

GUIDANCE ON THE EXTERNAL EXPERT PEER REVIEW PROCESS IN NATIONAL ECOSYSTEM ASSESSMENTS



INTRODUCTION

National ecosystem assessments provide a critical synthesis of existing knowledge and knowledge gaps on biodiversity and ecosystem services. Ensuring credibility, legitimacy and relevance of these assessments helps to build ownership and supports their use in informing critical policy and decision-making. The external expert peer review of drafts developed during the national ecosystem process becomes key to support the credibility and high quality of the assessments.

This guidance document outlines good practices for planning, conducting and responding to external expert peer reviews in national ecosystem assessments. It draws mainly from the official IPBES Guide on the Production of Assessments (2018a, 2018b) and is further tailored to national ecosystem assessments based on the experiences and perspectives of country experts who have undertaken ecosystem assessments.

The [National Ecosystem Assessment Initiative](#) recognises that effective external expert peer review is fundamental to producing assessments that are scientifically rigorous, policy-relevant and trusted by diverse stakeholders. Through systematic external review, national assessments can better serve their primary purpose: providing credible evidence to support biodiversity conservation and sustainable ecosystem management at the national level.

This document is organised into six sections: an introduction to the external expert peer review process (**what and why**), the stages at which it occurs (**when**), how to plan and structure it (**how**), who to engage (**who**), final considerations and practical annexes with templates and examples.



WHAT IS THE EXTERNAL EXPERT PEER REVIEW AND WHY DOES IT MATTER?

The external expert peer review involves independent experts who are not authors or staff of the national ecosystem assessment (NEA) coordinating bodies. The review helps improve the scientific quality, clarity and balance of the drafts before finalisation. It differs from internal author reviews and typically occurs at specific key drafting stages. External reviewers may include scientists, policymakers, practitioners and holders of Indigenous and local knowledge (ILK) providing feedback to enhance the assessment's accuracy, completeness and policy relevance.

To align with standard principles underpinning high-quality external peer review processes and consistent with IPBES's credibility–relevance–legitimacy (CRELE) framework, the external review process should ensure the highest scientific quality and policy relevance by seeking a wide and balanced participation from experts across relevant disciplines and backgrounds. The process should be conducted in a transparent and open manner, with clear documentation of all comments received and the corresponding responses.

This guide sets out who should be involved in selecting external expert reviewers and the steps for identifying them in the sections that follow. **How does the external expert peer review differ from academic peer review?**

Academic peer review typically involves anonymous experts who assess a manuscript's originality, methodological rigour, and contribution to a specific disciplinary field, often as part of the quality control process for scholarly publication (Ware 2008). The reviewers are chosen by journal editors.

By contrast, the external expert peer review in the context of national ecosystem assessments brings together experts from multiple disciplines, knowledge systems and other relevant stakeholders. The review assesses not only the scientific robustness and clarity of the assessment but also the extent to which its findings are usable and relevant for decision-making and a broader audience, including governments, civil society and other actors.

WHO SHOULD BE INVOLVED?

Effective external expert peer review relies on the coordinated contributions of different actors, each with a defined role in shaping the process (see Table 1). Together, they help ensure that the review process is designed and conducted in a way that is transparent, methodologically rigorous and fit-for-purpose. Robustness requires that every stage of the process is carefully planned to ensure reliability and legitimacy. Being fit for purpose means that the design reflects the national context and policy needs, so that the review contributes meaningfully to the assessment. Teams may adjust the composition of these roles according to their institutional capacity and national context.

