Convention on Wetlands

Integrating multiple wetland values into decision-making

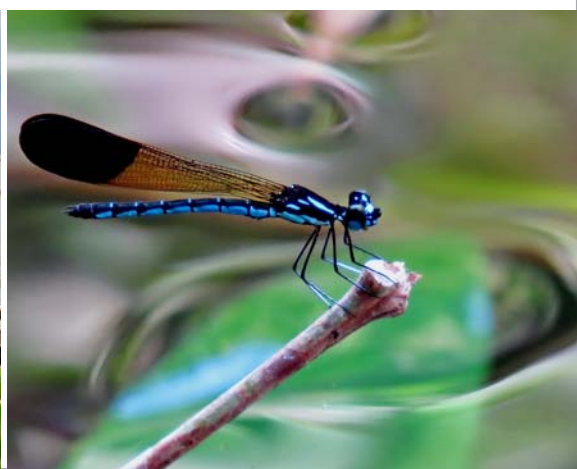
The Ramsar Convention recognizes the interdependence of people on wetlands for their important economic, cultural, scientific and recreational values. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) provides a framework for considering the multiple values of nature, including wetlands, and its benefits to society within policy-making and decision-making processes. The recognition of the diverse values of wetlands is essential to their wise use, and to ensuring that their role is reflected in global policy processes such as the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction and the Paris Agreement on climate change.

This Policy Brief can support policy-makers by informing and facilitating the integration of the multiple values of wetlands across sectors, supported by improved valuation studies, to enhance the relevance and impact of policies.

Policy recommendations

- To achieve wise use, and for wetlands to contribute fully to sustainable development, policy-makers and practitioners[1] (such as site managers) should recognize the multiple values of wetlands, and reflect them in their decisions, policies and actions.
- Assessments of the multiple values of wetlands must include a recognition and consideration of a range of different value systems.
- Multiple wetland values need to inform collaborative, cross-sectoral efforts. The different sectors engaged in wetland governance should communicate and collaborate to ensure that these multiple wetland values are recognized.
- Assessments of the multiple values of wetlands should follow credible, legitimate and relevant processes if they are to be accepted and have an impact on policy.

1 Resolution XII.5, Annex I, paragraph 54 (ii), defines practitioners as including "wetland managers and stakeholders, but also others from related fields, such as protected area managers and staff of wetland education centres."



The issue

Wetlands make diverse contributions to human wellbeing, which people and communities value. The consequences of wetland management and mismanagement affect all sectors of society; however, the values which people assign to wetlands and the impacts of wetland management decisions are not always adequately considered in development planning and other decision-making.

Stakeholders and decision-makers attribute values to wetlands and their benefits to people in diverse ways. Policy-makers within and across all sectors must recognize and take into account these multiple wetland values and their interdependencies if wetland wise use and sustainable development are to be achieved. When stakeholders in one sector make decisions based only on their interests, benefits to parties in other sectors may be undermined or lost, perpetuating wetland degradation and limiting options for wise use.

Beyond the intrinsic value of nature and ecosystem properties, the IPBES considers nature's contributions to people in three broad groups: regulating, material and non-material. In the context of wetlands, these contributions represent different facets of the ways these ecosystems support a good quality of life. They range from meeting basic needs such as for food and water, to regulating the environment and to providing identity and meaning to different social groups.

The way wetlands are valued varies according to how different cultures, social groups and disciplines perceive the relationships between society and nature. Wetland values can be viewed in different ways ranging, for example, from monetary to aesthetic, spiritual or totemic (for example, relating a wetland or wetland species to societal existence). They can be expressed quantitatively (such as yield of fish) or qualitatively, as a principle or core belief (such as the right of species or a community to survive), importance (such as the role of a wetland in disaster risk reduction) or a preference (maintaining wetland ecological character to support tourism). To achieve wise use of wetlands, it is critical to explicitly and transparently recognize, assess and integrate these multiple perspectives in policy-making.

