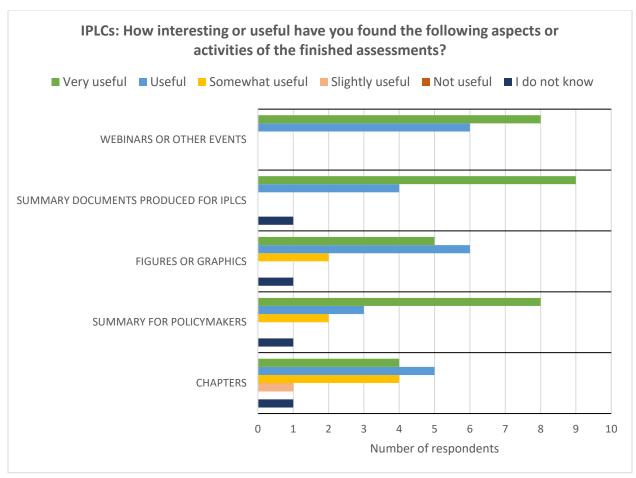


Figure 9: Ratings by IPLC respondents of how useful they have found different aspects and activities of IPBES assessments.

4.1.6.1 What works well

Respondents also made the following qualitative comments about positive aspects of use of different IPBES assessment products by IPLCs:

- Most respondents considered chapters, summaries for policymakers, figures or graphics, summary documents for IPLCs, and webinars or other events as useful or very useful;
- In particular, summary documents produced for IPLCs were considered very useful for IPLCs, and were noted to be easy to read;
- Webinars were seen as helpful and informative;
- Graphics are useful tools that help to represent IPLC issues;

- These documents and resources have been used by IPLCs in different ways:
 - In discussions with national and local governments, for example on free, prior and informed consent, updates of National Biodiversity Strategies and Action Plans (NBSAPs), and to develop future adaptation plans under the United Nations Framework Convention on Climate Change at the local level;
 - To advocate for Indigenous Peoples' issues at the international level, for example around the new Kunming-Montreal Global Biodiversity Framework, with the Global Assessment cited as particularly useful in this case;
 - In formulating proposals for funding and research;
 - o To contribute to university and graduate programs as a source of data; and
 - To demonstrate to community members that their knowledge is recognized, valued and respected at international levels.

4.1.6.2 Challenges

Respondents also made the following qualitative comments about challenges relating to the use of different IPBES assessment products by IPLCs:

- IPLCs may not be reading or using the assessment chapters as they can be seen as long and inaccessible;
- Connecting broad global-scale IPBES findings to the local level can be difficult;
- It can be difficult to find and access documents on the IPBES website;
- Connectivity and technology issues may present barriers for use of the website and participation in webinars, limiting use of the assessments;
- It can be difficult to know what stage an assessment is at, and what can be shared and what is confidential; and
- In spite of many documents being produced, implementation at different levels often does not seem to occur.

4.1.6.3 Ways forward

Respondents also made the following qualitative recommendations about ways forward relating to use of different IPBES assessment products by IPLCs:

- Enhanced translation of products would greatly aid uptake and use, including into IPLC languages;
- More active dissemination to IPLCs, including women and youth;
- Emails with links to relevant parts of the IPBES website could be sent out, to encourage people to click into the website; and
- More strategic follow-up with governments and other actors, so that IPBES products lead to implementation and change.

4.1.7 IPLC use and interest in themes and topics in assessments

Most of the IPLC respondents considered the themes listed in figure 10 below as useful or very useful. No theme was considered not useful by any respondent. In particular, 11 respondents found the theme "IPLC values, worldviews, and spirituality" very useful.

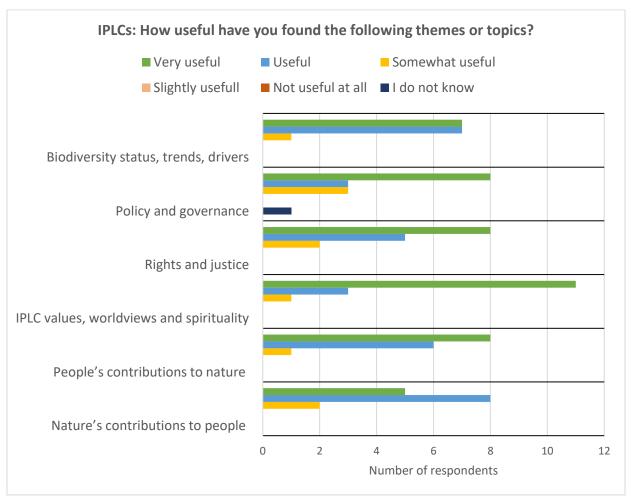


Figure 10: Ratings by IPLC respondents of how useful they have found different themes and topics within IPBES assessments.

4.1.7.1 What works well

Respondents also made the following qualitative comments about positive aspects of IPLC use and interest in themes and topics in assessments:

- In general, IPBES assessments and their themes have helped to expand the scope of biodiversity policy to different systems of knowledge, including ILK. They have been useful for IPLCs in terms of advocacy and visibility, and for building research proposals, as resources that confirm IPLCs as protectors of nature;
- Spirituality was highlighted as a key theme. A respondent noted that the most significant role of the assessments has been to ensure that IPLC values, worldviews and spirituality

were part of discussions at the global level and in policy discussions. Those values help to better understand the environmental crisis and provide information on the effects of the crisis. Those values also provide a positive message that the crisis can be overcome by learning from those who protect and have a strong relationship with nature. Other respondents noted that concepts of Mother Earth are key for understanding and conveying IPLC relationships within nature;

- The concept of "nature's contributions to people" can be linked to Indigenous food festivals, which document Indigenous food and promote it as healthy and more sustainable;
- The concept of "sustainable use" can help to develop and promote sustainable IPLC enterprises and enhance the protection of wild species by showing their value and need for sustainable management; and
- The Pollinators, Pollination and Food Production Assessment was also highlighted as highly important for IPLCs, as an initial groundbreaking work with ILK.

4.1.7.2 Challenges

Respondents also made the following qualitative comments about challenges relating to of IPLC use and interest in themes and topics in assessments:

- A respondent noted that issues of rights could be better explained and highlighted in the assessments; and
- Respondents noted that while documents are clear and useful, there are few mechanisms or resources to ensure follow up, to ensure uptake beyond existing networks, or to track implementation.

4.1.7.3 *Ways forward*

Respondents also made the following qualitative comments about ways forward relating to IPLC use and interest in themes and topics in assessments:

- More efforts towards dissemination and distribution of IPBES products is needed, and translation into other languages.
- A better system for tracking and understanding the impacts of IPBES assessments, and how they are being used by IPLCs, could be useful.

4.1.8 Impacts of assessments on policies and actions related to IPLCs

In general, respondents noted great or notable impacts of IPBES assessments on IPLCs themselves, and notable impacts on non-governmental organizations (NGOs), funders and scientists and researchers. Lower impacts were seen on national governments and policymakers, and business and industry (see figure 11).

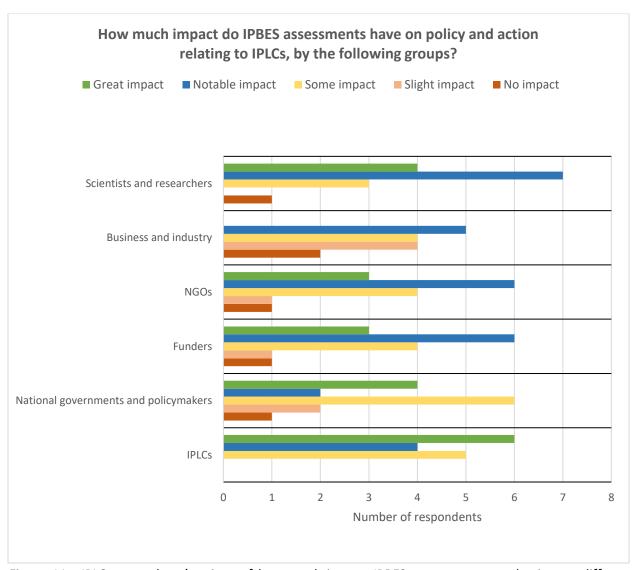


Figure 11: IPLC respondents' ratings of how much impact IPBES assessments are having on different actors, in terms of their policies or action related to IPLCs.

4.1.8.1 What works well

Respondents also made the following qualitative comments about positive aspects of impacts of IPBES assessments:

• In general, respondents recognized the impact of IPBES assessments at the international level, with impacts on decisions and policies under multilateral environmental agreements. Some respondents recognized for example that the Global Assessment

- helped them to advocate for IPLC inclusion in the new Kunming-Montreal Global Biodiversity Framework; and
- Some respondents also noted that national governments and donors have become more aware of IPLCs and their contributions to biodiversity conservation due to IPBES assessments.

4.1.8.2 Challenges

Respondents also made the following qualitative comments about challenges relating to impacts of IPBES assessments:

- In spite of rising awareness and legitimacy around IPLC issues, it was noted that policy and action at the national level are still mostly lacking;
- Business and industry groups also often do not seem to be aware of or making progress around respect for IPLCs, and continue to damage IPLC lands and waters. Intellectual property concerns around ILK are also growing; and
- Most IPLCs are also unaware of IPBES or its findings and processes.

4.1.8.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to impacts of IPBES assessments:

- It is necessary to enhance dissemination and awareness programs on IPBES themes for governments and businesses and industries, as they are decisive actors in translating IPBES findings into actions; and
- More targeted outreach to IPLCs is needed so they can better understand how to make use of IPBES assessments.

4.1.9 ILK and IPLC participation in other IPBES activities

In general, other areas of IPBES work are seen by IPLC respondents to be less developed in terms of work with ILK and participation by IPLCs, with work with scenarios as the most advanced and catalysis of new research/ knowledge generation and data management as the least (see figure 12).

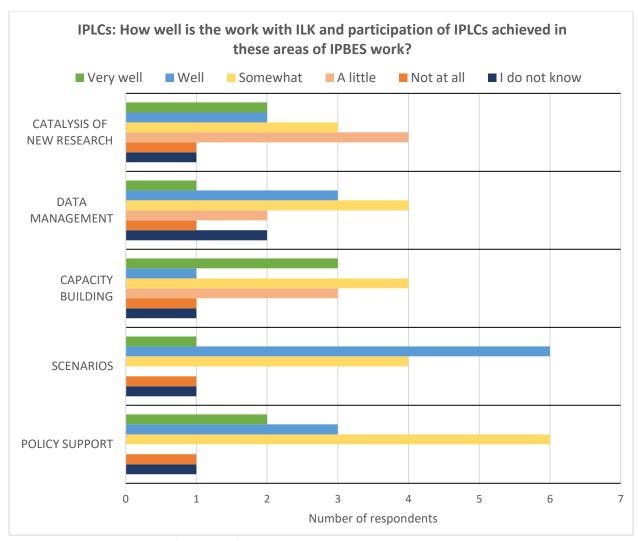


Figure 12: IPLC respondents' ratings of work with ILK and IPLC participation in other IPBES activities.

