



GUIDEBOOK ON NATIONAL BIODIVERSITY PLATFORMS: CONNECTING NATURE AND PEOPLE

Sabina Jehan Khan, Johannes Förster, Miriam Brenck, Kristina Raab, Shena Garcia Rangel, Heidi Wittmer



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Table of Contents

List of Acronyms	4
List of Boxes, Figures and Tables	5
PART 1: About this Guidebook	6
1. About this Guidebook on National Biodiversity Platforms	6
PART 2: Introduction	9
2. Introduction to National Biodiversity Platforms	9
2.1 What Is a National Biodiversity Platform?	9
2.2 Benefits of National Biodiversity Platforms	11
3. Guiding Principles: Credibility, Relevance and Legitimacy	15
PART 3: Establishing and Managing a National Biodiversity Platfo	rm17
4. Objectives of a National Biodiversity Platform	17
4.1 What are Potential Objectives of a National Biodiversity Platform?	17
4.2 Defining Objectives and Mandate	19
5. How to Get Started as a National Biodiversity Platform	27
5.1 Designing Institutional Structure and Governance	27
5.2 Designing Institutional Processes	32
5.3 Managing Resources	35

6. How to Work as a National Biodiversity Platform	39
6.1 Operations	39
6.2 Stakeholder Engagement	43
7. Monitoring, Evaluation and Learning	48
7.1 Monitoring and Evaluation	48
7.2 Learning and Sharing Lessons	50
7.3 Common Challenges and Possible Solutions	51

PART 4: Get Started with Practical Tools	.56
8. Toolkit for Establishing and Managing a National Biodiversity Platform	.56
8.1 Process of Establishing and Managing a National Biodiversity Platform	.56
8.2 Key Messages, Checklist and Additional Resources	.57

Glossary	61
References	68
Appendix: National and Regional Biodiversity Platforms Consulted for	
this Guidebook	70

List of Acronyms

AFD	Agence Française de Développement / French Development Agency
AECID	Agencia Española de Cooperación Internacional para el Desarrollo /
	Spanish Agency for International Development Cooperation
BBPF	Belgian Biodiversity Platform
BES	Biodiversity and Ecosystem Services
BES-Net	Biodiversity and Ecosystem Services Network
BioBridge	BioBridge Initiative of the Convention on Biological Diversity
BioSE-RDC	Biodiversité et Services Écosystémiques en République Démocratique du Congo / Biodiversity and Ecosystem Services in Democratic Republic of Congo
BPBES	Brazilian Platform on Biodiversity and Ecosystem Services
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CRELE	Credibility, Relevance and Legitimacy
COP	Conference of the Parties
CONABIO	La Comisión Nacional para el Conocimiento y Uso de la Biodiversidad, México / National Commission for the Knowledge and Use of Biodiversity, Mexico
ESP	Ecosystem Services Partnership
EU	European Union
FRB	Fondation pour la recherche sur la biodiversité / French Foundation for Biodiversity Research
GCF	Green Climate Fund
GEF	Global Environment Facility
IKI	International Climate Initiative of the Government of Germany
IPBES	Intergovernmental Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change

IUCN	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
MEA	Multilateral Environmental Agreement
MEL	Monitoring, Evaluation and Learning
NBP	National Biodiversity Platform
NBSAP	National Biodiversity Strategy and Action Plan
NEA	National ecosystem assessment
NeFo	Netzwerk-Forum zur Biodiversitätsforschung Deutschland / Network Forum for Biodiversity Research, Germany
NFP	National Focal Point
NGO	Non-Governmental Organisation
Ramsar	Convention on Wetlands of International Importance
Convention	especially as Waterfowl Habitat
SANBI	South African National Biodiversity Institute
SBSTTA	Subsidiary Body for Scientific and Technological Advice
SDGs	Sustainable Development Goals
SPPIs	Science-Policy-Practice Interfaces
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP-WCMC	United Nations Environment Programme World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
UFZ	Helmholtz Centre for Environmental Research, Germany
WABES	West African Biodiversity and Ecosystem Services
WB	World Bank

List of Boxes, Figures and Tables

List of Boxes

Box 1.1:	Definition of science-policy-practice interface	.6
Box 2.1:	Multilateral environmental agreements related to biodiversity and ecosystem services1	10
Box 2.2:	International science-policy-practice platforms on Biodiversity and Ecosystem Services1	1
Box 4.1:	National biodiversity platforms supporting national ecosystem assessments1	8
Box 4.2:	Pathways to a regional biodiversity platform in Central Asia	24
Box 6.1:	Engagement with Indigenous Peoples and local communities	16

List of Figures

Figure 1.1:	Customise your national biodiversity platform8
Figure 2.1:	Biodiversity and sustainable development10
Figure 2.2:	Benefits of national biodiversity platforms to various stakeholders12
Figure 4.1:	Example of a national ecosystem assessment process which includes the establishment of a national biodiversity platform18
Figure 4.2:	Example of mapping the importance of and engagement approach to stakeholders
Figure 4.3:	Example of strategic planning for national biodiversity platforms23
Figure 4.4:	Pathways to a regional biodiversity platform in Central Asia24
Figure 5.1:	Possible design options for national biodiversity platforms29
Figure 5.2:	Competencies required to devise solutions that support change processes towards sustainability
Figure 6.1:	Collaboration for enabling social learning, influence and impact at the science-policy-practice interface45
Figure 8.1:	Key elements in establishing and managing a national biodiversity platform

List of Tables

Table 2.1:	Major benefits of national biodiversity platforms and examples from interviewed platforms
Table 4.1:	Key objectives of national biodiversity platforms and activities supporting their realisation25
Table 5.1:	Common strategies used by science-policy-practice interfaces to build credibility, relevance and legitimacy32
Table 5.2:	Options to acquire resources for national biodiversity platforms36
Table 6.1:	Synergies and trade-offs among credibility, relevance and legitimacy
Table 7.1:	Challenges and possible solutions for national biodiversity platforms
Table 8.1:	Key messages, checklist and further resources to consult for establishing and managing a national biodiversity platform57



1. ABOUT THIS GUIDEBOOK ON NATIONAL BIODIVERSITY PLATFORMS

This guidebook provides an overview of processes for establishing and managing National Biodiversity Platforms (NBPs). It outlines characteristics shared by NBPs around the world and describes reflections about their main elements: objectives, institutional structure, processes and activities, provided by NBP staff from different countries interviewed for generating this guidebook.

An NBP is a science-policy-practice interface working at the national level (see <u>Box 1.1</u>). It convenes actors from different sectors to support greater integration of biodiversity and ecosystem services considerations into decision-making. Therefore, NBPs help to contribute to the conservation of biodiversity and ecosystem services.

The information presented in this guidebook is based on the experience of members of 18 established and soon-to-be established national biodiversity platforms. This experience was primarily compiled through interviews conducted by the Helmholtz Centre for Environmental Research – UFZ during 2020–2021 with the following countries: **Azerbaijan, Belgium, Brazil, Cameroon, Colombia, Denmark, Democratic Republic of** the Congo, France, Germany, Grenada, Madagascar, Mexico, Morocco, Nigeria, South Africa, Sweden, Switzerland and Vietnam (for information about each platform, see <u>Appendix</u>). Other information on NBPs was taken from their publications and websites (e.g., particularly Brazil and Mexico). Data was also gathered from the Europe and Central Asia Network of organisations engaging in the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), the West African Biodiversity and Ecosystem Services (WABES) – Supporting the West African contribution to IPBES, and a similar newly establishing initiative in Central Asia, to understand the experiences of regional biodiversity platforms which both support and are supported by national biodiversity-related science-policy-practice initiatives such as NBPs.