Recognizing and assessing multiple wetland values

Recognizing and assessing the full range of values is essential to making informed decisions on wetlands. Assessment of multiple values is more effectively achieved by:

- Identifying and agreeing on the purpose of valuation in the context of the overall objectives for the wetland.

Multiple values of wetlands: The case of Lake Chilika, India

INTRINSIC VALUES
Wetland ecosystem components and processes

Non-Material Contributions
- Sense of place
- Cultural identity
- Recreation

Material Contributions
- Fish as food and source of income
- Plants

Regulating Contributions
- Flood buffer
- Habitat for migratory birds
- Climate regulation

- Engaging all relevant stakeholders, mindful of future generations, throughout the process.
- Using a range of relevant valuation methods.
- Communicating the findings of valuations in terms relevant to the stakeholders.

In order to enhance the policy impact and acceptability of the assessment process, it is important to build:

- Credibility, in terms of perceived quality, validity and appropriateness of the knowledge base, assessment team and process.
- Legitimacy, by ensuring a fair assessment process.
- Relevance, determined by the responsiveness of the assessment process to policy contexts and societal needs.

A step-by-step approach for practitioners on how to assess multiple values, inspired by IPBES, is annexed to this document.

Policy options and implications for integrating multiple wetland values into decision-making

- Decision-making based solely on monetary values or other one-dimensional perspectives is highly likely to compromise wetland integrity and the continued delivery of a full range of benefits to stakeholders. Decisions are more effectively informed by a richer understanding of the multiple values of wetlands and their contributions to people.
- A pre-requisite for aligning wetland and sustainable development policies and practices is the existence of an integrated, multi-sectoral policy-making environment in which the potential contributions of wetland values to goals of other sectors can be articulated, understood and incorporated into broader landscape-scale policy.
- Addressing multiple wetland values supports the integration and achievement of policy priorities such as poverty alleviation and food, water and climate security, and informs policy tools such as natural capital accounting and strategic economic and environmental assessments. Likewise, it delivers better outcomes through aligning wetland policies to better support global processes, including the Sustainable Development Agenda (Sustainable Development Goals), Sendai Framework for Disaster Risk Reduction (Sendai Targets), and the Paris Agreement on climate change (Nationally Determined Contributions).
- Taking account of multiple values improves the capacity to identify options that optimize overall present and future societal benefits while minimizing trade-offs, thereby contributing to sustaining wetland systems, their resilience and contributions to people.
- Recognition of the multiple values of wetlands can lead to more equitable and more widely accepted decisions.
- Although seemingly complex, recognition and integration of multiple values into on-going policy processes and management decision-making can be achieved using the established processes and tools highlighted in the Annex. The evidence shows that the effort involved is cost-effective and justified by improved policy outcomes.

Limitations and further research

Methods for assessing all of the diverse values provided by wetlands are in varying stages of maturity, with many requiring further applied research.

An increasingly participatory approach to policy development and decision-making is required to assess the diverse values assigned to wetlands, which takes into account traditional and other forms of knowledge that inform such values. Pragmatic deliberative approaches to achieve this require further uptake and, in some cases, innovation.

Current governance arrangements and associated financing in different policy areas tend to remain fragmented. Further research is required into approaches that effectively enable improved integration between policy areas.

Innovations are required to ensure policy interventions and management practices that transparently improve outcomes across the range of wetland values, optimizing overall present and future societal benefits and wetland resilience.

Annex: Protocol for assessing multiple values of wetlands

Introduction

- This protocol is intended to help wetland managers assess the multiple values of these ecosystems and their benefits to people. These values are diverse and extend well beyond those that may be monetized or otherwise quantified. They include intrinsic, regulatory, material and non-material values.
- Valuation is not an end in itself, but a part of a process to better inform policy and practice. Setting the appropriate policy context for the valuation process is vital if the outputs are to be credible, legitimate and relevant.
- At site, river basin, national and global scales, awareness of the multiple values of wetlands can support more integrated and equitable management and policy-making.
- Within river basins and coastal zones, awareness of multiple values can help link wetlands with wider water and land management objectives. At the site scale, multiple values can help demonstrate the connections between the wise use of wetlands and development agendas such as poverty alleviation, food security and human health.
- Recognizing, assessing and explicitly including the multiple values of wetlands in policy-making requires an integrated vision, which is presented in the form of this protocol. This protocol should therefore be read along with the policy brief, which provides the context of integration of the multiple values of wetlands into management.
- This protocol is an adaptation of the IPBES six-step guide for diverse conceptualization of nature and its benefits.