4.1.9.1 What works well

Respondents also made the following qualitative comment about positive aspects of work with ILK and IPLC participation in other IPBES activities:

• Respondents noted that there has been participation by IPLCs in IPBES scenarios work.

4.1.9.2 Challenges

Respondents also made the following qualitative comment about challenges relating to work with ILK and IPLC participation in other IPBES activities:

• Respondents noted that in general other aspects of IPBES work may not be developed in relation to IPLCs and work with ILK, or that they are not aware of what is taking place.

4.1.9.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to work with ILK and IPLC participation in other IPBES activities:

- Capacity-building for IPLCs was highlighted by many respondents as a key need and area for development, as this could enhance IPLC participation in IPBES, as well as support a new generation of IPLCs; and
- Policy support related to IPLCs, and catalysis of new research and funding were also highlighted as important areas for further development.

4.1.10 IPLC participation in the IPBES Plenary

There was a divergence in views on meaningful IPLC participation in sessions of the Plenary (see figure 13). While three respondents did not participate in sessions of the Plenary and therefore could not answer, the remaining 12 responses rated the participation by IPLCs as being achieved very well to poorly.

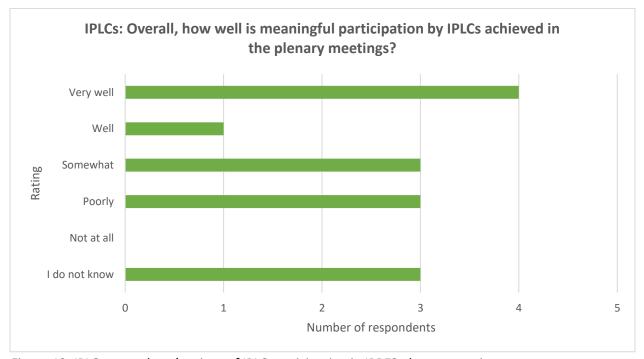


Figure 13: IPLC respondents' ratings of IPLC participation in IPBES plenary meetings.

4.1.10.1 What works well

Respondents also made the following qualitative comments about positive aspects of IPLC participation in plenary meetings:

- Some respondents noted that IPLCs were well involved in the collective work of the IPLC caucus both before and during the Plenary sessions; and
- Plenary participation was noted by some participants to be positive.

4.1.10.2 Challenges

Respondents also made the following qualitative comments about challenges relating to IPLC participation in plenary meetings:

- Respondents highlighted significant challenges during Plenary sessions, including limited
 opportunities for IPLC interventions and participation. This leaves only direct contact with
 individual governments as modality for intervention, and in practice, this is difficult as
 governments have little free time during the Plenary sessions; and
- A lack of funding for IPLC participation in sessions of the Plenary was also highlighted as a key issue.

4.1.10.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to IPLC participation in plenary meetings:

- To improve the participation of IPLCs at sessions of the Plenary, respondents recommended the development of a clear process for IPLC participation in the Plenary, with more time for IPLC interventions;
- IPLC participation could also be enhanced via side events giving more visibility and opportunities to share knowledge with IPLCs; and
- Funding and support for IPLC participants is also key.

4.1.11 Diversity

When asked about the diversity of IPLC participants involved in IPBES activities, eight respondents rated diversity as good or great, while five noted only some diversity, and one noted IPBES activities as not very diverse (see figure 14).

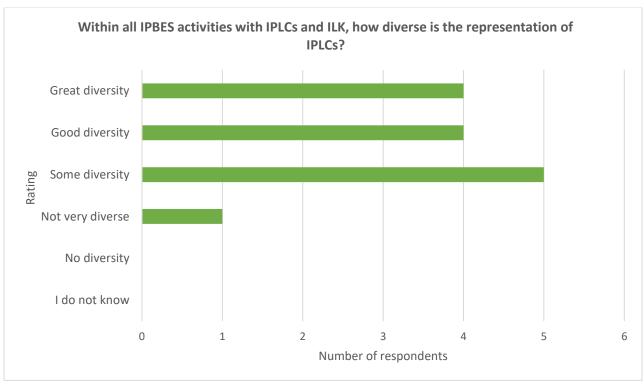


Figure 14: IPLC respondents' ratings of diversity of IPLCs within IPBES activities.

4.1.11.1 What works well

Respondents also made the following qualitative comments about positive aspects of diversity of IPLCs within IPBES activities:

- IPLCs from all seven socio-cultural regions are represented in IPBES activities;
- A good gender balance is achieved, with another respondent noting that Indigenous elders and youth are also involved in dialogues;
- This diversity brings different perspectives and grounds for theoretical discussions with IPLC representatives but also with researchers; and
- Participation by local communities (as well as Indigenous Peoples) was noted as important, as part of the diversity that IPBES should be striving towards.

4.1.11.2 Challenges

Respondents also made the following qualitative comments about challenges relating to diversity of IPLCs within IPBES activities:

- While each region may be represented at workshops, the number of participants from each region can be unbalanced, often depending on where the workshop is being held;
- Indigenous youth are often not included as participants;
- Funding is a key issue, in particular as participants from "Western Europe and Other Group" countries cannot receive funding, which greatly limits their participation;
- Language barriers are a challenge, as this prevents many IPLCs from fully participating;
 and
- While local community participation does occur, it was noted that they are fewer in number than Indigenous participants.

4.1.11.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to diversity of IPLCs within IPBES activities:

- More Indigenous youth representatives would help to address intergenerational gaps in decision-making, and also promote more inclusive and holistic approaches to problemsolving;
- Providing funding to Western Europe and Other Group participants would enhance diversity and balance;
- Enhanced interpretation and translation would better support participation by other language groups; and
- Defining a clear outreach and engagement strategy for local communities is important.

4.1.12 Overarching comments / what should IPBES be aiming for in the coming years?

IPLC respondents made a series of overarching comments, including reflections on what IPBES could be aiming for in the coming years in terms of work with ILK and participation of IPLCs, including:

- It will be important to continue to provide evidence for the ways that IPLCs support biodiversity conservation and sustainable use, while further addressing ILK principles, values and spirituality;
- More methodologies based on the knowledge systems and traditions of IPLCs could be used, in collaboration with Indigenous scholars;
- More space could be created to demonstrate how a dialogue between knowledge systems can be created and sustained, and how to further develop intercultural methods;

- Fieldwork and connections to communities should be enhanced wherever possible;
- Free, prior and informed consent needs to be reiterated at each stage of the IPLC engagement process and community protocols should continue to be respected;
- Working groups of IPLCs could be created to build their own inputs into assessments;
- Multiple respondents suggested the creation of a platform for IPLCs that enhance the continuity of their contributions, including after IPBES activities;
- Support and capacity-building could be provided so that IPLCs can develop assessments or chapters within assessments based on ILK and appropriate methodologies;
- There is a need for enhanced capacity-building and work with IPLC youth, which could include fellowship or mentoring programs, or a program of internships for IPLCs;
- More coherent and consistent follow-up and strategies for implementation after an assessment is finished are needed;
- New ways could be found to value and support IPLC contributions, including developing financial mechanisms to support IPLC engagement, so that IPLCs can continue to participate in IPBES in a sustainable way;
- The ILK task force and technical support unit could be better supported, including by having new members and extra funding, and engaging IPLCs in the work of the technical support unit;
- New ways need to be found to connect with policymaking at national levels, including ILK platforms, to effect real change at national levels;
- Regional and national-level structures could be created to organize meetings at these scales and to promote the development of national public policies that consider IPLC views and needs. Such structures would also encourage more IPLCs to read IPBES assessments and join IPBES processes; and
- Enhanced coordination across different conventions and processes at the international level could be of benefit.

4.2 Surveys for assessment authors: results

4.2.1 General information

Eighteen people partially or fully completed the survey. Ten respondents were involved in the Global Assessment of Biodiversity and Ecosystem Services. All six chapters of the Global Assessment were represented by at least one respondent in the survey. Eight respondents were involved in the Assessment of the Diverse Values and Valuation of Nature. Respondents participated in the writing process of either Chapters 2, 3, 5, or 6. Five respondents were involved in the Sustainable Use of Wild Species Assessment, in either Chapters 1, 2, 3 or 4.

Most of the respondents were lead authors (11). Some were co-chairs, coordinating lead authors, or fellows. For respondents involved in multiple assessments, their roles often varied from one assessment to another.

Respondents had various backgrounds, among them agrarian studies, anthropology, biology, conservation, ecology, ethnology, environmental sciences, food studies, Hawaiian studies, Indigenous studies, and philosophy.

Nationalities of respondents were as follows: Brazil, France, Hungary, Kyrgyzstan, Mexico, Namibia, Nepal, Peru and New Zealand, Tanzania, Spain, and United States of America. Four respondents identified as Indigenous: Native Hawaiian, Quechua from Peru, Bugu tribe of the Kyrgyz People, and Newar from Nepal.

4.2.2 Assessment scoping

Overall, many (5) respondents were not aware of the extent to which ILK was included in the scoping document, with many others (7 of 18) reporting that ILK was somewhat considered, while only four rated it as well considered, and nobody reported that it was considered in detail (see figure 15).

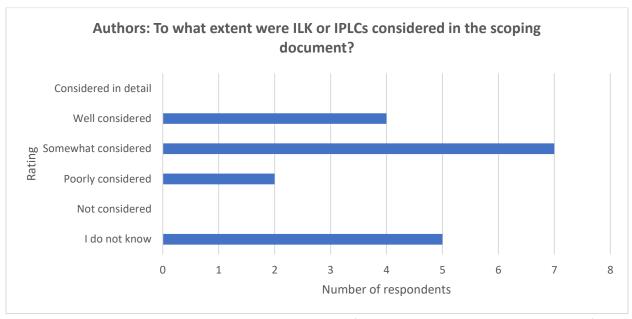


Figure 15: Author responses regarding the consideration of ILK and IPLCs in the scoping document for their assessments.

