

Initial scoping for the fast-track thematic assessment of freshwater biodiversity and its nature's contributions to people

This scoping document was developed at the InFish 2019 Meeting.

Goal: To highlight the need for the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) to consider as a future topic in the work programme a *global thematic assessment of freshwater biodiversity and its nature's contributions to people*.

I. Introduction

1. Recognizing that it would be necessary to move forward with the ongoing work programme following its approval by the Plenary of the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services at its [seventh, eighth] session, the Bureau and the Multidisciplinary Expert Panel agreed to prepare, for consideration by the Plenary at that session, a number of initial scoping documents based on the prioritization of requests, suggestions and inputs put to the Platform and the deliverables set out in the draft work programme (IPBES XX). The present note sets out the initial scoping for a proposed fast-track thematic assessment of freshwater biodiversity and its nature's contributions to people. It has been developed in accordance with the draft procedures for the preparation of the Platform's deliverables (IPBES/2/9).

II. Scope, rationale, utility and assumptions

A. Scope

2. The objective of the proposed fast track thematic assessment of freshwater biodiversity and its nature's contributions to people is to assess alterations of freshwater biodiversity and inland fisheries with an emphasis on impacts to human well-being through food, nutritional, economic security, cultural and recreational services, and environmental resilience. The thematic assessment will focus on freshwater biodiversity provisioning services, including inland fisheries, water supply, and cultural services. Freshwater biodiversity supporting inland fisheries is severely threatened globally and, due to data limitations in many of these systems, their services are undervalued, ignored, or excluded from policy decisions.

B. Rationale

3. The proposed assessment is required to facilitate the enhancement of policy responses to global declines and deficits in freshwater biodiversity and inland fisheries for ecosystem services underpinning food production and human well-being. Freshwater systems comprise only a small fraction (0.8%) of the Earth's surface but support a significant portion of global biodiversity. However, freshwaters are disproportionately threatened by evolving environmental and human-induced threats (i.e., 65% of freshwater fish habitats are at risk from anthropogenic stressors; Vörösmarty et al. 2010). The services provided by freshwater biodiversity and inland fisheries to human well-being are diverse and varied, from food and livelihoods to recreation, pest control, and biomedical research. Inland fisheries and aquaculture, for example, contribute

more than 40% of the world's finfish production and provide food for billions and livelihoods for millions of people worldwide.

C. Utility

4. The proposed assessment will identify policy-relevant findings for decision-making by Governments, the private sector, and civil society in a rapidly changing field and contribute to the implementation national and international biodiversity goals; and represent a deliverable of the Platform that highlights how the Platform can contribute to efforts to protect biodiversity and promote sustainable development.

D. Assumptions

5. The proposed assessment will be based on existing scientific literature and draw on the work of existing institutions such as the Ramsar Convention on the wise use of wetlands through their Global Wetland Outlook; the Food and Agriculture Organization of the United Nations (FAO), through their State of World Fisheries biennial reports; and the Hidden Harvest Initiative. This assessment will advance these efforts by maintaining a specific focus on fisheries and services from freshwater ecosystems for food production and human well-being.

III. Chapter outline

6. It is contemplated that the results of the fast-track thematic assessment will be presented in a five-chapter report, as set out below:

7. Chapter 1 will include a brief review of freshwater biodiversity and inland fisheries. It will assess the status of and trends in freshwater biodiversity, including inland fisheries, ecosystem function, freshwater connectivity with other ecosystems, and nature's contributions to people. The assessment will include the role of native and exotic species, including fish, macroinvertebrates, molluscs, aquatic vegetation, and other aquatic organisms. It will moreover consider the role of multiple ecosystem variables across spatial scales, such as freshwater species assemblage composition, freshwater diversity, and species distributions.

8. Chapter 2 will assess the drivers of change of freshwater ecosystems and inland fisheries. This chapter will include an overview of direct and indirect drivers of change, such as climate change, urbanization, pollution, invasive species and over-exploitation. Changes in freshwater biodiversity and inland fisheries will be evaluate in stream, river, lake, and reservoir habitats will be evaluated.