This data was complemented with selected literature on science-policy-practice interfaces, insights from workshops hosted by the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), the IPBES Technical Support Unit on Capacity-Building and the Institute for Biodiversity-Network e.V., and expert knowledge on science-policy-practice interfaces.

Box 1.1: Definition of science-policy-practice interface

There is a diversity of stakeholders with social, cultural and environmental knowledge on biodiversity and ecosystem services which have relevance for informing decision-making on sustainable development. ^[1] These stakeholders include scientists, Indigenous Peoples and local communities, practitioners, civil society, private sector and policy-makers, among others. Science-policy-practice interfaces are transdisciplinary initiatives working at the intersection of sectors, stakeholders and knowledge systems facilitating interactions with the objective of improving consideration of biodiversity and ecosystem services in decision-making. ^[2,3,4] This body of knowledge and experience shows that there is no one-size-fits-all configuration for an NBP as national circumstances are different amongst countries and can change over time. Hence, this guidebook provides insights into how countries have designed and managed their NBPs to be credible, relevant, legitimate and sustainable within their national context.

Who Should Use this Guidebook?

This guidebook has been developed for those interested in improving the integration of biodiversity considerations into decision-making processes at the national level, e.g., researchers, Indigenous Peoples and local communities, decision-makers, practitioners, National Focal Points of multilateral environmental agreements, etc.

Azerbaijan: "At the inception workshop [of the national ecosystem assessment], we spent a lot of time discussing how to create our platform [...] We referred to existing platforms around the world to find ideas [...] we took bits and pieces of ideas from other platforms."

How is the Guidebook Structured?

The guidebook starts by introducing the concept of an NBP and its usefulness to different stakeholders within the science-policy-practice landscape. It then introduces three attributes of NBPs (as science-policy-practice interfaces): credibility, relevance and legitimacy. These attributes make science-policy-practice interfaces effective, as social science and organisational management studies show, and can serve as guiding principles for the design, management and work of an NBP (see <u>Chapter 3</u>). The remainder of the guidebook describes the key elements of the process of establishing and managing an NBP. Throughout, we use quotes from the interviewed NBPs and their publications to illustrate how they managed a particular issue. The chapters are organised to systematically address key considerations in an iterative manner (see <u>Figure 1.1</u>). The final chapter provides a toolkit consisting of key messages, guiding questions and additional resources, which helps to reflect on all elements when designing or managing these platforms.

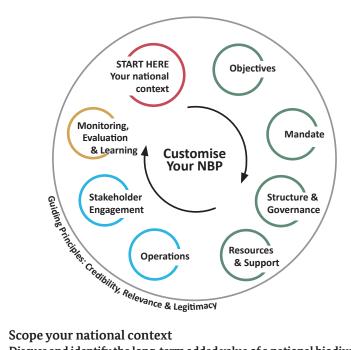


Figure 1.1: Customise your national biodiversity platform. Overview of key elements of the process of designing and managing a national biodiversity platform as described by interviewed NBPs, literature on science-policy interfaces and expert knowledge. The framing circle shows the consideration of the guiding principles of credibility, relevance and legitimacy at all stages. These steps are not sequential, and should be customised to your national context. The colours of the circles are reflected in the colour code of the chapters of this guidebook.

Discuss and identify the long-term added value of a national biodiversity platform in your country and start with what is already there. In all steps, have a focus on balancing credibility, relevance and legitimacy of your NBP. \rightarrow see Chapter 4 – Section 4.1

 \rightarrow see also Chapter 2 – Section 2.2 and Chapter 3

Define the objectives of your platform Identify goals and objectives by mapping existing structures, ongoing Objectives policy processes, national priorities, stakeholders and needs in knowledge and communication. \rightarrow see Chapter 4 – Section 4.1, Section 4.2 and Table 4.1

Obtain a mandate

Identify which stakeholders and existing institutions can provide a mandate to your NBP within their work. Determine what competencies the NBP needs to fulfil this mandate.

 \rightarrow see Chapter 4 – Section 4.2 and Chapter 5 – Section 5.1



Mandate

START HERE

context

Your national

Develop your institutional structure and governance processes Build a structure fit for the NBP's functions as well as realistic with regards to resources and support available and to ensure credibility, relevance and legitimacy. Ensure adaptability to changing institutional landscapes. Implement lean but effective governance processes. \rightarrow see Chapter 5 – Section 5.1 and Section 5.2

Resources & Support

Operations

Stakeholder

Engagement

Manage your resources and support system

Assess and cultivate your network, the strengths of your team, and your stakeholders, set a budget and resource plan and identify sources of support for different topics.

 \rightarrow see Chapter 5 – Section 5.1 and Section 5.3

 \rightarrow see also Chapter 6 – Section 6.1 and Section 6.2

Develop your work plan

Key aspects for the coordination of your activities are strong collaborations, prioritisation of activities, regular horizon scanning, flexibility and setting up monitoring systems.

 \rightarrow see Chapter 6 – Section 6.1, Figure 6.1 and Table 6.1 \rightarrow see also Chapter 7 – Section 7.1 and Table 7.1

Design your stakeholder engagement

Implement suitable and transparent structures for strong stakeholder engagement and cooperation to strengthen and legitimate your activities. \rightarrow see Chapter 6 – Section 6.2, Figure 6.1



Track, evaluate and learn from your work

In each stage of the work, flexibility and adaptation is necessary. Tracking your activities and the impact of your work will help you anticipate and overcome challenges. Embed reflection points within your processes to allow for learning experiences. \rightarrow see Chapter 7

PART 2: Introduction

2. INTRODUCTION TO NATIONAL BIODIVERSITY PLATFORMS

Key message: National biodiversity platforms are science-policy-practice interfaces which convene key stakeholders in dialogue and collaborations that lead to an improved consideration of biodiversity and ecosystem services in decision-making. These platforms can provide a wide suite of benefits to different stakeholder groups and rights holders.

2.1 What Is a National Biodiversity Platform?

Human well-being, long-term economic progress and biodiversity are inseparably linked. Realising local, national and international aspirations and biodiversity related commitments on sustainable development depends on healthy ecosystems (see Figure 2.1, <u>Box 2.1</u>). Therefore, decision-makers need access to knowledge on biodiversity and ecosystem services (BES) which fits their information needs. Further, different sectors of society need to be included in the dialogue on how conservation and sustainable use of BES and sustainable development can be realised.

For enabling such inclusive and meaningful discussions and collaborations across all sectors of society, multiple countries have established or are establishing sciencepolicy-practice interfaces for biodiversity at the national level – often called National Biodiversity Platforms (NBPs). The overarching goal of an NBP is to bring together key knowledge holders and decision-makers in collaborative relationships that lead to the better consideration of biodiversity and ecosystem services to society and human well-being in decision-making towards sustainable development. Examples of biodiversity-focused science-policy-practice platforms are the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), which operates at the international level, West African Biodiversity and Ecosystem Services (WABES) – Supporting the West African contribution to IPBES (see <u>Box 2.2</u>) and Biodiversity and Ecosystem Services Network (BES-Net), which operate at the regional (sub-global) level, supporting the IPBES work programme.