4.2.2.1 What works well

Respondents also made the following qualitative comments about positive aspects of consideration of ILK and IPLCs in the scoping document for their assessments:

Global Assessment

- Respondents noted that the Global Assessment scoping document did include some mentions of ILK and IPLCs. Some respondents found that the scoping document had good consideration of ILK and IPLC issues; and
- The Global Assessment scoping document clearly stated that ILK can and will be considered and that IPLCs will contribute to the assessment as authors. It thus helped to make clear to the co-chairs and all experts invited to join the assessment that ILK and interactions with IPLC would be an integral part of the assessment.

Values Assessment

IPLCs and ILK were well considered in the Values Assessment scoping process compared
to previous assessments, almost always as an example of the groups whose values need
to be considered or as those who could benefit from the assessment.

Sustainable Use Assessment

- The Sustainable Use Assessment scoping document had good consideration of ILK and IPLC issues; and
- The Sustainable Use scoping document considerably facilitated inclusion of ILK and participation of IPLCs in the Sustainable Use Assessment process.

4.2.2.2 Challenges

Respondents also made the following qualitative comments about challenges relating to consideration of ILK and IPLCs in the scoping document for their assessments:

Global Assessment

- IPLCs did not seem to participate in the Global Assessment scoping process; and
- The Global Assessment scoping document facilitated the inclusion of ILK, but not necessarily participation by IPLCs.

Values Assessment

 No sections of the Values scoping document specifically addressed how ILK should be sourced and incorporated into each of the chapters, nor how IPLCs would participate in the assessment process.

Sustainable Use Assessment

• The Sustainable Use scoping document was noted to be mostly developed by scientists; and ensuring the meaningful participation of IPLCs in the assessment remained a challenge.

4.2.3 Conceptualization of key themes

Overall, IPLC conceptualizations were only seen to somewhat influence the framing of the key themes of the assessments (see figure 16).

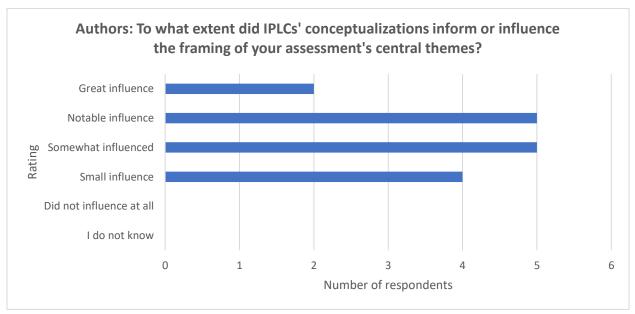


Figure 16: Author ratings of the extent to which IPLC conceptions informed the central themes of the assessment.

4.2.3.1 What worked well

Respondents also made the following qualitative comments about positive aspects of the extent to which IPLC conceptions informed the central themes of the assessments:

Global Assessment

• For some authors, IPLCs' conceptualizations were central to the framing of the Global Assessment.

Values Assessment

 Respondents noted that demonstrating the diversity of values of nature is at the heart of the Values Assessment. Thus, many authors had a general understanding of the importance of integrating ILK and IPLC values and conceptualizations.

Sustainable Use Assessment

• Respondents reported that IPLC conceptualizations informed the framing of central themes of the Sustainable Use assessment.

4.2.3.2 Challenges

Respondents also made the following qualitative comments about challenges relating to the extent to which IPLC conceptions informed the central themes of the assessments:

Global Assessment

- For some Global Assessment authors, the assessment was mostly framed in terms of a natural science focus on biodiversity;
- Others noted that while ILK and IPLC conceptions were present in the Global Assessment, they were often not a central element when framing a chapter. The approach to the concept of "transformative change" was given as an example: It included a description of how IPLCs as rights holders, knowledge holders and stakeholders are important to transformative change, but it did not question what transformative change could mean from an IPLC perspective, or which IPLC concepts could show transformative potential; and
- Some respondents noted that several sections in the Global Assessment included ILK and IPLCs conceptions, such as nature's contributions to people around medicine or food, but other sections did not.

Values Assessment

- Overall, conceptualizing key IPLC elements was a challenge as in general the assessment was developed by non-IPLC academics;
- According to some respondents, work with IPLC conceptualizations varied by chapter. In chapters that did not have IPLC scholars, or where IPLC scholars' contributions were overridden by other conceptualizations, IPLC conceptualizations did not tend to influence chapter-level framings; and
- Some respondents also noted that ILK and IPLC conceptions tended to be included briefly
 in the report or put into boxes rather than included with as much weight as other framings.

Sustainable Use Assessment

- Some challenges were identified by authors, including difficulties in finding literature about IPLC conceptions or addressing local knowledge systems in a global-scale assessment; and
- There were also variations in the extent to which IPLC conceptualizations and knowledge were included in the assessment according to the topic and expertise of lead authors. For example, ILK knowledge holders and ILK experts were invited to contribute to Chapter 2, by highlighting customary values, norms or practices, and their conceptualizations became core features. On the other hand, ILK and IPLC influence may have been less developed in other chapters.

4.2.3.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to the extent to which IPLC conceptions informed the central themes of the assessments:

Global Assessment

- To ensure that IPLC conceptualizations are central to an assessment, more representatives from IPLCs could be included in the scoping process; and
- An IPLC expert team could produce a chapter entirely based on their own conceptualizations and methods based on ILK and IPLC systems of learning and representing knowledge.

Values Assessment and Sustainable Use Assessment

- All co-chairs should support chapter authors to include IPLC conceptualizations from the beginning of the assessment process; and
- At least one contributing lead author that is an IPLC scholar should be included in each chapter team, and at least one other IPLC lead author and/or fellow should be included in each chapter team.

4.2.4 Methods: Transdisciplinary and interdisciplinary author teams for working with ILK

Overall, transdisciplinary and interdisciplinary teams were considered to be effective by seven respondents, while four found them to be somewhat effective. Meanwhile, two found them to be highly effective and two found them to be only slightly effective (see figure 17).

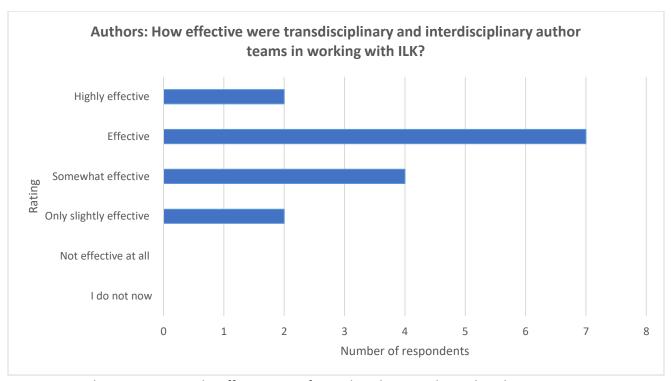


Figure 17: Author responses on the effectiveness of transdisciplinary and interdisciplinary teams.

4.2.4.1 What works well

Respondents also made the following qualitative comments about positive aspects of the effectiveness of transdisciplinary and interdisciplinary teams:

All assessments

- Having a diversity of authors working on a chapter, including from different world regions, was considered to be positive;
- Working in trans or interdisciplinary teams generally raised awareness about ILK issues among authors who do not typically work within this area;
- Author team members were in general respectful of others' views and in general social scientists and ecologists could work well together;
- Respondents highlighted that the work on ILK was largely implemented through the ILK liaison group and the ILK technical support unit to ensure that ILK was included in all chapters coherently and in aligning cross-chapter issues; and

• The Values Assessment authors' teams were perceived to be more interdisciplinary and multidisciplinary than the Global Assessment's authors.

4.2.4.2 Challenges

Respondents also made the following qualitative comments about challenges relating to the effectiveness of transdisciplinary and interdisciplinary teams:

All assessments

- Some researchers faced challenges in understanding each other's disciplines, and some did not know methodologies for working in trans- or interdisciplinary teams;
- IPLCs and ILK experts experienced a greater burden of work because they needed to understand the full picture of the chapter and do the additional work on ILK.

4.2.4.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to the effectiveness of transdisciplinary and interdisciplinary teams:

All assessments

• More social scientists, anthropologists and IPLCs would benefit the author teams so that there are more people to carry out the work needed on ILK.

4.2.5 Methods: IPLCs as authors

In general, authors gave mixed views of whether IPLCs were able to participate in author teams (see figure 18), often depending on their experiences in specific chapters.

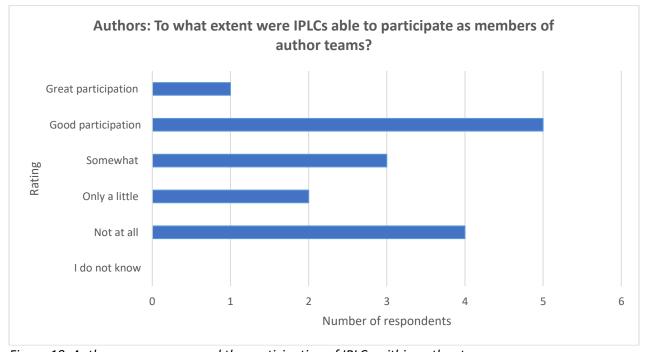


Figure 18: Author responses around the participation of IPLCs within author teams.

4.2.5.1 What worked well

Respondents also made the following qualitative comments about positive aspects of the effectiveness of engaging IPLCs within author teams:

Values and Sustainable Use assessments

- More IPLCs participated as authors in the Values and Sustainable Use assessments than in the Global Assessment;
- For example, as there were two IPLC scholars in Chapter 3 of the Values Assessment, they
 could more deeply explore IPLC perspectives.

4.2.5.2 Challenges

Respondents also made the following qualitative comments about challenges relating to engaging IPLCs as authors:

Global Assessment

- In the Global Assessment, very few authors identified as IPLCs in the author teams, and IPLC representatives noted this during ILK dialogues;
- There were no local community representatives in the author group; and
- The number of IPLCs per chapter was also never high enough to allow their participation in all chapter subgroups.

Values and Sustainable Use Assessments

- Most chapter author teams still did not include IPLCs;
- Many IPLC authors have a great burden of work as they may need to negotiate and justify
 ILK methodologies with other members of their author teams; and
- Much of the burden of ensuring IPLCs and ILK can be included in an assessment team falls on the IPLCs themselves.

4.2.5.3 Ways forward

Respondents also made the following qualitative comments about ways forward for enhancing the effectiveness of engaging IPLCs as authors:

All assessments

- IPBES should engage more IPLC as authors;
- Non-IPLC authors need capacity-building on ILK methods throughout the assessment process; and
- Some of the topics the fellows programme covers on ILK methods and IPLC participation should be extended to all authors.