TABLE 1 / ROLES AND RESPONSIBILITIES

Actor	Core Responsibilities	Key Tasks/Notes
NEA Implementing Agency/ Technical Support Unit (TSU)	Coordinate the external expert peer review process, provide access to files, templates, and version control, compile and format comment matrices, safeguard data and maintain a reviewer database.	Provide workflow continuity and technical assistance to external reviewers.
	Plan and oversee the full review cycle: recruit and register reviewers, compile comments, monitor author responses and keep records.	Ensure balanced representation, handle conflicts of interest and support reviewer engagement throughout the process. To determine whether any conflicts of interest exist, the process can be guided by the IPBES Conflict of Interest Policy and Implementation Procedures, adopted by the Plenary in decision IPBES-3/3 (Annex II). Reviewers are encouraged to consult this policy when registering or participating in the review process. The policy document is available on the IPBES website.
Authors	Revise chapters based on feedback, justify any comments not incorporated, maintain scientific accuracy and balance.	Work closely with review editors where clarification is needed. During the review process, some comments may be unclear, conflicting, or fall outside the scope of the assessment. Review editors play a key role in ensuring that such comments are handled fairly, transparently and in line with established procedures.

Actor	Core Responsibilities	Key Tasks/Notes
		Recommendations for dealing with these situations include grouping similar comments and preparing consolidated responses, providing clear justifications when disregarding unsubstantiated or off-topic inputs and using review editors to ensure a balanced and procedurally fair review process. It is also important to maintain a clear record of reviewer input and corresponding author responses to support accountability and transparency.
External Expert Reviewers	Review drafts for accuracy, clarity, completeness and rigour, offer evidence-based suggestions to improve content, flag gaps or weaknesses, declare conflicts and respect confidentiality agreements.	Register through their respective national process, following the established procedure. Comments should focus on substantive issues rather than editorial suggestions.
Review Editors	Ensure fair use of reviewer input, guide authors on responses, and resolve conflicting or unclear comments.	Do not rewrite content and act as mediators when needed.

Who qualifies as an external expert reviewer?

External expert reviewers may include scientists, practitioners, policymakers and holders of ILK with relevant expertise not involved as authors in the assessment. Reviewers should include experts from from different disciplines, regions, genders and knowledge systems.

According to the 2018 IPBES Assessment Guide (and related procedural documents), the following elements can be included in the reviewer registration process to support transparency and consistency:

Text Box A. Reviewer Registration Checklist

- **Expertise statement:** Brief outline of relevant scientific, technical, professional or policy experience
- **Conflict of interest disclosure:** Helps ensure impartiality
- **Confidentiality agreement:** Reviewers agree not to share, cite or circulate draft content or comments

WHEN SHOULD THE EXTERNAL EXPERT PEER REVIEW OCCUR?

The national ecosystem assessments' external expert peer review should take place during the expert evaluation stage. Specifically, it is conducted to review:

1. the First Order Draft
2. the Second Order Draft
3. the draft Summary for Policymakers (SPM)

This sequencing ensures that expert feedback is incorporated at critical points in the assessment development. The drafting of the Second Order Draft and SPM builds directly on the comments received during the First Order Draft review.

In some cases, coordinating teams may adopt a 'fast-track' approach, involving a single round of external peer review. This streamlined process is more limited in scope and time and may focus on selected sections rather than a full report review. Reviewers in such cases are often invited to comment on specific parts of the draft aligned with their areas of expertise.



HOW TO DESIGN THE EXTERNAL EXPERT PEER REVIEW PROCESS

THE FOUR-STEP REVIEW CYCLE



1. Preparation: Identify the sections to be reviewed, develop review guidelines and set a realistic timeline. Ensure the drafts to be reviewed (First Order Draft, Second Order Draft and SPM) are accessible and accompanied by a structured comment template (see Table 3).

2. Reviewer Engagement: Invite a diverse and inclusive group of external expert reviewers, including scientists, practitioners, policymakers and holders of ILK, with attention to gender and other aspects of representation.

3. Comment Management: Compile comments using a review matrix and organise them by section or theme to support a transparent and efficient author response process.

4. Author Response and Revision: Authors review comments received and justify any comments that were not incorporated. The NEA Implementing Agency/TSU oversees this process to ensure transparency and fairness.

RECOMMENDATION

A step that may be applied between stages

An initial dialogue or workshop could be organised to introduce the drafts to external experts and provide a space for questions and clarifications. Experts may participate once they have successfully completed the registration process. Workshops may also be implemented at other stages of the process, as needed and where appropriate, to the context and specific needs of the assessment.

While external experts' comments are for internal use, the teams may choose to disclose summary responses or comment matrices depending on their transparency policies and stakeholder expectations.