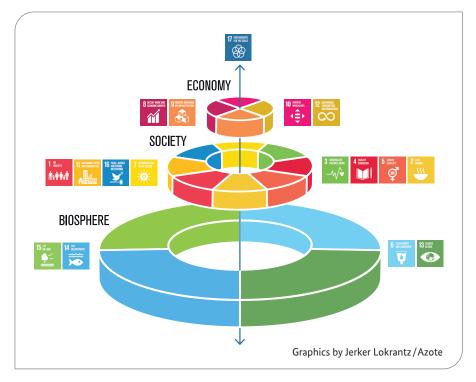


Figure 2.1: Biodiversity and sustainable development. Biodiversity is the foundation for human well-being, with many UN Sustainable Development Goals being underpinned by biodiversity and ecosystem services. (Illustration: Azote for Stockholm Resilience Centre, Stockholm University)

Box 2.1: Multilateral environmental agreements related to biodiversity and ecosystem services. Based on UNEP, 2015. Sourcebook of opportunities for enhancing cooperation among the biodiversity-related conventions at national and regional levels, pg. 2. ^[5]

Convention on Biological Diversity (CBD): the main objective of the CBD is to conserve biological diversity and ensure its sustainable use and the fair and equitable sharing of benefits arising from the use of genetic resources. URL: <u>www.cbd.int</u>

(Box 2.1 continues)

Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention): the main objective of the Ramsar Convention is the conservation and wise use of all wetlands through local, regional and national actions and international cooperation for achieving sustainable development. URL: <u>www.ramsar.org</u>

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): the main objective of CITES is to ensure that international trade in specimens of wild animals and plants does not threaten their survival. URL: <u>https://cites.org</u>

Convention Concerning the Protection of the World Cultural and Natural Heritage (WHC): the main objective of WHC is identification, protection, conservation, presentation and transmission of cultural and natural heritage of Outstanding Universal Value (OUV) to future generations. URL: https://whc.unesco.org

Convention on the Conservation of Migratory Species of Wild Animals (CMS): the main objective of the CMS is the conservation and sustainable use of migratory animals and their habitats. URL: <u>www.cms.int</u>

International Plant Protection Convention (IPPC): the main objective of the IPPC is to protect world plant resources, including cultivated and wild plants, by preventing the introduction and spread of plant pests and promoting the appropriate measures for their control. URL: <u>www.ippc.int</u>

International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA): the main objective of the ITPGRFA is the conservation and sustainable use of plant genetic resources for food and agriculture and to ensure the fair and equitable sharing of benefits derived from their use, in harmony with the CBD, for sustainable agriculture and food security. It recognises the enormous contribution of farmers to the diversity of crops that feed the world. URL: www.fao.org/plant-treaty

International Convention for the Regulation of Whaling (IWC): initially this convention, signed in 1946, set out to regulate the stocks of whales in the global oceans for the development of whale fishery. Later under the convention commercial whaling was prohibited and quota and schedules for traditional, aboriginal use were introduced. Throughout the evolution of the IWC it also instituted conservation activities such as plans to conserve certain whale species and guide the responsible development of whale watching. URL: <u>https://iwc.int/</u> Box 2.2: International science-policy-practice platforms on biodiversity and ecosystem services

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES): the main objective of IPBES is to "strengthen the sciencepolicy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development." ^[6] The objectives of its work programme are: assessing the state of knowledge, building capacity, strengthening the knowledge foundations, supporting policy, communicating and engaging with members and stakeholders, and improving the effectiveness of the platform. URL: <u>www.ipbes.net/about</u>

IPBES is supported by, for example:

West African Biodiversity and Ecosystem Services (WABES) – Supporting the West African Contribution to IPBES: WABES is a regional science-policy platform, which supports the work programme of IPBES. Funded by the International Climate Initiative (IKI), it was established to fill the need for a sub-regional forum for science and policy experts to exchange across disciplinary boundaries. It is a transdisciplinary consortium of representatives of universities, research institutions and policy bodies from all 15 West African states, brought together with support from African, German and international institutions. It works to build an interdisciplinary expert network which supports West African IPBES National Focal Points, assisting West African countries with concept development of their national biodiversity platforms and capacity-building of local expert communities in science-policy interfacing. Of particular note, it administers a Master of Science programme on "Managing Science-Policy Interfaces on Biodiversity & Ecosystem Services for sustainable development in West Africa – SPIBES", which trains early career African professionals in interdisciplinary thinking and methodologies for conducting ecosystem assessments. It is also developing a handbook with best practices and lessons learned for undertaking similar regional initiatives. URL: https://wabes.org

Biodiversity and Ecosystem Services Network (BES-Net): was initiated in 2016 with the goal to build capacity and steer up action for conservation by making use of IPBES products. As a network of networks it uses the science, policy and implementation experience of the three involved UN agencies (UNEP, UNDP and UNESCO) as well as their associated networks to support capacity building and cooperation on the ground. BES-Net also supports national ecosystem assessments. URL: <u>www.besnet.world</u>

2.2 Benefits of National Biodiversity Platforms

There are many benefits in establishing NBPs. Policy, science and other knowledge systems are connected in various ways (e.g., policy often aims to be evidence-based; science funding often relies on policy decisions), yet sometimes this relationship is not effective. ^[7] Science-policy-practice interfaces, of which NBPs are an example, are specifically intended to bridge this knowledge-action gap. For example, information is not presented in usable forms for policy or society, or research processes do not include valid and useful insights from multiple knowledge systems. Altogether, despite the growing knowledge on biodiversity and ecosystem services, decision-making is not proceeding consistently in the direction and pace which is needed to adequately address biodiversity loss. <u>Table 2.1</u> presents major benefits provided by NBPs. While <u>Table 2.1</u> summarises the major benefits that NBPs provide to various aspects of decision-making processes generally, <u>Figure 2.2</u> shows how these benefits map onto stakeholders across different professional backgrounds, disciplines, knowledge systems, economic sectors and social groups. Interviewed NBPs said that stakeholders have benefited from the NBP synthesising, translating and distilling knowledge from various fields into formats and language more accessible to various audiences. Further, by bringing different groups together, NBPs have facilitated the co-creation of new knowledge and solutions.

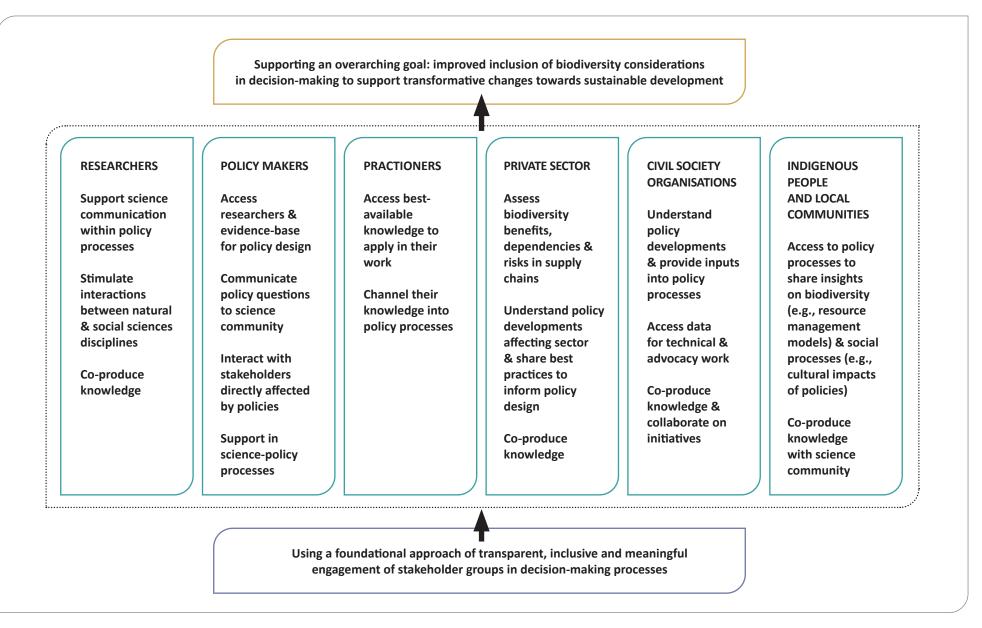


Figure 2.2: Using meaningful engagement approaches, a national biodiversity platform can enrich decision-making processes by providing targeted services and benefits to a wide range of stakeholders.