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

Established in 2012 by over 100 governments, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES, www.ibpes.net) is an intergovernmental body charged with strengthening the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human wellbeing and sustainable development.



The multiple values of wetlands

The term "value" can mean a **principle** or **core belief**, a **preference** (for something or a particular state of the world), the **importance** (of something for itself or for other things) or a **measure** (for example the number of species). For example, value attributed to the right of wetland species to survive originates in a principle of equality of life forms on earth. However, the value which communities attribute to maintaining a certain proportion of fish stock of economic value is an expression of their preference. For example, the value of a floodplain wetland for flood control is related to its **importance** for water management objectives, while water levels or water quality parameters of a wetland are **measures** of specific ecosystem components or processes.

Multiple values can be formed within different cultural, social and institutional contexts, and can be interrelated. For example, the ability of a wetland to deliver the material value of reliable and high-quality water, the non-material sense of place that an individual or community feels for the wetland, the importance of the wetland for flood regulation, and the intrinsic right of species to exist can combine as strong values supporting wise use. Values based on market prices reflect only some of these multiple values of wetlands, and so it is important to address the many values held by different stakeholders when designing and negotiating policies, programmes and actions relating to wetlands and their benefits.

Multiple values of wetlands and their contributions to people

Intrinsic values of wetlands:

- **Ecosystem properties** (such as biota, species assemblages or ecosystem processes) are of intrinsic value, which underpin their ability to contribute benefits to people. Typically these values emanate from ecosystem components (the living and non-living constituents of wetlands) and processes (that occur between organisms, and within and between populations and communities, including interactions with non-living environment).

Values of wetlands' contributions to people:

- **Regulating contributions** comprise functional and structural aspects of wetlands that modify environmental conditions experienced by people, sustaining or regulating the generation of material and non-material benefits. In many cases, these contributions are not experienced directly. For example, by regulating hydrological regimes, some wetland types can reduce the risk of water-related disasters as floods and droughts.
- **Material contributions** include substances, objects or other material elements from nature that sustain people's physical existence and infrastructure. Material contributions are typically consumable, for example fish, food or water harvested from a wetland.
- **Non-material contributions** cover nature's contribution to people's subjective or psychological quality of life, individually and collectively. The sources of these intangible contributions can be physically consumed in the process (such as recreational or ritual fishing) or conserved (such as ecosystems as a source of inspiration).

Table 1. **Examples of values of wetlands and their contributions to people**

		Focus of value	Example
Values of wetlands' contributions to people	Material contributions	**Food and fibre**	Wetlands as source of fish and rice.
		Water	Wetlands as source of freshwater for human and ecological use.
		Medicinal, biochemical and genetic resources	Materials derived from wetlands for use as medicine and biotechnology.
	Non-material contributions	**Learning and inspiration**	Wetlands as an avenue for research and education on aquatic ecosystems.
		Physical and psychological experiences	Wetlands as source of recreation and tourism.
		Supporting identities	Wetlands providing a sense of place and connectedness to communities.
		Maintenance of options	Capacity of wetlands to support current and future climate change adaptation.
	Regulating contributions	**Habitat creation and maintenance**	Wetlands as habitats for migratory birds within flyway.
		Climate regulation	Role of wetlands as carbon sinks.
		Regulation of freshwater quantity, flow and timings	Role of wetlands in moderating floods and droughts.
		Regulation of water quality	Role of wetlands in water purification.
		Regulation of hazards and extreme events	Role of wetlands in moderating storm surges.
		Regulation of pests	Dragonflies and insectivorous birds controlling population of pest species such as mosquitoes.
Intrinsic values of wetlands	Ecosystem properties	**Biota**	Species diversity.
		Species assemblages	Population and communities of wetland species.
		Ecosystem processes	Energy – nutrient dynamics.