When should the external expert peer review occur?

The NEA Implementing Agency/TSU can re-invite registered external reviewers of the First Order Draft to review the Second Order Draft and SPM to broaden or maintain expert input. While the review of the First Order Draft involves a dedicated expert peer review of the draft chapters, the review of the Second Order Draft and SPM commonly enters a dual-track review process, where external expert reviewers, government reviewers and relevant stakeholders simultaneously evaluate the assessment.

TABLE 2 / REVIEW MODALITIES: OPEN VS. TARGETED				
Review Modality	When to Use	Benefits	Tips	Considerations
Open call to external experts	When broad disciplinary input is needed or there are limited networks to be approached.	Promotes transparency and diverse participation.	Use mailing lists, professional societies and social media.	Requires clear eligibility criteria and effective screening of reviewer expertise.
Targeted invitation to external	When specific experts or niche expertise are required.	Enables focused, balanced technical feedback.	Draw from expert rosters, ILK networks, and academic contacts.	May limit the diversity of perspectives unless complemented with additional outreach.

While external expert peer review is voluntary, providing incentives, such as professional recognition, formal acknowledgement or support to facilitate participation, help encourage reviewers' engagement.



FINAL CONSIDERATIONS

- Embed openness, inclusive expertise, respectful dialogue and clear documentation across all stages of the external peer review process.
- Adjust elements such as timelines, languages, and outreach methods to suit the national context, while remaining consistent with core IPBES principles.
- Set and communicate realistic review periods for both reviewers and authors to support meaningful input and thoughtful responses.
- Prepare templates and guidance materials from the planning phase to facilitate coordination and consistency across all steps of the review process.
- Safeguard integrity by recording how comments are addressed, managing conflicts of interest and documenting the review process.

Although approaches may vary between countries, all national ecosystem assessments should reflect the principles of transparency, inclusiveness and rigour. Coordinating bodies are encouraged to shape review processes that are context-appropriate and aligned with IPBES guidance.

REFERENCES

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ANNEXES

Annex A: Sample of Templates to Send to External Experts

This annex provides an example of a comment template that can be adapted for use in national ecosystem assessments, depending on specific needs. It may include fields for page/line references, comment type, suggested changes, and rationale.

Reviewer Name	Chapter	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment

Source: IPBES (2018): IPBES Guide on the production of assessments. Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Bonn, Germany

Annex B. Example of Instructions to Send to External Reviewers

The following are examples of key aspects that may be communicated to external experts to support consistency and clarity during the review process. These instructions can be adapted to reflect specific language preferences, timelines and submission procedures.

Please follow the guidance below to ensure your comments can be processed effectively:

Language: Submit all comments in (include the preferable language).

Focus: Concentrate on key substantive issues such as scientific accuracy, clarity, completeness, and relevance.

Format: Use only the official Excel Review Comments Template provided.

Examples: See Worksheet 2 in the template for examples of how to input comments.

Do not modify the template: Comments submitted in any other format will not be accepted.

Deadline: The first external review is open from XX to XXX (minimum 6 weeks are recommended).

Submission: Upload completed templates no later than (clear date and hour) at the following link.

Annex C. Sample of Template for Author Responses to Reviewer Comments

The following template can be used to document how comments from external reviewers have been considered. It is intended to support transparency and traceability in the review process and may be adapted to suit the structure and needs of each assessment.

This format may be compiled by the NEA Implementing Agency/TSU or chapter lead and can be appended to the final NEA report or made available online to show how feedback was addressed.

Review Comment #	Section / Line Reference	Reviewer Comment	Author Response	Action Taken
1				
2				
3				
4				

Instructions for Use

- **Review Comment #:** Number each comment consecutively for reference.
- **Section / Line Reference:** Indicate the location of the text addressed (chapter and line numbers).
- **Reviewer Comment:** Copy the full text of the reviewer’s comment.
- **Author Response:** Provide a concise explanation of how the comment was addressed or why no action was taken.
- **Action Taken:** Indicate whether the text was revised, unchanged (with justification), or another action was taken (e.g., figure updated).

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