Table 2.1: Major benefits of national biodiversity platforms and examples from interviewed platforms

BENEFIT	EXAMPLES FROM INTERVIEWED NATIONAL BIODIVERSITY PLATFORMS
Forums where policy-makers are connected with knowledge holders in a two-way dialogue	Belgium: "The platform acts as a science-policy interface, bridging between the Belgian science community and policy initiatives at the national, European and global levels." Colombia: "Our platform has been particularly helpful in discussions about how to incorporate indigenous and local knowledge into the decision- making processes." Mexico: "A major benefit is to provide understanding of biodiversity issues to different sectors of society (not only decision makers) and to build a constituency for nature."
Being responsive to the information and problem- solving needs of various types of decision-makers	Azerbaijan: "We envision that the platform will synthesise discussions on biodiversity from different stakeholders and international conventions, and can therefore act as a hub for decision-makers providing an analysis of the situation." Belgium: "The unique policy impact is very difficult to measure at the national platform level though it is possible for some specific cases. For example, for invasive alien species, our role and impact are clear - we have the community of practice on this topic, support national and EU policy through different taskforces and advisory bodies, and support the national secretariat on this topic. We have very specific (qualitative) case studies to illustrate our impact." Brazil: "Overall, our platform helped to put the subject of biodiversity and ecosystem services more into the evidence-base for policy-making. We also trig- gered accelerated science-policy interface activities and since its establishment, other initiatives from actors involved in our work have been established." Colombia: "The Constitutional Court of Colombia required an impact assessment of mining nationwide. The NBP suggested using the IPBES framework and methods, which was subsequently adopted by the Court, and all institutions involved in the assessment." Mexico: "Few countries were able, as intensely as Mexico during this period [1997-2006], to develop the capacity to translate data from fundamental research into relevant information and to improve institutional capacities in order to develop products useful for decision-making as well as making all the information, products and methods publicly available. The Mexican experience, among other factors, prompted the Organisation for Economic Co-operation and Development to establish the Global Biodiversity Information Facility (GBIF). Mexico has been part of the governing board of GBIF since its inception, represented by CONABIO which played a decisive role in its development, orientation and in its line of work." ^[6] Switzerland: "We are in close con

Table 2.1 cont.

BENEFIT	EXAMPLES FROM INTERVIEWED NATIONAL BIODIVERSITY PLATFORMS
Organizing communities of practice	Belgium: "The communities of practice were initially established around emerging issues at that moment in time, e.g., ecosystem services, biodiversity and health, invasive alien species. These issues have now become mainstream in the international policy context. The community of practice on invasive alien species became relevant when the EU legislation on invasive alien species came into force and Member States had to implement it. We used the ca- pacity that we had developed on this topic to support national implementation activities [] there is a cooperation agreement between regions in which the Belgium NBP was identified as the key body to help implement it." Mexico: "CONABIO has formed teams of new professionals in biodiversity, thus creating important human capital for the nation."
Supporting and streamlining processes to fulfil international commitments	 France: "One particularly successful piece of work that came from our initiative was a mapping of existing activities by French stakeholders against IPBES policy options provided in the 'Summary for Policy Makers' of the pollinators assessment. This publication was used a lot to support non-governmental reporting to the CBD, French input to the EU Pollinators Initiative, and understanding of the existing landscape at the launch of the National Action Plan for Wild Pollinators, among others." Madagascar: "We contribute to the implementation of our ratified international commitments and conventions on protected areas, different ecosystems, biodiversity, climate change and [environmental] mainstreaming." West African Regional Platform – WABES: "The platform has provided guidelines to Sierra Leone, and supported its membership application process to IPBES. It supports all 15 West African governments, through their National Focal Points and other representatives, in the organisation of a national meeting."
Helping decision-makers communicate their information needs to knowledge holders	Belgium: "We were initially established to support research programming, research funding and mobilisation of data (open data access)."

Key message: Credibility, relevance and legitimacy are attributes of a national biodiversity platform which improve its influence and impact at the science-policy-practice interface. These qualities require active management in the design and work of a platform.

Why are credibility, relevance and legitimacy, also referred to as CRELE, important attributes for national biodiversity platforms?

Studies on the design and management of science-policy-practice interfaces have suggested that there are three attributes, or qualities, of such initiatives, which influence their effectiveness:

- Credibility refers to the "perceived quality, validity, and scientific adequacy of the people, processes and knowledge" and includes aspects like whether an actor perceives information as meeting standards of knowledge plausibility and technical adequacy. Sources of knowledge must be deemed trustworthy and/or believable, along with the facts, theories, and causal explanations invoked by these sources. ^[2,4,7] Credibility also implies supporting within-knowledge validation and crossknowledge exchange (e.g., science, practical, and indigenous and local knowledge).
- Relevance refers to the appropriateness of information provided in terms of scope, scale, timing, quality, and level of detail for an actor's decisions, or for the choices that affect a given stakeholder or rights-holder. ^[2,4,7]
- Legitimacy refers to the perceived "fairness and balance of the processs", e.g., if the processes run by science-policy-practice interfaces are seen as unbiased and meeting standards of political, social and procedural fairness. This also includes that they consider appropriate values, interests, concerns, cultural and gender norms, and specific circumstances from multiple perspectives. Audiences judge legitimacy based on who participates and who does not, the procedures

for choosing participants, and how information is produced, evaluated, and disseminated. When connecting knowledge to action, choices are made about which problems and potential solutions will be considered, and which ones will not. ^[2,4,7]

Accordingly, NBPs, as science-policy-practice interfaces, can be more effective by taking proactive measures to build credibility, relevance and legitimacy within their design and management.

Credibility, relevance and legitimacy depend on the context within which an NBP operates.

There are no universal and concrete conceptions of credibility, relevance and legitimacy because these attributes are sensitive to the particular science-policy-practice interface landscape and the perceptions of different stakeholders. For example, an activity of an NBP may be credible, relevant or legitimate to one stakeholder or rights-holder, but not another. Also, different stakeholders have different prioritisations of which attributes are most important. ^[9,10] For example, legitimacy (e.g., procedural fairness of the knowledge production process) may be a priority for government decision-makers, ^[2] while credibility (e.g., use of a strictly scientific peer review process) may be a priority for researchers. In another context, policy-makers may prioritise the usefulness of the knowledge (i.e., applicability, timing and accessibility) over the legitimacy of the knowledge production process. ^[10]

An NBP must make strategic choices on how to build its credibility, relevance and legitimacy in its design and management, to improve its influence and impact at the science-policy-practice interface.

NBPs can employ a variety of strategies in the crafting and management of their objectives and functions, institutional structure and processes, activities and outputs, and intended outcomes. ^[11] Common strategies that are used by science-policy-practice interfaces are presented in <u>Table 5.1</u>.

Synergies and trade-offs among credibility, relevance and legitimacy exist and can be actively managed.

Studies show, that to be influential and effective, science-policy-practice interfaces (and therefore, NBPs) can strive for maximising each attribute in its goals and objectives, structures, processes and outputs. However, there is an interdependent relationship between the attributes. In some cases, attempts to maximise one attribute may reduce another ^[2,3,4] (see <u>Table 6.1</u>). Also, there are situations in which these trade-off relationships may be bundled. For example, if a knowledge product is perceived as not credible, it may automatically also be perceived as not legitimate. ^[12]

To learn more about strategies for building and managing credibility, relevance and legitimacy throughout the lifetime of an NBP, see <u>Table 5.1</u> in <u>Chapter 5</u> and <u>Table 6.1</u> in <u>Chapter 6</u>.

PART 3: Establishing and Managing a National Biodiversity Platform

4. OBJECTIVES OF A NATIONAL BIODIVERSITY PLATFORM

Key message: There is no "one size fits all" for designing a national biodiversity platform. Discuss and identify the added value of a national biodiversity platform in your country and build on what is already there. Objectives and design should be tailored to context. Aim for inclusive and adaptive governance structures.