4.2.6 Methods: Contributing authors

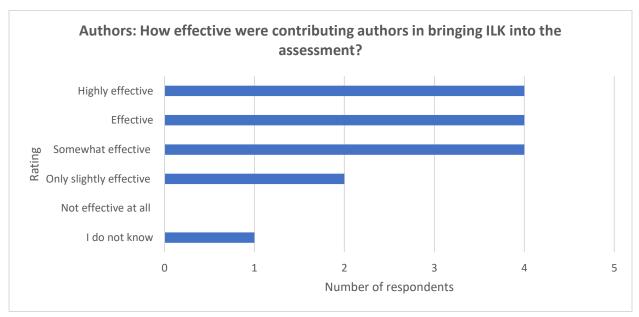


Figure 19: Author responses around the effectiveness of engaging contributing authors to enhance expertise on ILK in an assessment.

Engaging contributing authors to support work on ILK was seen as highly effective, effective or somewhat effective by twelve respondents, with responses equally distributed between them. Two authors reported that contributing authors were engaged only slightly effectively (see figure 19).

4.2.6.1 What works well

Respondents also made the following qualitative comments about positive aspects of the effectiveness of engaging contributing authors to enhance expertise on ILK in an assessment:

All assessments

- Some respondents noted that the engagement of contributing authors on ILK has improved with successive assessments;
- IPLC contributing authors were essential when there are large gaps in literature over specific topics which required IPLC/ILK perspectives.

Sustainable Use Assessment

• For the Sustainable Use Assessment, contributing authors who were willing and available to provide ILK contributions made a significant impact on the inclusion of ILK in the final version.

4.2.6.2 Challenges

Respondents also made the following qualitative comments about challenges relating to the effectiveness of engaging contributing authors to enhance expertise on ILK in an assessment:

All assessments

- It can be very difficult to engage IPLC contributing authors due to language constraints.
 Having to use English as the primary means of communication was challenging for many of the IPLC contributing authors; and
- Another challenge, especially for the Global Assessment, was that Indigenous scholars
 declined invitations to contribute because they were extremely busy and could not
 dedicate their time.

4.2.6.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to the effectiveness of engaging contributing authors to enhance expertise on ILK in an assessment:

All assessments

- More consistent IPLC engagement is needed, beyond the dialogues and reviewing drafts, to favor direct inputs to the assessment, including through engaging contributing authors; and
- This could be supported by translation of drafts and other forms of feedback to enhance collaboration.

4.2.7 Methods: Review of peer-reviewed literature

All respondents found that review of peer-reviewed literature was highly effective, effective or somewhat effective (see figure 20).

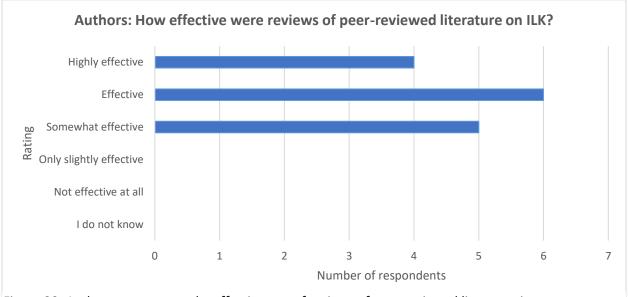


Figure 20: Author responses on the effectiveness of reviews of peer-reviewed literature in assessments.

4.2.7.1 What worked well

Respondents also made the following qualitative comments about positive aspects relating to reviews of peer-reviewed literature in assessments:

- In the Values Assessment, conducting a single, coordinated literature review across all chapters greatly enhanced the range of materials that could be assessed;
- Use of comprehensive search strings enhanced access to papers on ILK (e.g., for the Values and Sustainable Use assessments);
- For some topics, e.g., Buen Vivir in the Values Assessment, extensive peer-reviewed literature was available;
- Some assessments included as many papers by IPLC scholars as possible; and
- In some cases, networks of contributing authors were engaged to carry out literature reviews.

4.2.7.2 Challenges

Respondents also made the following qualitative comments about challenges relating to reviews of peer-reviewed literature in assessments:

- There is insufficient ILK literature on many topics, leading to large gaps in available information;
- Existing reviews that expand from the local to larger scales are quite rare, and it was unclear within some author teams how to synthesize local studies to a global scale;
- As interest in ILK is relatively recent, papers may only go back to the 1980s;
- Access and use of materials in languages other than English was a challenge and greatly limited the materials available;
- Papers on ILK written by authors who did not work themselves with IPLCs may be unreliable or misrepresent ILK;
- The process of reviewing papers, which includes reading and coding them, requires time and sufficient funds. Multiple respondents emphasized not having enough authors in their teams and not enough time to carry out comprehensive literature reviews on ILK; and
- Peer-reviewed literature may be relied on too heavily in the assessment process in relation to ILK, as other materials and methods may be more important.

4.2.7.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to reviews of peer-reviewed literature in assessments:

- More authors working specifically on ILK are needed for carrying out effective literature reviews;
- Coordinating literature reviews across chapters may be a good approach; and

• A method for verifying the background of scholars to ensure their research with IPLC is legitimate is needed.

4.2.8 Methods: Review of "grey" literature and other materials

Seven authors found that reviews of "grey" literature and other materials were somewhat effective, while 6 found them to be effective. No authors found this to be highly effective (see figure 21).

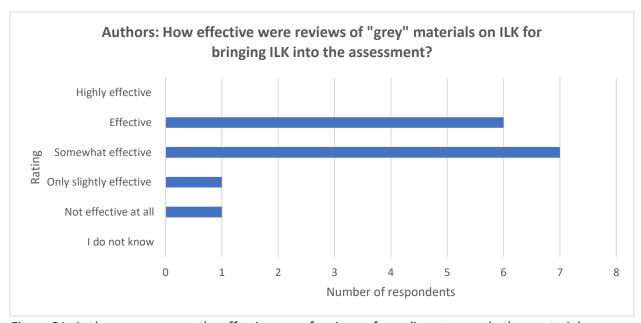


Figure 21: Author responses on the effectiveness of reviews of grey literature and other materials.

4.2.8.1 What worked well

Respondents also made the following qualitative comments about positive aspects relating to reviews of grey literature and other materials in assessments:

Global Assessment

• There were several reports by Indigenous Peoples' organizations cited in the Global Assessment. In particular, the Local Biodiversity Outlook Report was widely used to highlight the breadth and depth of IPLC practices for environmental stewardship.

Values and Sustainable Use Assessments

- The option to use grey literature, and a recognition of its legitimacy, was noted as very important for working with ILK;
- The review of grey materials on ILK was enhanced by the ILK liaison groups as a whole, which found and shared important resources; and
- Some author teams also ensured the literature was an accurate representation of ILK, by running verifications on authors' backgrounds and scholarship.

4.2.8.2 Challenges

Respondents also made the following qualitative comments about challenges relating to reviews of grey literature and other materials in assessments:

Global Assessment

- There was no emphasis on the "grey" literature on ILK in the instructions given to authors, who thus did not prioritize it; and
- Grey literature and other materials were hard to find, and IPLC literature was missing on many key topics, e.g., ecology, as most grey literature focused on rights issues or health.

Values and Sustainable Use Assessments

- For both assessments the use of academic literature remained a priority over grey literature;
- The time and effort needed to consistently and coherently find, gather and analyse grey literature was an obstacle to small teams working on tight deadlines, and some forms of "materials" e.g., videos or dances, remained relatively unexplored; and
- Predominance of English limited the retrieval and use of grey literature.

4.2.8.3 Ways forward

Respondents also made the following qualitative comment about ways forward relating to reviews of grey literature and other materials in assessments:

 More authors working specifically on ILK are needed for carrying out effective grey literature reviews.

4.2.9 Methods: Call for contributions

Four authors found the call for contributions to be only slightly effective, with four others reporting that they did not know. Meanwhile, three found it to be somewhat effective, and three found it to be effective. Only one author found it to be highly effective (see figure 22).

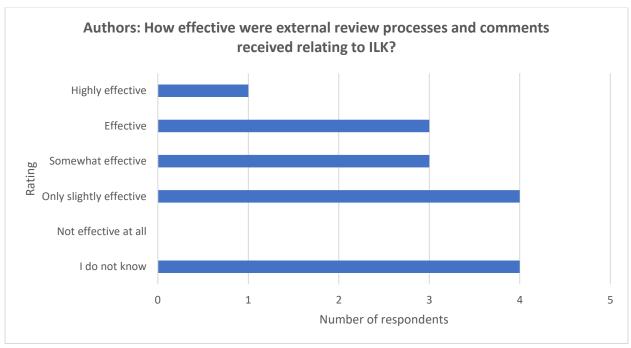


Figure 22: Author responses on the effectiveness of the call for contributions on ILK.

4.2.9.1 What worked well

Respondents also made the following qualitative comments about positive aspects relating to the call for contributions on ILK:

Global Assessment

• The call for contributions helped to provide an important list of resources.

Values and Sustainable Use Assessments

- For the Values Assessment, the call for contributions was an important strategy that complemented other methods for collecting data;
- The call provided key contributions from legitimate sources; and
- The technical support unit on ILK facilitated the process.

4.2.9.2 Challenges

Respondents also made the following qualitative comments about challenges relating to the call for contributions on ILK:

Global Assessment

The call for contributions did not have a clear mechanism;

- The call came too late in the process to be fully useful;
- Most authors were too busy to take the contributions fully into account; and
- Most contributors were from IPLCs in the Global North, while regions such as South America, Southeast Asia, sub-Saharan Africa, and the Caribbean were poorly represented.

Values and Sustainable Use Assessments

• Many respondents reported that they did not know how well the call for contributions functioned, suggesting limited uptake.

4.2.9.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to the call for contributions on ILK:

- The call for contributions should be released as early as possible in the assessment process to give time for analysis uptake of materials; and
- More ILK authors may be needed to fully engage with the contributions received.

4.2.10 Methods: Dialogue workshops

Nine of 15 authors reported that the dialogue workshops were highly effective, while a further 3 found them to be effective, while one respondent each found them to be somewhat effective or only slightly effective (see figure 23). Overall, this means that the dialogue workshops were the most highly rated method by authors.