9. Chapter 3 will assess freshwater biodiversity use and non-use valuation; contributions to livelihoods, food security, and sustainable development. This chapter will focus specifically on freshwater biodiversity provisioning services, including inland fisheries and water supply, and cultural services, such as contributions to religious values and traditions.

10. Chapter 4 will assess projected freshwater biodiversity and scenarios under varying policy decisions to demonstrate impacts of selected policies on freshwater biodiversity and inland fisheries conservation.

11. Chapter 5 will assess policy implications, governance, and management issues in addressing freshwater biodiversity and inland fisheries. This chapter will also focus on previously implemented inappropriate policy decisions or actions that resulted in negative impacts to freshwater biodiversity and inland fisheries.

IV. Process and timetable

12. The proposed process for undertaking the fast-track thematic assessment and the timetable for carrying it out are outlined in the following table.

<i>Time frame</i>		<i>Actions</i>
XX	Fourth quarter	The Plenary reviews and approves the initial scoping exercise prepared by the Multidisciplinary Expert Panel (DATE)
	Fourth quarter	The Panel issues a call, through the secretariat, to Governments and other stakeholders for the nomination of experts (report co-chairs, coordinating lead authors, lead authors and review editors) to conduct the assessment, based on the results of the scoping exercise approved by the Plenary (DATE)
XX	First quarter	The Panel, via e-mail and teleconferences, selects the co-chairs, coordinating lead authors, lead authors and review editors using the approved selection criteria (see IPBES/2/9) (DATE)
	First/second/third quarter	The report co-chairs, coordinating lead authors and lead authors prepare an initial draft report and summary for policymakers (DATE). The authors meet in February to further develop the annotated outline and the sections and chapters that have been assigned to them, and again in early July to finalize the report and prepare the summary for policymakers
	Third quarter	The draft report and the summary for policymakers are reviewed by experts, and Governments and other stakeholders (DATE)
	Third/fourth quarter	The report co-chairs, coordinating lead authors and lead authors revise the first draft report and summary for policymakers under the guidance of review editors and the Panel. The authors and review editors, with a small number of Panel members, meet once to prepare the final draft report and summary for policymakers (DATE)
	Fourth quarter	The summary for policymakers is translated into all the official languages of the United Nations (DATE)
	Fourth quarter	The final draft report and summary for policymakers are sent to Governments and other stakeholders for final review (DATE)

XX	First quarter	Governments send written comments on the summary for policymakers to the secretariat by DATE
	First quarter	The Plenary reviews and accepts the report and approves the summary for policymakers (DATE)

V. Cost estimate

13. The table below shows the estimated cost of conducting the assessment and preparing the assessment report.

(United States dollars)

Year	Cost item	Assumptions	Cost
XX	First author meeting (75 co-chairs, coordinating lead authors and lead authors, plus 4 Multidisciplinary Expert Panel/Bureau members, plus 1 technical support staff member)	Meeting costs (1 week, 80 participants) (25 per cent in kind)	15 000
		Travel and DSA (60 x \$3,000)	180 000
	Second author meeting (75 co-chairs, coordinating lead authors and lead authors, plus 4 Panel/Bureau members, plus 1 technical support staff member)	Meeting costs (1 week, 80 participants) (25 per cent in kind)	15 000
		Travel and DSA (60 x \$3,000)	180 000
	Third author meeting (75 co-chairs, coordinating lead authors and lead authors, plus 12 review editors, plus 4 Panel/Bureau members, plus 1 technical support staff member)	Meeting costs (1 week, 92 participants) (25 per cent in kind)	18 750
		Travel and DSA (69 x \$3,000)	207 000
Technical support	1 full-time equivalent professional position (50 per cent in kind)	75 000	
XX	Participation by 2 co-chairs and 2 coordinating lead authors in the next session of the Plenary	Travel and DSA (3 x \$3,000)	9 000
	Dissemination and outreach (summary for policymakers (10 pages) and report (200 pages))	Translation of the summary for policymakers into all of official languages of the United Nations languages, publication	117 000

		and outreach	
Total			816 750