4.1 What are Potential Objectives of a National Biodiversity Platform?

The overarching goal of NBPs is a better inclusion of biodiversity and ecosystem services considerations in decision-making towards sustainable development. The main objectives that interviewed NBPs have focussed on to meet this goal are:

- Enhance knowledge-brokerage amongst science, policy, practice and society for more informed and inclusive decision-making processes;
- Build (responsive) networks, alliances and communities of practice for joint problem solving;
- Build capacity and facilitate the creation of enabling environments for stakeholders to engage with each other;
- Support national and sub-national governmental processes;
- Support and connect biodiversity-related international and regional (science-) policy processes with the national context and local expert communities;
- Enhance knowledge and raise awareness of biodiversity topics relevant for science, policy, practice and civil society to build a constituency for nature.

The following quotes from interviews provide examples of how selected NBPs have operationalised some of the objectives listed above. One particular avenue that NBPs have used is to take a leadership role in national ecosystem assessment processes (see example in <u>Box 4.1</u>).

Azerbaijan: "The NBP plays a key role in validating the national ecosystem assessment drafts. It also takes a management role in overseeing the NEA. It is also a platform through which its members can provide reviews and recommendations on the NEA."

Brazil: "BPBES places itself as a knowledge broker; by fostering such an open dialogue between science and society it can also minimise 'politicisation of science' and 'scientisation of policy."^[13,14]

France: "Many of the activities of the French Foundation for Biodiversity Research are meant to guide and fund research that can inform policy and stakeholders; we support the science community in designing their research goals to ensure policy and stakeholder relevant questions."

France: "The National Focal Points for the CBD, CITES and the UNCCD request input from the NBP in reviewing documents for these policy processes, either those relating to the institutional relationships between IPBES and those multilateral environmental agreements or those related to IPBES topics (e.g., uptake of IPBES assessments)."

Mexico: "CONABIO gathers, generates, integrates and synthesises the latest and most reliable information related to Mexico's biological and cultural diversity and make this available for the public, for society to know, value and conserve the natural wealth of Mexico and for decision makers to develop policies to improve the quality of life of all society."

Box 4.1: National biodiversity platforms supporting national ecosystem assessments

NBPs are highly useful for supporting the implementation of national-level policy processes. One example of a policy-supporting process is a national ecosystem assessment (NEA), which is an expert assessment and synthesis of existing knowledge on biodiversity and ecosystem services, framed around national policy questions. NEAs typically take several years to complete and involve many of the tasks that NBPs are often well-suited for doing, in terms of having the expertise and resources within their team and extended network, to support conducting NEAs in collaboration with other stakeholders. Some activities by NBPs that may benefit an NEA process:

- Organising consultation processes (e.g., for developing and reviewing NEA scoping reports or drafts);
- Organising interactive dialogue events for co-production of knowledge, including with Indigenous Peoples and local communities (e.g., for developing scoping/draft documents);
- Broad sharing of information (e.g., producing targeted knowledge products which share NEA results to stakeholders).

Interestingly, sometimes NBPs have been established as a structure with an initial mandate to support the NEA process for decision and policy making (Figure 4.1). However, the NBP may also adopt other goals, objectives and activities at the science-policy-practice interface, which are unrelated to the NEA process and are beyond the lifetime of the NEA.

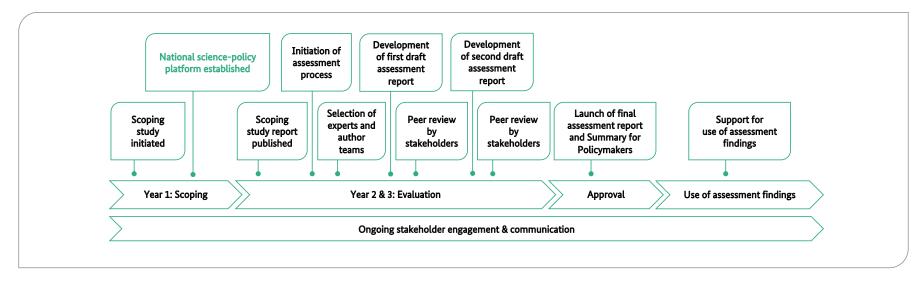


Figure 4.1: In this example, a national biodiversity platform is established to support the implementation of a national ecosystem assessment (see Year 1: Scoping). Here, the NEA is the first activity or output within the portfolio of the work of the NBP. However, the NBP may also adopt other goals, objectives and activities at the science-policy-practice interface, which are unrelated to the NEA process and continue beyond the lifetime of the NEA. (Illustration: <u>UNEP-WCMC 2023</u>)

4.2 Defining Objectives and Mandate

As different circumstances prevail in every country, the need for and purpose of a national biodiversity platform (NBP) differs. The design of an NBP should align with the needs, opportunities and constraints of the national context. There might already be networks and institutions in place that serve the purpose of a science-policy-practice interface that could take on the role of an NBP. Instead of duplicating existing structures, try to engage them.

An NBP should be able to clearly identify and address gaps at the science-policypractice interface within the national context. Once the gaps have been identified, the purpose of having an NBP becomes clearer and this helps to define its objectives and mandate. Gaps can be identified by mapping a) existing science-policy-practice initiatives and mechanisms, b) knowledge needs, c) relevant policy processes, d) national priority and e) stakeholders. Ideally, these exercises are done together with relevant stakeholders and knowledge holders.

a) Mapping existing science-policy-practice initiatives and mechanisms: Are there existing initiatives at the science-policy-practice interface? If so, avoid duplication of goals, mandate and activities and design the NBP to strengthen ongoing work, fill gaps and create synergies across these initiatives. This is also important for building the credibility, relevance, legitimacy, sustainability and impact of the platform in the long term. Think about the following questions:

- Would the existing structures be suitable for taking on a role as an NBP?
- Are these initiatives respected (credible and legitimate) knowledge brokers?
- What would be needed to create synergies among existing initiatives and to fill potential gaps? Are additional (new) structures needed?
- What knowledge exchange or capacity-building activities might be missing?

Belgium: "Our mandate is now clearly defined. Some activities are clearly not in our portfolio (sometimes just for historical reasons), for example, we are not the National Focal Point for the Convention on Biological Diversity, we do not address the topic of linking biodiversity and sustainable development and we are not engaged in public awareness-raising activities. However, we work with other groups in Belgium who are working on these topics, to ensure that there are synergies."

Cameroon: ""Governments are burdened by existing responsibilities of multiple platforms. [...] The platform has to draw on existing national platforms in order to evidence how it would be useful. The existing National Biodiversity Committee was constantly being asked to respond to global expectations (e.g. attending Conferences of Parties, etc.), but it was desperately in need of credible viable information to respond to these requests. Therefore, a science-policy platform was highly necessary and relevant to advise the existing biodiversity committee [...] a platform through which science-based information could be gathered and validated to inform the outputs of the National Biodiversity Committee and other decisions and policy-making instances. Based on this utility, it was easy to convince the minister in charge of the environment to establish the science-policy NBP, because they framed it as an adaptation and strengthening of the existing committee, to better fulfil its role."

Mexico: "CONABIO was created in 1992 with a clear mandate to serve as the national biodiversity platform for science-policy interface and to follow up on biodiversity-related conventions. When IPBES was created, the National Focal Points for IPBES were also those for the CBD's Clearing House Mechanism [both housed within CONABIO]. It is essential to avoid duplication of efforts by creating 'national biodiversity platforms' only within the framework of IPBES."