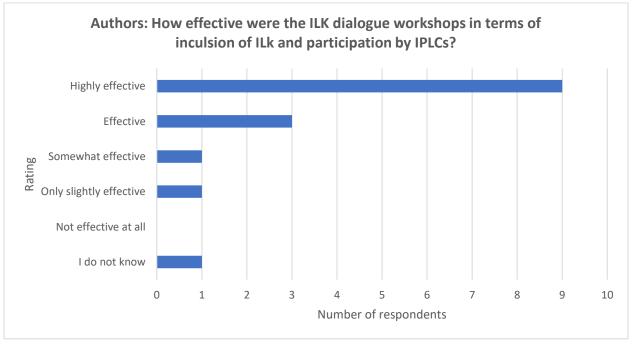


Figure 23: Author responses on the effectiveness of the dialogue workshops.

4.2.10.1 What works well

Respondents also made the following qualitative comments about positive aspects relating to dialogue workshops:

Global Assessment

• The 3-day dialogue in Helsinki organized specifically for the Global Assessment's external review process gave the time and space for meaningful participation by IPLC representatives.

Values and Sustainable Use Assessments

- Dialogue workshops tended to be viewed more favorably by authors in the Values Assessment and the Sustainable Use Assessment than the Global Assessment;
- The dialogues were seen as the most effective and inspiring method used in the assessments, and a key step in the inclusion of ILK;
- The dialogues allowed for considerable restructuring of ILK content in the assessments;
 and
- Holding the dialogues in Indigenous territories, with sufficient time for meaningful interactions, was key to the depth of the interactions and knowledge shared.

4.2.10.2 Challenges

Respondents also made the following qualitative comments about challenges relating to dialogue workshops:

Global Assessment

- Many dialogue workshops were held as side events to large meetings, so they could be too short for meaningful engagement, and many potential participants were too busy to participate;
- Workshop participants were also exposed to brief summaries of the draft content, limiting their ability to comment on many issues, or there were no opportunities to follow the process and comment on later drafts; and
- Workshops could potentially become another type of "knowledge extraction" and a source of frustration for participants, unless communication channels and follow up are in place after the workshop.

Values and Sustainable Use Assessments

• There remains a disconnection in some cases between work in the dialogue workshops and work on developing the assessment in the chapter teams.

4.2.10.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to dialogue workshops:

Global Assessment

• The generation of a "listening environment" with ample time for interventions by IPLC participants was highlighted as important.

Values and Sustainable Use Assessments

- Respondents recommended increasing the number of ILK dialogues and inviting Indigenous knowledge holders, thinkers, and scholars;
- Flexibility, ritual, and connection to communities were highlighted as crucial conditions for these workshops to flourish; and
- Greater efforts may be needed to communicate and engage IPLC participants after the dialogues, so they can see how the assessments are being informed by their contributions.

4.2.11 Methods: External review process

Seven authors found the external review processes to be somewhat effective, while three found them effective. Only two found them to be highly effective, and one found them to be only slightly effective (see figure 24).

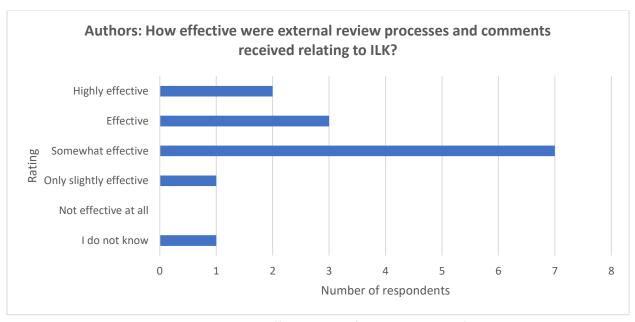


Figure 24: Author responses relating to the effectiveness of external reviews for enhancing ILK content.

4.2.11.1 What works well

Respondents also made the following qualitative comments about positive aspects relating to external reviews:

Global Assessment

• The three-day dialogue workshop organized in Helsinki for the second external review was very effective for enhancing IPLC participation in the review process.

Values and Sustainable Use Assessments

- The review process was noted to be a powerful tool for IPLCs to make critical changes in assessments, especially because the comments must be addressed or responded to; and
- Strong ILK comments provided ILK authors with much needed support within author teams to enhance ILK content.

4.2.11.2 *Challenges*

Respondents also made the following qualitative comments about challenges relating to external reviews:

Global Assessment

 Some chapters received only minor comments related to ILK, which did not lead to substantial changes. Values and Sustainable Use Assessments

- Few ILK comments were received by some chapters during the review processes;
- IPLCs may not be aware of the processes for reviewing documents;
- The academic nature of the discussions around drafts may deter IPLC participation; and
- There is too much reliance on external review of IPLC issues by non-Indigenous scholars who do not understand Indigenous epistemologies, ontologies and ethics.

4.2.11.3 Ways forward

Respondents also made the following qualitative comment about ways forward relating to external reviews:

More IPLC experts or IPLC interest groups to participate in the review processes of IPBES
assessments, and this may need to be facilitated by greater efforts of awareness raising
and translation and communication of documents and processes.

4.2.12 Methods: Overarching recommendations for ways forward

4.2.12.1 Enhancing existing methods

Overall, authors made the following recommendations for enhancing existing methods within IPBES assessments:

- As the author teams are responsible for developing the assessment, enhanced ILK
 expertise is needed in these teams, for example ensuring at least one coordinating lead
 author and several lead authors in each chapter team, with a focus on IPLC scholars;
- A greater focus on understanding and implementing research methodologies based on ILK and traditional ways of learning and sharing knowledge;
- A greater focus within author teams on working with non-written forms of knowledge expression;
- Enhanced capacity-building for all authors, through online meetings and at author meetings, to enhance their capacities to work with ILK and in transdisciplinary teams. This could be supported by an enhanced IPLC presence at author meetings to build capacity and understanding among authors who do not attend the ILK dialogues;
- Funding sources to support IPLC participation more broadly, as many IPLCs are not part of institutions or organizations that can support their participation or the time spent on IPBES activities;
- More communication and engagement outside of dialogue processes to ensure that IPLCs can see how their inputs are influencing the development of assessments;
- Enhanced efforts at building networks and connections with IPLC organizations at international, national and sub-national levels, and keeping them informed throughout

- the assessment cycle, including asking for inputs e.g., relating to contributing authors and reviews; and
- An increased focus on local communities, who tend to be less represented in dialogues and other activities.

4.2.12.2 New methods and approaches

Some author respondents noted that new methods and approaches are not needed, and that the focus should be on enhancing existing methods. Others recommended new, complementary methods and approaches, including:

- A chapter in each assessment devoted solely to ILK, which would give space for IPLCs and ILK researchers to further develop and implement methods, frameworks and representations based on ILK. This would complement rather than replace work on ILK in other chapters;
- The creation of a committee or working group of IPLC participants (and potentially also other experts on ILK) who could comment and advise on assessments from the scoping process to final publication. In this way, IPLCs could directly participate and contribute new ideas and approaches into an assessment, throughout the assessment cycle;
- Organization and coordination of parallel working groups that generate information related to assessment topics (for publishing), which could be an effective way of mobilizing knowledge, recognizing the gaps that are found by the assessments. This could involve reaching out to universities, research institutes and IPLC organizations early in the assessment process; and
- Enhancing IPLC participation in the MEP and other bodies to support work with ILK and IPLCs in assessments and more broadly at IPBES.

4.2.13 Resources and support: Resource documents

Authors were asked to consider the different forms of resources and support available from IPBES.

The majority of respondents found that the approach to working with ILK in IPBES and the methods guide were very useful (see figure 25).

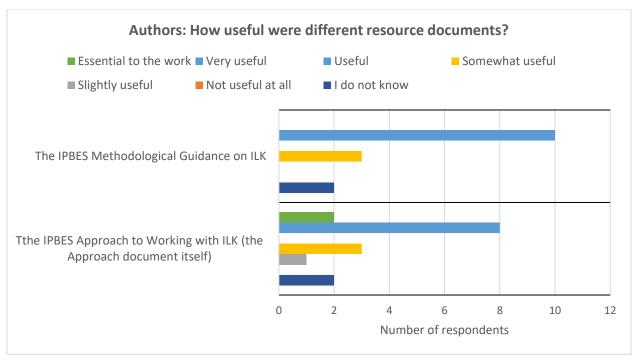


Figure 25: Author responses around the usefulness of the approach to working with ILK and the methodological guidance.

4.2.13.1 What works well

Respondents also made the following qualitative comments about positive aspects relating to the approach to ILK and methodological guidance:

- It was noted that an ILK-inclusive assessment would not be possible without the approach document;
- The approach was useful as a roadmap for including ILK in the assessments, even if the process of including ILK remained challenging;
- The methodological guidance was noted to be detailed and thoughtful; and
- The free, prior and informed consent approach within the methods guide is a very useful resource that should be maintained.

4.2.13.2 *Challenges*

Respondents also made the following qualitative comments about challenges relating to the approach to ILK and methodological guidance:

- Many authors may not read the approach or methodological guidance, particularly authors who do not have a background in working with ILK. This is a problem because they also need to understand the overall approach to ILK in an assessment; and
- It is unclear to what extent IPLCs have agreed upon the methods proposed in the methodical guidance.

4.2.14 Resources and support: ILK liaison group discussions

The majority of respondents (13 of 16) found the ILK liaison group discussions to be very useful or essential to the work (see figure 26).

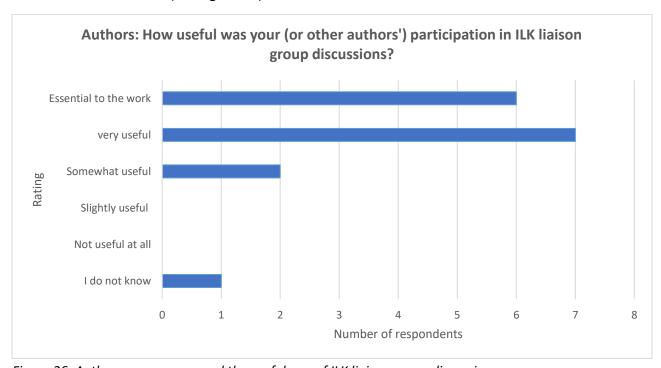


Figure 26: Author responses around the usefulness of ILK liaison group discussions.

4.2.14.1 What works well

Respondents also made the following qualitative comments about positive aspects relating to ILK liaison group discussions:

 The ILK liaison groups provided a crucial venue for discussing methods and making crosschapter connections;

4.2.14.2 *Challenges*

Respondents also made the following qualitative comments about challenges relating to ILK liaison group discussions:

- Time difference challenges prevented some authors from attending ILK liaison group meetings;
- Communicating the discussions and decisions made in the ILK liaison group back to the other authors in their chapters was sometimes a challenge, and as a result some chapters as a whole may have had an incomplete picture of the full process for ILK methods; and
- Some respondents found the ILK liaison group discussions redundant with the work done during other cross-chapter meetings.