Assessing multiple values

Multiple values of wetlands and their contribution to people can be assessed in a six-step sequential chain, illustrated in Figure 1, in which each step is triggered by a set of guiding questions.

Figure 1: **Six-step sequential chain for assessing multiple values of wetlands**

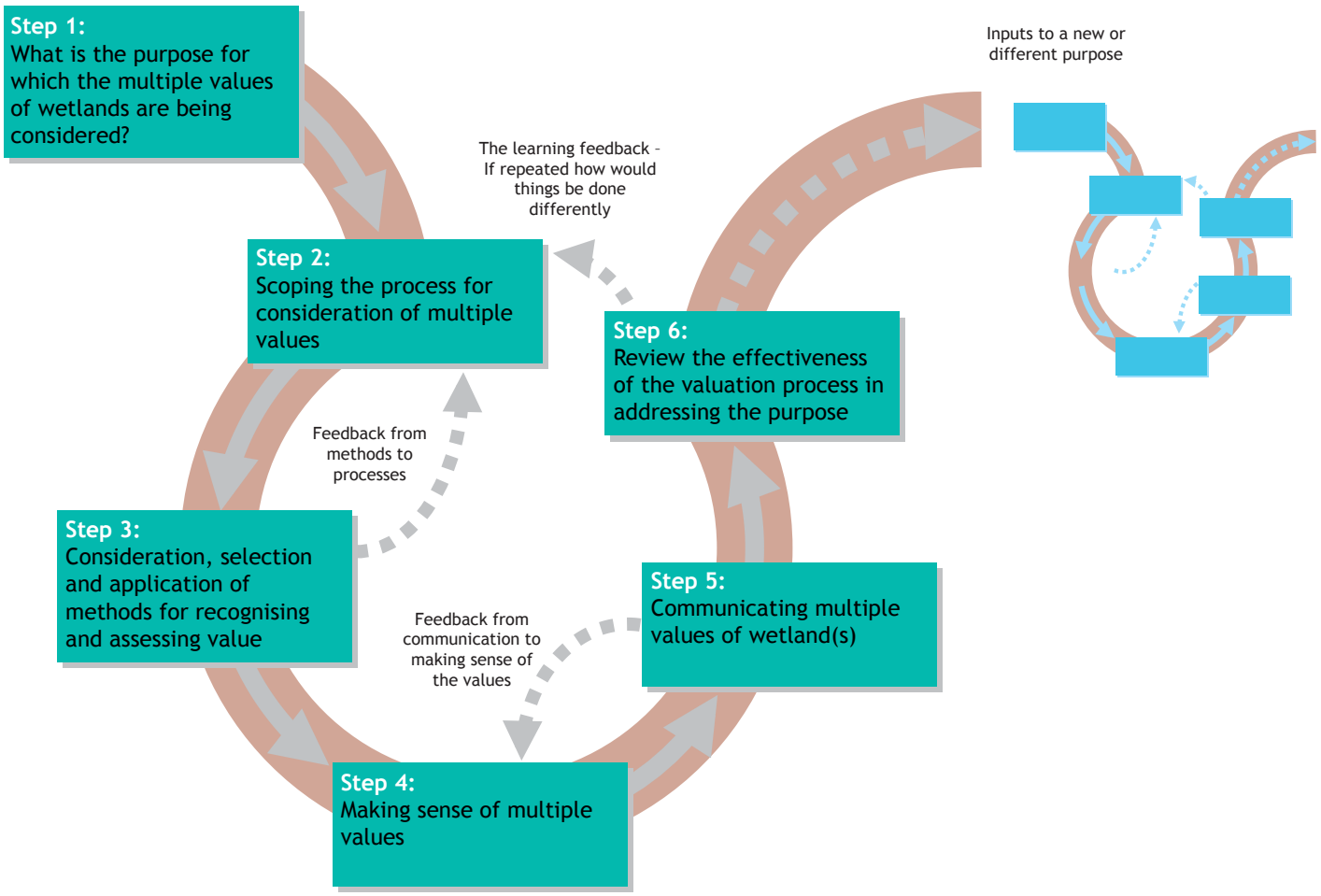


Table 2. **The six steps for assessing multiple values of wetlands**

Steps	Explanation	Guiding questions
Step 1: Determining the purpose for which the multiple values of wetlands are being considered.	Assessment of values is not an end in itself, but needs to support a policy or decision-making context. The issues involved and that these issues may differ considerably for different stakeholders. Clarity of purpose is essential to ensure that the results are relevant.	How will values be used? What are the issues and who has stakes? What specific decisions could be informed? What are the timelines of these decisions and how specific are the information needs? What type of values will be best suited to inform the issues?
Step 2: Scoping the process for consideration of multiple values.	It is important to be explicit about the scope and process followed to derive values associated with the wetland. Identify and design an engagement strategy with key stakeholders. Use Table1 to identify as many of the values and potential stakeholders as possible. Consider current and future values, as well as values expressed at different spatial scales. Account for appropriate different types of knowledge and information. Ensure the process is legitimate, transparent and inclusive.	How is the valuation process organized in terms of human and financial resources? Are all forms of knowledge (scientific as well as traditional) required for an assessment taken into account? Who will you involve in valuations? Who will be informed, when and how? Which values matter to the different stakeholders, who relates with or uses the wetland in what ways? Who is affected by the decisions or changes that might occur – for example, will there be effects downstream? How will inclusiveness or the process and ownership of the outputs be achieved?
Step 3: Consideration, selection and application of methods for recognizing and assessing multiple values.	In order to select adequate methods and approaches it is important to: Establish the boundaries of resource and resource use being assessed; Select multiple methods and approaches to ensure multiple values are covered; Establish baseline; Assess changes.	What methods are appropriate and proportionate for the purpose of the valuation study? Can simple and rapid assessment methods be applied? Have you interacted with an appropriate range of stakeholders? Have you considered local and indigenous knowledge? What values cannot be assessed adequately and why?