Switzerland: "The IPCC National Platform was already established within the Academy of Sciences, therefore they served as a role model and facilitated the establishment of a similar structure for IPBES." **b) Mapping knowledge needs:** Is there a need for general awareness and understanding of the relevance of biodiversity for the well-being of society, for different economic sectors, and/or for broader policy areas? The NBP could facilitate the synthesis and dissemination of existing knowledge (e.g., conducting a national ecosystem assessment, sharing results of IPBES assessments). The following quotes illustrate how selected NBPs include and filled knowledge gaps.

Brazil: "There were no actors (e.g., NGO, governmental) in Brazil which synthesised BES knowledge (e.g., as does the Humboldt Institute in Colombia or CONABIO in Mexico). BES knowledge is split amongst various ministries (Environment, Science and Technology, Foreign Affairs, Agriculture, Planning) which neither communicate nor collaborate. The idea was to synthesise knowledge of BES in Brazil not only to improve the IPBES Americas Regional Assessment, but also to bring it to governments at a higher level, especially for integration into economic development planning."

South Africa: "The key mandate of our platform is to undertake research to explore, reveal, celebrate, champion and report on biodiversity for the benefit and enjoyment of all South Africans."

c) **Mapping ongoing policy processes:** Is there a need to inform a concrete policy process (e.g., reform of land-use policies)? The NBP could provide customised knowledge products (e.g., policy briefs) and host events (e.g., workshops) that support the assessment of various policy design options without taking a position on a particular outcome.

South Africa: "Though South Africa had a history of scientific evidence-based policy development, a gap or lack of a formal mechanism existed in terms of translating and aligning scientific findings to inform decision and policy making. Hence, the national platform was established to serve as a conduit for scientific research findings, and other evidence, into the decision-making processes." d) Mapping national priorities: What are current and emerging issues of relevance to the national development agenda? Which topics have received too little attention in the existing science-policy-practice landscape? The NBP could specialise in issues of societal relevance that are already of interest to stakeholders and rightholders or which should be part of discussions on national policy. Examples of the policy-relevant focus of inter-viewed National and Regional Biodiversity Platforms are:

- Agriculture and food security (e.g., France, Mexico);
- Biodiversity and health (e.g., Belgium);
- Climate change mitigation and adaptation (e.g., Brazil);
- Coastal-zone management (e.g., Mexico, Sweden);
- Ecological restoration (Mexico);
- Environmental health (Nigeria);
- Finance and investment (e.g., Payments for Ecosystem Services) (Switzerland, Vietnam);
- Indigenous and local knowledge (e.g., Colombia, Brazil, Mexico, Sweden);
- International treaties (e.g., South Africa);
- Invasive species (e.g., Belgium, Mexico);
- Land degradation, water resource management and transboundary wildlife migration (e.g., Central Asia);
- Marine ecosystems (e.g., Mexico);
- Mountains (pasture) ecosystems (e.g., Azerbaijan);
- Natural Capital Accounting (Nigeria);
- Oil and gas (e.g., Azerbaijan);
- Pollination (e.g., Brazil);
- Tourism (Switzerland);
- Transboundary ecosystems (e.g., Mesoamerican Biological Corridor Mexico and other Latin American and Caribbean countries);
- Urban planning and architecture (e.g., Switzerland);
- Wildlife management (e.g., South Africa).

e) Mapping stakeholders: Which stakeholders and knowledge holders could make use of or provide information on biodiversity and ecosystem services? For example, stakeholders may need help with building their capacity to engage in a policy process (e.g., UNCCD, UNFCCC, CBD, IPBES, national ecosystem assessments, etc.). In this regard, an NBP could provide tailored approaches to these stakeholders.

Stakeholders and knowledge holders which are commonly relevant to an NBP's work include: research institutions, government institutions, private sector, Indigenous Peoples and local communities, civil society organisations (e.g., NGOs, religious groups) and other organisations working at the interface of science, policy and practice.

A stakeholder mapping exercise (see <u>Figure 4.2</u>) and the following guiding questions can provide some orientation on stakeholders to engage:

- Which stakeholders have priorities and dependencies on biodiversity and ecosystem services (high or low stake)?
- Which stakeholders have influence in decision-making processes on biodiversity and ecosystem services (high or low influence)?
- Are there ongoing decision-making processes where stakeholders could benefit from better information? What are their information needs and what are their information sources so far?
- Which stakeholders need to build their capacity to engage and be represented at the science-policy-practice interface?
- What are opportunities for engaging with these various segments of stakeholders?

For further information on stakeholder engagement approaches, see Chapter 6 - Section 6.2.

France: "We focus our work on solution-oriented findings from IPBES to propose operational recommendations [to stakeholders, such as the private sector] that could eventually lead to increased effectiveness in implementation, rather than just providing research results."

Switzerland: "Our NBP studied how well policy options offered in the IPBES Global Assessment and the IPBES Regional Assessment for Europe and Central Asia have been taken up by different sectors, and which are, based on the need for action, the most important options for the specific sectors."

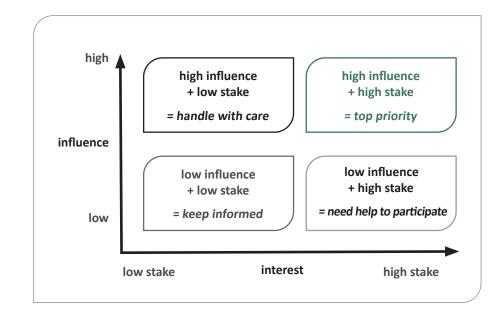


Figure 4.2: Example of mapping the importance of an engagement process for stakeholders. Stakeholders can be mapped along the two axes of influence and interest (or substitute with other criteria). The results can inform the development of targeted stakeholder engagement strategies. Figure adapted from IAEA (2021) Stakeholder Analysis. ^[15]

Reflect on the results of the above mapping exercise to define the added value (purpose) of an NBP. The insights of this stocktaking exercise should help you answer the follow-ing questions:

- What knowledge needs will be met?
- What topics of national relevance will be targeted?
- Which ongoing or emerging policy processes will be relevant?
- Which stakeholders will be engaged?
- Which gaps at the science-policy-practice interface will be addressed?

From this base, bring together the stakeholder groups that may be potentially involved in hosting, managing or engaging with the NBP, to jointly define the mandate and the elements of a strategic plan – goals, objectives, strategies (programmes), activities and outputs (see Figure 4.3 for an example of strategic planning and <u>Table 4.1</u> for activities which could support programming). <u>Box 4.2</u> describes how a group of stakeholders across Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan were convened to discuss establishing a regional biodiversity platform for Central Asia and the outcomes of their first scoping workshop.

Overall, an NBP should ensure that its programmes, activities and outputs:

- Are credible, relevant and legitimate;
- Support neutral knowledge brokering; and
- Bring together appropriate stakeholders, resources and capacities to achieve its objectives.