4.2.14.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to ILK liaison group discussions:

- The time given to the ILK liaison group meetings and the number of meetings could be expanded;
- One person from each chapter could be nominated to rigorously follow the ILK liaison group discussions; and
- Finding methods and processes to ensure broader chapter uptake of ILK group discussions and decisions would be highly beneficial.

4.2.15 Resources and support: The ILK task force and technical support unit

The majority of respondents (10 of 15) found that the ILK task force and technical support unit were essential to the work (see figure 27).

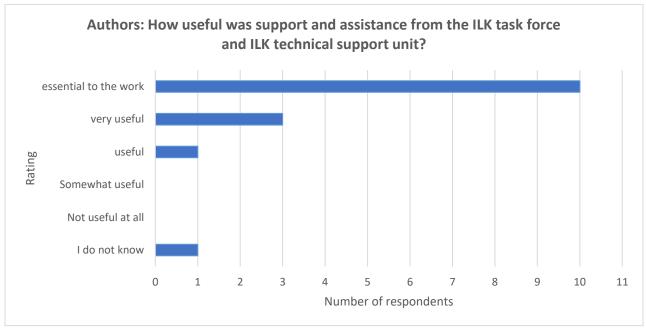


Figure 27: Author responses on the usefulness of support from the ILK task force and technical support unit to work on ILK in assessments.

4.2.15.1 What works well

Respondents also made the following qualitative comments about positive aspects relating to the ILK task force and technical support unit:

 Most respondents found the ILK task force unit and technical support unit essential to the work, providing coordinated guidance and an engine to move activities forward.

4.2.15.2 *Challenges*

Respondents also made the following qualitative comments about challenges relating to the ILK task force and technical support unit:

- Some respondents noted a lack of direct contact with the task force; and
- The technical support unit could benefit from a bigger team.

4.2.15.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to the ILK task force and technical support unit:

• The technical support unit could create an Indigenous internship program to bring more methodologies and two-way communication between IPLCs into the process.

4.2.16 Resources and support: Co-chairs and Coordinating lead authors

The majority of respondents (9 of 14) reported that co-chairs and coordinating lead authors are essential to work with ILK in assessments (see figure 28).

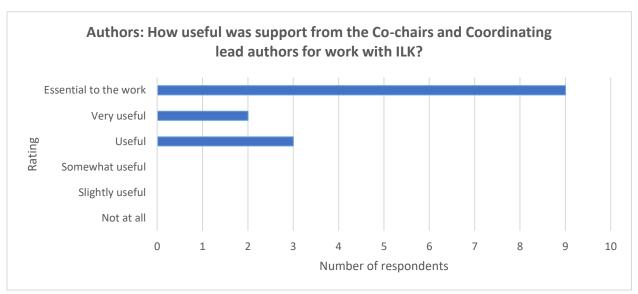


Figure 28: Author responses on the usefulness of support from the co-chairs and coordinating lead authors to work on ILK in assessments.

4.2.16.1 What works well

Respondents also made the following qualitative comments about positive aspects relating to support from the co-chairs and coordinating lead authors:

 Respondents emphasized that co-chairs and coordinating lead authors who were supportive of ILK inclusion were essential to their work.

4.2.16.2 Challenges

Respondents also made the following qualitative comments about challenges relating to support from the co-chairs and coordinating lead authors:

• In cases where coordinating lead authors were not greatly interested in ILK, this resulted in less (or an absence of) ILK content in some chapters.

4.2.16.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to support from the co-chairs and coordinating lead authors:

- It is important to ensure that all co-chairs and coordinating lead authors are at least supportive of ILK, and that at least one is an expert on working with ILK; and
- It is important to enhance the general transdisciplinary nature of author teams.

4.2.17 Resources and support: MEP, IPBES secretariat and assessment technical support units

The majority of respondents (9 of 14) found the assessment technical support units to serve an essential role in supporting work with ILK. Meanwhile, six respondents found that support from the IPBES secretariat and MEP were very useful to work with ILK, while four considered them to provide an essential role (see figure 29).

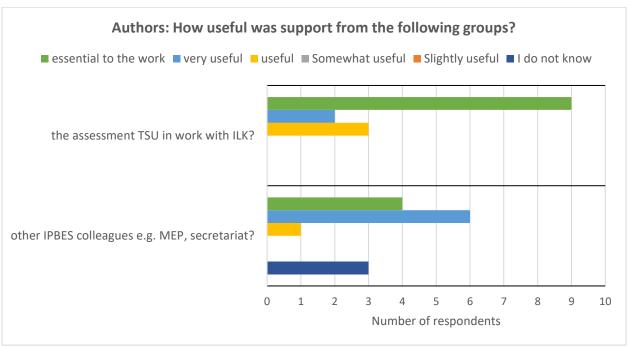


Figure 29: Author responses around the usefulness of support from the assessments' technical support units and the secretariat and MEP.

4.2.17.1 What works well

Respondents also made the following qualitative comments about positive aspects relating to support from the assessments' technical support units and the IPBES secretariat and MEP:

- The Multidisciplinary Expert Panel and IPBES secretariat were supportive in working with ILK, and in providing overall guidance; and
- Assessment technical support units were highlighted for their essential roles.

4.2.17.2 *Challenges*

Respondents also made the following qualitative comments about challenges relating to support from the assessments' technical support units and the IPBES secretariat and MEP:

- Contact with the secretariat and MEP was noted to be sporadic; and
- Some assessment technical support units were noted to be more focused on scientific content than work with ILK.

4.2.18 Resources and support: Other resources or sources of support for work with ILK identified by respondents

Authors were also asked to note other resources or sources of support that they used during the assessments process.

4.2.18.1 What works well

Respondents also made the following qualitative comments about positive aspects relating to other resources or sources of support:

- Outside researchers were noted as key in compiling necessary data and maps for the assessments;
- External IPLC scholars provided essential advice and support; and
- Other organizations, such as SwedBio, were highlighted for their roles in organizing dialogue workshops, particularly in the context of the Global Assessment.

4.2.18.2 Challenges

Respondents also made the following qualitative comments about challenges relating to other resources or sources of support:

• The confidential nature of IPBES assessments limits collaboration with external partners.

4.2.18.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to other resources or sources of support:

- Spaces should be created for more interaction with IPLCs around methods;
- IPBES should be aware of the increasing use of artificial intelligence and other emerging technologies in assessment processes. Since ILK presence on the internet is low, how the use of those technologies might affect future IPBES assessments needs to be considered; and
- A review of ILK in each assessment (like this one) should be conducted soon after each assessment finishes.

4.2.19 ILK in the final assessment chapters

Authors gave mixed reviews of how well they were able to consider and represent different themes of relevance to ILK and IPLCs in the assessments. Contributions by IPLCs to nature (including for example management of biodiversity by IPLCs), nature's contributions to people, and biodiversity status and trends were considered to be the themes that were best considered and included. Values, worldviews and spirituality were mostly reported to be only somewhat included (see figure 30).

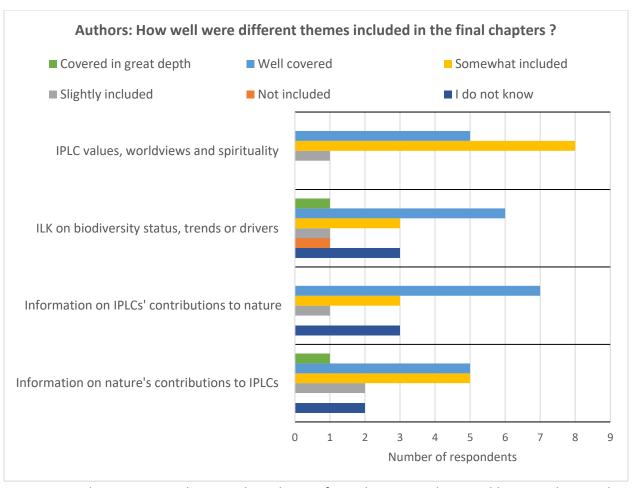


Figure 30: Author responses relating to the inclusion of ILK relating to: values, worldviews and spirituality; biodiversity, status and trends; IPLC's contributions to nature; and nature's contributions to IPLCs.

4.2.19.1 Inclusion of IPLC values, worldviews and spirituality and ILK on biodiversity

What works well

Respondents also made the following qualitative comments about positive aspects relating to the inclusion of IPLC values, worldviews and spirituality and ILK on biodiversity:

- In many chapters, efforts were made to include IPLC values and worldviews;
- For some chapters, e.g., of the Sustainable Use Assessment, systematic review and contributing author text was engaged to build a wide variety of specific examples from many global geocultural regions;
- A respondent involved in the Sustainable Use Assessment highlighted that the section on conceptualizations of Indigenous perspectives drew heavily from the reports of the first and second IPBES ILK dialogue workshops for the assessment in 2019.

Challenges

Respondents also made the following qualitative comments about challenges relating to the inclusion of IPLC values, worldviews and spirituality and ILK on biodiversity:

- Authors are mostly Western scientists, who may struggle to understand and integrate other worldviews; and
- Some respondents also reported that it was harder to include IPLC spirituality than values or worldviews in their chapters.

Ways forward

Respondents also made the following qualitative comments about ways forward relating to the inclusion of IPLC values, worldviews and spirituality and ILK on biodiversity:

- Most respondents noted that greater efforts are needed to engage with worldviews and spirituality, including a rigorous effort and commitment from the beginning of the assessment; and
- Bringing more Indigenous scholars, knowledge holders and elders into the process would greatly support work on values, worldviews and spirituality.

4.2.19.2 Biodiversity status, and trends

What works well

Respondents also made the following qualitative comments about positive aspects relating to ILK and biodiversity status and trends:

- The inclusion of ILK on biodiversity status and trends, was well managed in some of the assessments, e.g., through a review on the transformation of the biosphere from an IPLC perspective; and
- ILK knowledge holders and ILK researchers were invited to contribute to various sections of the assessments by highlighting customary values, norms and practices from IPLCs.

Challenges

Respondents also made the following qualitative comments about challenges relating to ILK and biodiversity status and trends:

- One respondent noted that there are knowledge gaps in the literature on ILK of different biological entities; and
- An author of the Values Assessment emphasized that more should have been included about the importance of bioculturality for biodiversity.

Ways forward

Respondents also made the following qualitative comments about ways forward relating to ILK and biodiversity status and trends:

 More can be done to include ILK on status and trends in biodiversity by seeking more ILK contributions and more ILK knowledge holders who could provide direct insights.