Step 4: Making sense of multiple values.	Different values can sometimes be integrated or at least linked and presented jointly to inform the purpose, for example by using different approaches (such as narrative, storyboard, diagrams and illustrations and numbers where relevant).	Are you confident that a representative set of multiple values has been assessed? What are the consequences of knowledge gaps? (It is acceptable and likely that there will be gaps, but it is important to consider the consequences of knowledge gaps.) What are the meanings of the multiple values and the gaps at different spatial and temporal scales?

Step 5: Communicating multiple values of wetland(s).	The outcomes of valuation need to be communicated if they are to be relevant and used, including engagement with key stakeholders during the valuation process, as well as other groups when the study concludes. Identify the implications of the multiple values for the purpose of the assessment. Discuss and develop the results with different stakeholders and policy makers. Be explicit about the gaps and your confidence in the results.	Has a participatory approach been undertaken with stakeholders of the valuation? Can stakeholders engaged in the valuation become ambassadors or advocates of multiple values? Who else do you need to communicate with? What are the appropriate media to reach these diverse stakeholder groups? How can uptake of the results in the policy and decision-making context be achieved?
Step 6: Reviewing the effectiveness of the valuation process in addressing the purpose.	It is important to evaluate the effectiveness of the valuation process in serving the purpose for which it was conducted.	Did the valuation achieve the purpose for which it was conducted? What were its strengths and weaknesses? How could the valuation process be complemented, extended or improved? Could the outputs of the valuation be used for other purposes?

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Further reading

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The Ramsar Convention

The Convention on Wetlands, also known as the Ramsar Convention, is a global inter-governmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. It is the only global treaty to focus on one single ecosystem.