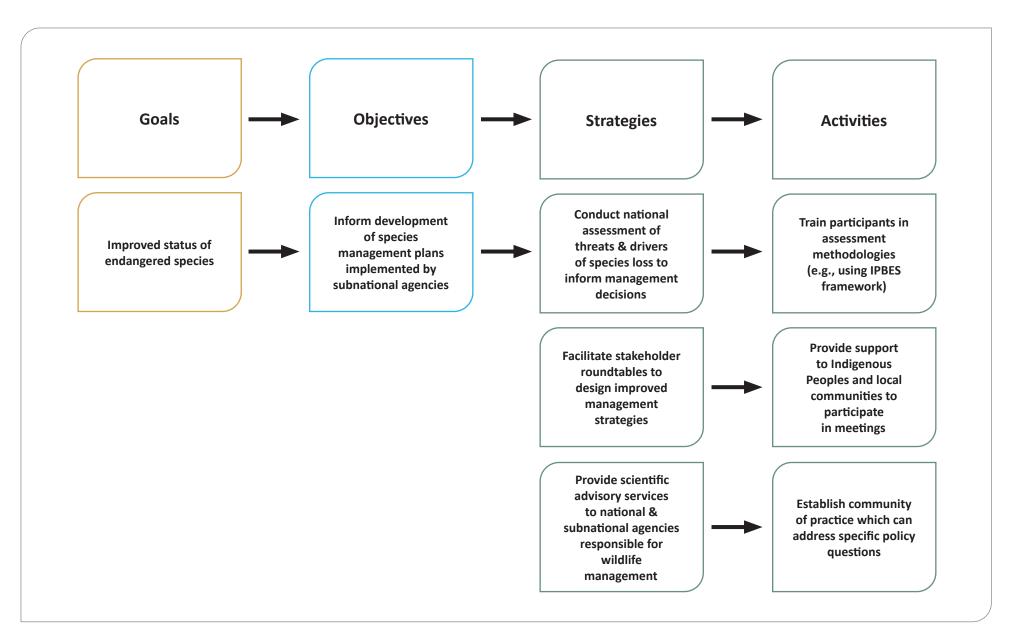


Figure 4.3: Example of strategic planning for national biodiversity platforms. Example of elements of a strategic plan in which a national biodiversity platform first defines its goals and objectives and then links these with corresponding strategies, activities and outputs which can support the realisation of those goals and objectives.

Box 4.2: Pathways to a regional biodiversity platform in Central Asia. Based on Paulsch and Shakhnazarov (2021) Pathways to a Regional Biodiversity Platform in Central Asia. [16]

A group of local stakeholders in Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan, with the support of a European environmental consultancy and the Norwegian Environment Agency, identified the need for a regional science-policy-practice interface to enhance the capacity of the national governments and stakeholders to address biodiversity and ecosystem services issues.

To kick-start the process, interviews were conducted with local stakeholders to identify basic regional science-policy-practice needs and select organisations were invited to a scoping workshop attended by scientists, policy-makers, networks of conservation experts, practitioners (e.g., farmers), junior researchers, and NGOs. They sought to understand their different visions for a regional platform, biodiversity issues of national and regional priority, activities and capacities and design options. They identified that land degradation, pasture management, water conservation, wildlife management and protected areas management could only be tackled

with a transboundary approach: sharing methodologies and lessons learned from

existing solutions in their own countries. A cross-border initiative could generate new knowledge and standardise and improve access to existing data to fill knowledge gaps. It could improve communications amongst stakeholders on biodiversity issues. Finally, it could leverage and improve the impact of international development cooperation investments and strengthen political cooperation between governments.

Altogether, these stakeholders have complementary capacities (i.e., knowledge, skills, networks, infrastructure, funding, legitimacy and credibility within their national contexts, etc.) to meet the needs of a regional institution and have agreed to take further discussions in developing a collaboration. As resources are quite limited, they agreed on the approach of first using a lean design of professional and stakeholder networks and a biodiversity knowledge database. They also agreed that they could move towards long-term goals of formal intergovernmental ties and undertake scientific assessments as more capacity is developed, internal relationships are built and lessons are learned.

≯

General objective Exploring pathways towards strengthening the sciencepolicy-practice interface in Central Asia

Interviews with local stakeholders Identifying the sciencepolicy-practice interface needs at the national and regional levels

Mapping existing initiatives Identifying existing formal and informal institutions in the five countries which work at the sciencepolicy-practice interface and could address these needs Scoping workshop Bringing together participating stakeholders to discuss visions for a regional platform, biodiversity issues of national and regional priority, science-policypractice activities and capacities, and institutional design options

Mapping next steps

Agreement to continue discussions towards developing a collaboration:

(1) Start with a lean structure of professional and stakeholder networks and a biodiversity knowledge database

(2) Work towards formal intergovernmental ties and undertaking scientific assessments

Figure 4.4: Pathways to a regional biodiversity platform in Central Asia. Example of the early stages of a process of establishing a regional biodiversity platform in Central Asia. Stakeholders across Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan were convened to identify its added value in the regional science-policy-practice and national contexts as well as next steps towards a formal collaboration.

OBJECTIVES	POTENTIAL ACTIVITIES
1. Enhance knowledge brokerage amongst science, policy, practice and society for more informed and inclusive decision-making processes	 Identify information needs and sources in science, policy and practice (horizon scanning, mapping of knowledge, gap analysis, etc.). Synthesise, translate and share knowledge on biodiversity in ways that encourage use by decision-makers (e.g., conduct ecosystem assessments, develop targeted knowledge products on issues such as e.g., policy brief on IPBES pollination assessment for the agriculture sector). Synthesise, translate and share knowledge on decision-making processes (e.g., policies, plans, programmes) so that knowledge holders can better address information needs of decision-makers. Create tools and processes which support science, policy and practice (e.g., models, risk assessment protocols, decision-making frameworks or methodologies, national ecosystem assessments, etc.). Mobilise data: data publication, creation and management of databases, development of standards and tools for data storage and use. Coordinate dialogue processes for target groups in science, policy and practice to co-design research questions, co-produce knowledge and co-design options for the management of biodiversity considerations into policies and practice across jurisdictions and sectors. Create, host and maintain new or existing databases of biodiversity and ecosystem services, institutions, programmes, projects, experts, research teams, events and funding opportunities.
2. Build (responsive) networks, alliances and communities of practice	 Identify and mobilise stakeholders, knowledge holders and sectors that could benefit from integrating biodiversity into decision-making (e.g., mapping of stakeholders and ecosystem services opportunities). Enable timely contact between experts and other knowledge holders when needed (e.g., policy-makers require an answer to a specific question; or scientist seeks input on policy-relevance of proposed work). Identify common ground and coordinated strategies for addressing biodiversity issues. Coordinate or support transdisciplinary communities of practice (e.g., biodiversity and health, invasive alien species). Establish mobilisation and response mechanisms of networks, alliances and communities of practice.
3. Support national and sub-national governmental processes	 Inform on the development of policy and research initiatives at local (e.g., cantons, cities) to national levels (e.g., formulation of National Biodiversity Strategy and Action Plans (NBSAPs). Inform on the development of national and international funding schemes. Inform on the development of educational programming (e.g., curricula for schools and universities).

Table 4.1: Key objectives of national biodiversity platforms and activities supporting their realisation. Based on interviews with national biodiversity platforms.

Table 4.1 cont.

OBJECTIVES	POTENTIAL ACTIVITIES
4. Support international (science-)policy processes and connect them with the national context and local expert communities	 Function as, host, support or collaborate closely with National Focal Points for international policy processes such as CBD, CITES, CMS, IPBES, IPCC, IUCN, Ramsar Convention, UNCCD, UNFCCC, SDGs, etc. Streamline reporting mechanisms, data collection and indicators at the national level towards different policy frameworks where possible. Increase synergies between activities and communication processes of international policy processes, for example: gain access to and share data, develop coherent national positions across the processes, support national nominations, raise awareness. Support regional biodiversity initiatives, such as WABES – Supporting the West African contribution to IPBES, the ECA Network Europe and Central Asia organisations engaging in IPBES, the Biodiversity Partnership (consortium of funding organisations promoting pan-European research on biodiversity and ecosystem services), EKLIPSE (a knowledge and learning mechanism for biodiversity and ecosystem services).
5. Build capacity and facilitate the creation of enabling environments	 Support the coordination of platforms and events for capacity-building, stakeholder networking, etc. Support stakeholders and knowledge holders in participating in science-policy-practice processes (e.g., travel funding, translating curricula vitae, writing cases for support for home institutions). Incubate working relationships based on trust and mutual learning by creating inclusive processes for fair and transparent engagement of stakeholders and knowledge holders.
6. Raise awareness of biodiversity topics of relevance for science, policy, practice, public, civil society	Develop targeted communications tools or outputs (e.g., website, newsletters, mailing lists, reports, fact sheets, press releases, direct responses to inquiries from the public, etc.).