4.2.19.3 Nature's contributions to people

What works well

Respondents also made the following qualitative comments about positive aspects relating to ILK and nature's contributions to people:

- For the Global Assessment, one author noted they had a good, dedicated team working on this subject; and
- Rich literature was noted to be available.

Challenges

Respondents also made the following qualitative comments about challenges relating to ILK and nature's contributions to people:

- It was also noted that literature is highly dispersed and great efforts are needed to bring it together;
- The Global Assessment mostly used scientific indicators and not ILK indicators, and ILK was incorporated only in the text, mostly as examples;
- For the Values Assessment, a respondent emphasized knowledge gaps on this topic; and
- The concept of "nature's contributions to people" itself may be a challenge when working with IPLCs.

4.2.19.4 IPLCs' contributions to nature

What works well?

Respondents also made the following qualitative comments about positive aspects relating to IPLCs' contributions to nature:

 The Global Assessment was the first IPBES assessment to have a separate section on this subject.

Challenges

Respondents also made the following qualitative comments about challenges relating to IPLCs' contributions to nature:

- Time needed to be taken in some chapter teams to reach agreement that "nature's contributions to people" are a two-way process whereby people can also contribute to nature; and
- A Values Assessment author noted that there are still knowledge gaps on this subject.

4.2.20 Scenarios, policymaking and rights and justice

In general, authors responded that information on IPLCs and ILK around scenarios, policymaking and rights and justice was less well covered in their assessments than the previously discussed themes of values, worldviews and spirituality; biodiversity, status and trends; IPLC's contributions to nature; and nature's contributions to IPLCs.

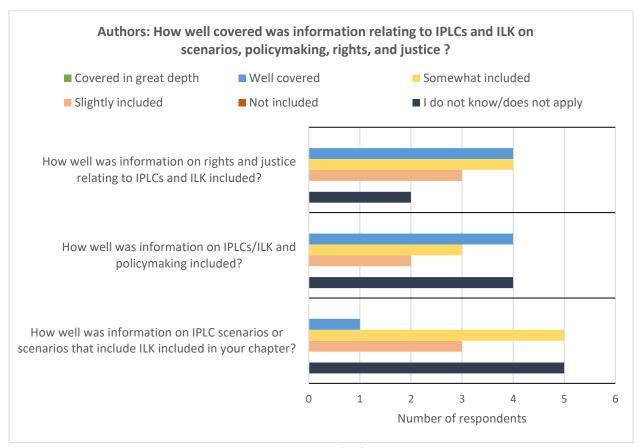


Figure 31: Author responses regarding the coverage of information on IPLCs and ILK around scenarios, policymaking and rights and justice.

4.2.20.1 Policymaking

What works well?

Respondents also made the following qualitative comments about positive aspects relating to the inclusion of information relating to ILK, IPLCs and policymaking:

- Chapter 2 of the Sustainable Use Assessment included a comparison of global policies on sustainable use to local and global indicators and measures of wellbeing.
- In the Values Assessment, efforts were made to acknowledge the importance of the
 potential inclusion of IPLC proposals, TICCAs (Territories and Areas Conserved by
 Indigenous Peoples and Traditional and Local Communities), and the concept of Buen Vivir.

4.2.20.2 Scenarios

What works well

Respondents also made the following qualitative comment about positive aspects relating to the inclusion of information relating to ILK, IPLCs and scenarios:

• In some assessments, significant efforts were made to include contributing authors on scenarios.

Challenges

Respondents also made the following qualitative comment about challenges relating to the inclusion of information relating to ILK, IPLCs and scenarios:

- There is limited written literature in English on the subject and therefore large knowledge gaps;
- Some concepts such as visions, scenarios or future did not particularly resonate for IPLCs and did not lead to specific contributions during the call for contributions; and
- Future scenarios and Earth Stewardship were the main themes ILK contributed to in the Values Assessment, but no IPLC authors (and perhaps no IPLC contributing authors) participated in writing these sections.

4.2.20.3 Rights and justice

Respondents also made the following qualitative comment about challenges relating to the inclusion of information relating to ILK, IPLCs and rights and justice:

Challenges

• For the Global Assessment, the inclusion of information on rights and justice relating to IPLCs and ILK seemed to be a very controversial topic.

4.2.21 Knowledge gaps

In general, authors responded that knowledge gaps relating to ILK and IPLC issues were well considered or somewhat considered in the assessments (see figure 32).

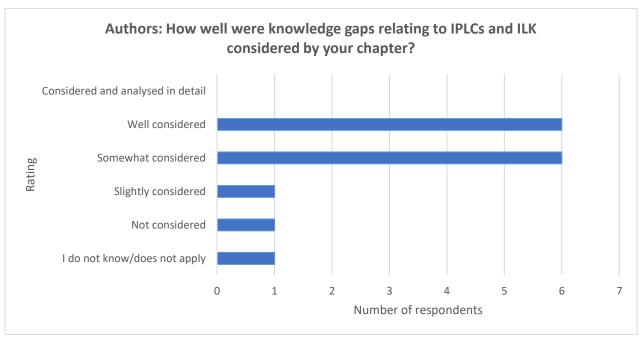


Figure 32: Author responses regarding knowledge gaps relating to IPLCs and ILK.

4.2.21.1 What works well

Respondents also made the following qualitative comment about positive aspects relating to the inclusion of information about knowledge gaps relating to IPLCs and ILK:

• Gaps in available knowledge were clearly identified in the assessments, particularly in relation to the diversity of IPLCs and their practices.

4.2.21.2 *Challenges*

Respondents also made the following qualitative comment about challenges relating to the inclusion of information about knowledge gaps relating to IPLCs and ILK:

 Often it is difficult to identify knowledge gaps because new key search words do not work for the older literature, so even smaller knowledge gaps look larger.

4.2.21.3 Ways forward

Respondents also made the following qualitative comment about ways forward relating to the inclusion of information about knowledge gaps relating to IPLCs and ILK:

• A respondent highlighted that these gaps could partially be filled by Indigenous materials that are only available in Indigenous languages or are not peer-reviewed.

4.2.22 Representation of ILK in the Assessments

Authors were asked how effectively they were able to engage different ways of representing ILK in their chapters. In general, they gave mixed reviews of how well they were able to represent ILK. Case studies were seen as the most effective way used, followed by text, and figures and graphics. Art, songs and poetry were seen to be underutilized, and some difficulties were reported in the development of cross-chapter narratives throughout an assessment (see figure 33).

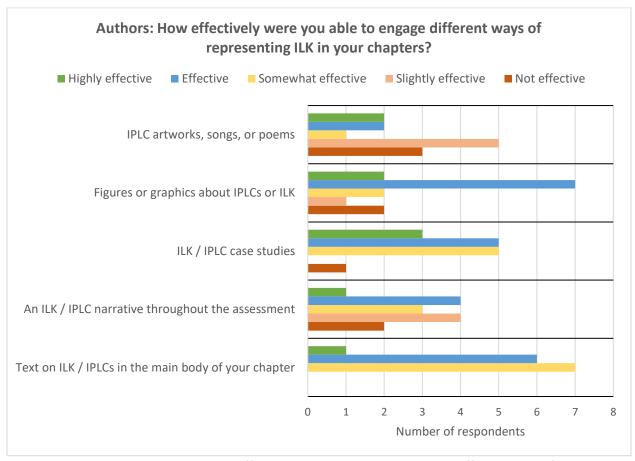


Figure 33: Author responses as to how effectively they were able to engage different ways of representing ILK in their chapters.

4.2.22.1 What works well

Respondents also made the following qualitative comments about positive aspects relating to different ways of representing ILK in chapters:

Global Assessment:

- The Global Assessment experimented with how to bring ILK into a linear, text-based report, with boxes, interwoven text (science and ILK) and separate longer sections with ILK; and
- The Global Assessment made some use of photos and artworks.

Values and Sustainable Use Assessments:

- In the Values and Sustainable Use Assessments, respondents reported that IPLC concepts and materials (e.g., artworks) were used to represent ILK; and
- Chapter 2 of the Sustainable Use Assessment included a non-translated version of a Native Hawaiian creation chant to demonstrate the strong connections between people and places that guide interactions with wild species.

4.2.22.2 Challenges

Respondents also made the following qualitative comments about challenges relating to different ways of representing ILK in chapters:

- The Global Assessment did not make use of songs or poems;
- Respondents noted that the current assessment process is rooted in a Western, anthropocentric perspective, often with a focus on quantitative data;
- In general ILK is subject to scientific reinterpretation, as mostly it is not provided directly by or developed with IPLCs; and
- Assessments may struggle to form a coherent ILK narrative between chapters.

4.2.22.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to different ways of representing ILK in chapters:

- Continue to establish processes that enable IPLCs to directly contribute their knowledge and values into assessments;
- By empowering IPLCs to represent themselves, a more inclusive and diverse range of perspectives can be incorporated into the assessments;
- More IPLC artwork, songs, and poems could be engaged to broaden modes of ILK expression and representation;
- To make the assessment process more interactive and more effective for representing ILK,
 IPBES could consider developing web-based assessments; and
- Videos could be effective in conveying information and giving voice to IPLCs. QR codes could be included within the assessment, allowing users to scan them and access relevant video content.

4.2.23 ILK in the summary for policymakers

Seven respondents responded that there was some representation of ILK in the summary for policymakers of their assessments, while five found ILK to be well represented and one found it to be represented in great detail (see figure 34).

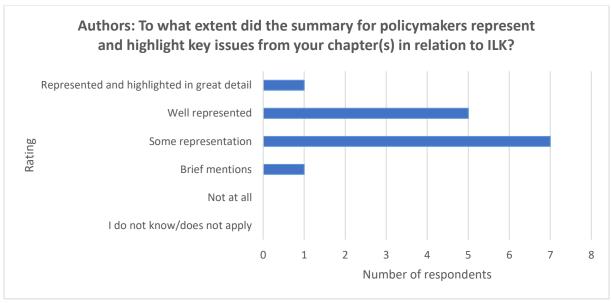


Figure 34: Author responses on the extent to which ILK was highlighted and represented in the summaries for policymakers of their assessments.

4.2.23.2 What works well

Respondents also made the following qualitative comments about positive aspects relating to the extent to which ILK was highlighted and represented in the summaries for policymakers of their assessments:

- Key ILK and IPLC issues are represented in the summaries for policymakers;
- Figures and boxes in the summaries for policymakers helped to highlight IPLCs and ILK; and
- For the Values Assessment, the ILK liaison group supported the process for developing the summary for policymakers by editing key ILK messages.

4.2.23.2 *Challenges*

Respondents also made the following qualitative comments about challenges relating to the extent to which ILK was highlighted and represented in the summaries for policymakers of their assessments:

- An assessment's ILK content can become weakened in the summaries for policymakers;
- The diversity of ILK makes it difficult to synthesize it into the short, dense texts of a summary for policymakers; and
- Cultural contexts often do not fit into the style of a summary for policymakers.

4.2.24 Post-assessment activities

Many respondents reported that they did not know about post assessment activities relating to their assessments, while media outreach and author participation in events were noted to be effective by four respondents each (see figure 35).

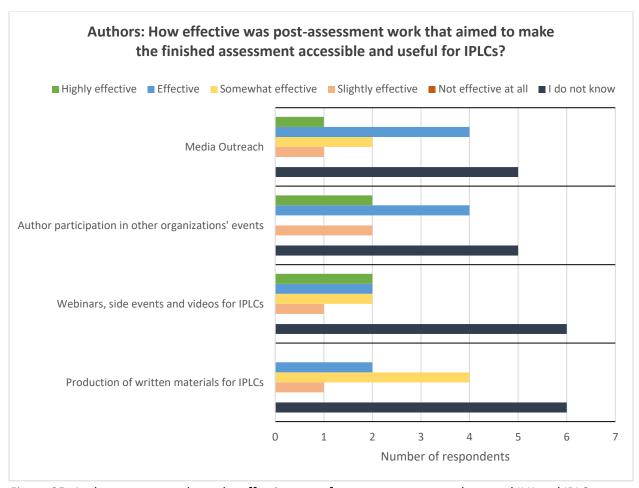


Figure 35: Author responses about the effectiveness of post-assessment work around ILK and IPLCs.

4.2.24.1 What works well

Respondents also made the following qualitative comments about positive aspects relating to the effectiveness of post-assessment work around ILK and IPLCs:

 Academic papers for peer-reviewed journals have been written based on ILK findings in assessments.

4.2.24.2 Challenges

Respondents also made the following qualitative comments about challenges relating to the effectiveness of post-assessment work around ILK and IPLCs:

Academic papers were written mostly from a scientific perspective; and

 Author respondents were, in general, less involved in post-assessment activities, and noted that they are not always aware of what is taking place or how effective the activities are.

4.2.25 Impact of the assessments and their summaries for policymakers

In general authors responded that the assessments were having strong impacts on scientists and other researchers and on non-governmental organizations. In general, some impact was seen on governments and policymakers and IPLCs. Many authors also reported that they did not know if impacts were occurring (see figure 36).

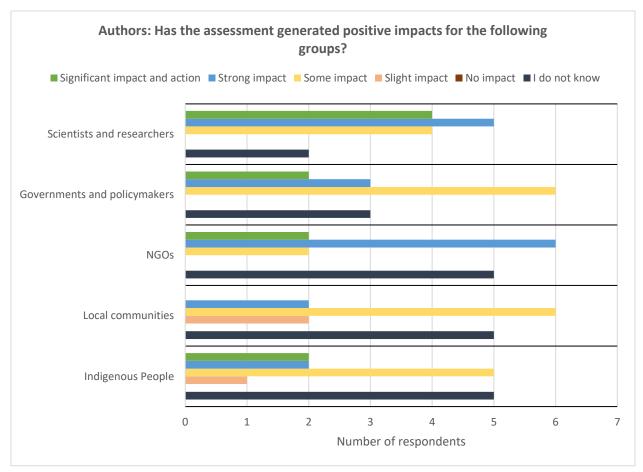


Figure 36: Author responses about the impacts of IPBES assessments and their summaries for policymakers on different groups.

4.2.25.1. What works well

Respondents also made the following qualitative comments about positive aspects relating to the impacts of IPBES assessments on different groups:

• The new analyses and reviews on ILK and IPLCs contained in the assessments are often used by IPLCs in global fora, e.g. at the CBD;

- Publications coming from the Global Assessment, written by authors and IPLCs, are also
 often used by IPLCs in global fora, as these showed the importance of ILK and the roles of
 IPLCs for maintaining biodiversity;
- Some IPLC organizations have already incorporated the Values Assessment in their work;
 and
- The assessments are well used and cited within the scientific community.

4.2.25.2. Challenges

Respondents also made the following qualitative comments about challenges relating to the impacts of IPBES assessments on different groups:

- Many authors noted that they are unaware of post-assessment impacts; and
- There are no local community representatives in the author group, and local community members are less often invited to the dialogue meetings, so impacts for these groups are smaller.

4.2.25.3 Ways forward

Respondents also made the following qualitative comments about ways forward relating to the impacts of IPBES assessments on different groups:

• Impacts for IPLCs depend very much on the number of IPLC representatives involved in IPBES and also the regional coverage/expertise of these IPLC participants. Enhancing participation throughout the process would potentially enhance impacts for IPLCs.

4.2.26 Overarching comments on work with ILK and participation by IPLCs in IPBES assessments

Authors were asked for any overarching comments relating to work with ILK or participation by IPLCs in IPBES assessments.

4.2.26.1 What works well

Respondents also made the following qualitative overarching comments about what works well:

IPLC and ILK inclusion was identified by authors as a vital process in IPBES assessments.
 IPBES is innovative in its openness to diverse voices and types of knowledge at the global level, and the work of teams such as the ILK liaison group and task force is important to this process.

4.2.26.2 *Challenges*

Respondents also made the following qualitative overarching comments about challenges:

- However, it is a challenging process that requires more IPLC representation. IPLC scholars and experts need to work with researchers at each level of the assessment process; and
- There is also a growing tension between Indigenous Peoples and local communities that goes beyond IPBES, that will be increasingly reflected in IPBES work. IPBES needs to work

on how best to include local communities in this context, recognizing how diverse they are.

4.2.26.3 Ways forward

Respondents also made the following qualitative overarching comments about ways forward:

- Creating space for trust building, with other dialogue formats is crucial;
- More IPLC authors need to be involved in the assessments, and ways of encouraging nominations and applications, selecting authors and supporting their engagement may be needed; and
- Mapping local community groups and working out how the diversity of local communities can best be represented is vital.

4.2.27 What should IPBES be aiming for in the coming years in terms of working with ILK?

Authors were asked what IPBES should be aiming for in the coming years in relation to work with ILK and participation by IPLCs. Responses included:

- Rather than asking IPLCs to work within scientific frameworks, more could be done to reach IPLCs on their own terms, by adapting time and formats to more listening and ritualistic forms of dialogue and encounter. An entire assessment only focusing on ILK and IPLCs could be undertaken;
- Ways may need to be found for IPLCs to have more decision-making power within IPBES, recognizing that power asymmetries between science and other ways of knowing remain a significant hindrance to a commitment with equity, specifically in sharing governance and decision-making with IPLCs;
- IPBES should enhance its work on establishing long-standing and respectful partnerships with IPLCs; and
- IPBES should also focus on capacity-building and other forms of support to young ILK scholars.

5. National ecosystem assessments and Indigenous and local knowledge

IPBES does not itself conductnational ecosystem assessments. The Biodiversity and Ecosystem Services Network (BES-Net)¹² and the National Ecosystem Assessment Initiative support

¹² BES-Net is jointly implemented by United Nations Development Programme (UNDP – hosts BES-Net and leads multi-stakeholder engagement and Trialogues), The United Nations Environment Programme's Wildlife Conservation Monitoring Centre (UNEP-WCMC – hosts the National Ecosystem Assessment Initiative) and UNESCO (leads the Indigenous and local Knowledge support unit).

countries conducting national ecosystem assessments. In this, they recognize that ILK enriches policies and the conservation knowledge-base.

BES-Net and the National Ecosystem Assessment Initiative have developed ILK approaches and tools, which build on the IPBES approach to recognizing and working with ILK and the methodological guidance, with an aim of developing evidence-based National Ecosystem Assessments grounded in multiple knowledge systems.

The BES-Net ILK support unit also works closely with the IPBES technical support unit for and task force on ILK. The IPBES technical support unit and task force support ILK capacity-building of National Ecosystem Assessment country partners through sharing IPBES experiences with ILK, lessons learned, challenges and insights, including during dedicated webinars, as well as reviewing guidance documents on ILK approaches and methods for national ecosystem assessments.

The BES-Net ILK support unit and the National Ecosystem Assessment Initiative have developed two National Ecosystem Assessment ILK resources, available in English, French and Spanish, entitled:

- (d) Why engage with IPLCs in National Ecosystem Assessments
- (e) Practical guidelines of working with ILK in National Ecosystem Assessments

Other National Ecosystem Assessment material guides also prominently feature ILK, including:

- <u>Confidence Terms</u>
- Trialogue in National Ecosystem Assessments interactive guide
- Selecting Authors
- Gender considerations and gender balance

As a result of this work, countries conducting national ecosystem assessments have engaged a variety of methods for working with ILK and enhancing participation of IPLCs. Methods used in the national ecosystem assessments include:

- IPLCs as authors
- Literature reviews
- Community dialogues, including scoping and framing workshops
- Walking workshops
- Mapping projects
- National trialogues

6. Conclusion

IPBES is recognized as ground-breaking and innovative for its work with ILK knowledge and IPLCs at the global level. Efforts to enhance work with ILK and increase participation by IPLCs are showing clear benefits and results through successive assessments. This standard setting is influencing biodiversity processes at other levels, including national ecosystems assessments.

Challenges still remain within IPBES, including balances between natural science, social science and ILK within assessments, language barriers and funding limitations, all of which limit participation by IPLCs and limit work with ILK, particularly within author teams. Other areas of IPBES work may also benefit from increased attention to ILK. From the perspective of IPLCs, there are few visible impacts on policymakers and business and industry from IPBES assessment findings related to ILK and IPLCs.

To continue to enhance both IPBES work with ILK and participation by IPLCs, key areas of attention include enhancing the consideration of different methodologies for working with and reflecting ILK, recognizing that assessments tend to be framed by scientific conceptions and methods. Ensuring appropriate expertise on ILK and participation by IPLCs in assessment author teams is crucial, as most other ILK methods used in assessments depend on the ability of author teams to carry them out, or the ability of author teams to make full use of the literature, materials and contributions generated through these methods. Capacity-building for IPLCs and all authors is also highly important, as is enhancing communication to IPLCs, and addressing language barriers and funding limitations. Strategically enhancing outreach to policymakers and other stakeholders will also be key to further generate benefits for IPLCs from IPBES assessments.