Key message: NBPs have different levels of complexity in their institutional arrangements and may evolve over time. Governance and management structures should involve stakeholders which enable achieving objectives, leveraging resources and building influence. Diversify the resource base for long-term sustainability. Build a team with diversified competencies.

5.1 Designing Institutional Structure and Governance

There is no one-size-fits-all configuration for an NBP. As circumstances vary from one country to the next, the design of an NBP should be customised according to the needs of the science-policy-practice interface, national socio-environmental priorities, stake-holder dynamics, and available resources for operation. ^[11,17] Accordingly, NBPs can have different levels of complexity and different forms of engagement of stakeholders (see <u>Figure 5.1 A-C</u>). For example, an NBP may start as:

- An informal network of stakeholders interested in biodiversity issues;
- A communication platform or discussion forum which shares information (e.g., through publications, websites, presentations) with decision-makers;
- A series of ad-hoc meetings between stakeholders and knowledge holders on issues of national relevance that can emerge within a short time and require a policy response;
- A working group, project or scientific assessment for a clearly defined purpose;
- A long-term organisational body with coordination, advisory board, working groups, and a clearly defined mandate and work programme.

Further, the institutional design may evolve over time to adapt to parallel changes in these factors. <u>Figure 5.1 A–C</u> provides examples of how the constituency and activities of selected interviewed NBPs evolved in response to newly available resources and changes in the national science-policy-practice landscape. The following quotes are other examples of how select NBPs evolved within their lifetime.

Belgium: "Initially, we were closer to scientists, giving hands-on support (e.g., data mobilisation). But as we became more active at the interface, we shifted to being a coordinating body of science-policy initiatives. We have now better reflected this development in our new strategic plan."

Germany: "Platforms may evolve over time. At the beginning, you have an idea of how things can be done, but later you realise that changes are needed. It may happen, for example, that certain aspects of the platform's work are taken over by a different institution in the course of time. When the conditions change as such, the role and tasks of a platform may also change."

Mexico: "During its first phase (1993 to 1995), CONABIO was dedicated to implementing the then incipient international standards related to biodiversity database structures and supporting projects to obtain them. In a second phase (1995 to 1998) it began to produce analyses and documents of national importance, partially on the basis of the data already obtained, but still without it being possible to say that there were regular users, leaving aside the strictly academic ones. However, the collection of data had grown substantially. In the third phase (1998 to date), CONABIO has been receiving a growing demand for advice, starting with those related to monitoring forest fires, managing forest species and prioritising conservation actions. Currently, the institution advises on a regular basis, and by legal provisions, to different departments of the federal government."

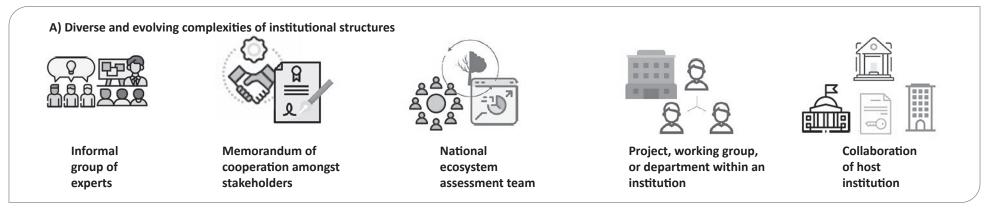


Figure 5.1 A: There are a range of institutional structures that a national biodiversity platform can adopt depending on its starting point and objectives. Further, the initial institutional structure can be adapted to meet changing circumstances: science-policy-practice interface needs, national socio-environmental priorities, stakeholder dynamics, and available resources for operation. Figure based on data from interviewed national biodiversity platforms.

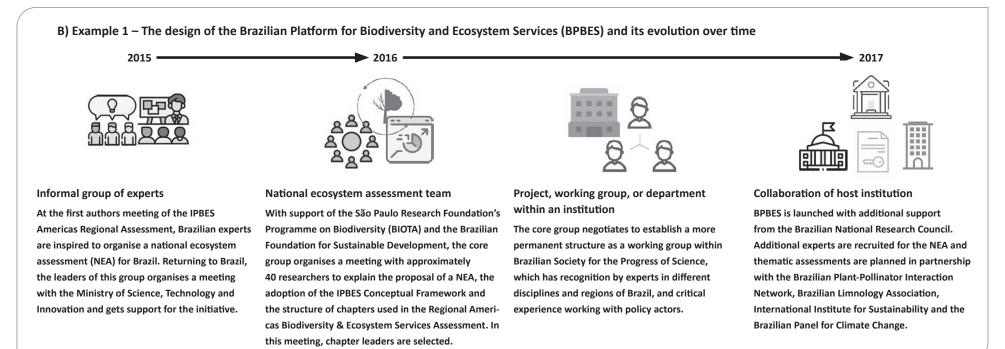
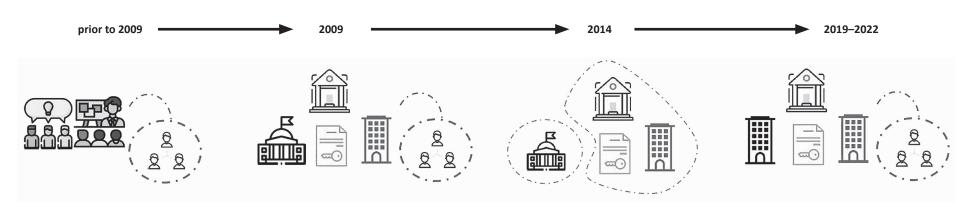


Figure 5.1 B: The Brazilian Platform for Biodiversity and Ecosystem Services formalised its institutional structure as the core team adopted new projects, entered new partnerships and raised more resources to expand their activities.



C) Example 2 – The design of the German Network-Forum for Biodiversity Research (NeFo) and its evolution over time

NeFo is conceptualised within EPBRS (European Platform for Biodiversity Research Strategy), a European network established by the EC Directorate-General for Research

Informal network of experts

and Innovation, with one representative each from the research ministry, environmental ministry and a research organisation of each partner country of the EU Funding Programme. Collaboration of host institutions

NeFo is launched as a project funded by the German Ministry of Education and Research (BMBF), and carried out by the Museum of Natural History Berlin (MfN), the Helmholtz Centre fo Environmental Research – UFZ and the University of Potsdam, and supported by DIVERSITAS Deutschland. NeFo manages IPBES-related activities to support the government (especially from 2012–2014).

Amended collaboration of host institutions

The BMBF and the German Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) establish the German IPBES Coordination Office at the project management agency of the German Aerospace Center (DLR). It takes over the management of many IPBES-related activities.

Amended collaboration of host institutions

With the end of funding by the BMBF in 2019, a new cooperation between the MfN, the Helmholtz Centre for Environmental Research – UFZ and the Leibniz Biodiversity Research Alliance is being established.

Figure 5.1 C: The German Network Forum for Biodiversity Research was initially a project (demarcated in the figure as the team grouped within a dotted-line circle) of another science-policy-practice interface and evolved into a collaborative project of several research and academic institutions. Its structure and activities are amended according to availability of resources and the entrance of other organisations within the biodiversity science-policy-practice landscape.

NBPs that are (or are housed within) formal institutions within the science-policypractice landscape are likely to have both a governance body and a core management team. The governance body is responsible for guiding the strategic direction of the NBP and assisting in building the network and resources to achieve its objectives. The management or core team is responsible for executing the strategic plan.

Belgium: "Our team sets up an annual workplan based on user needs and horizon scanning. We develop a strategy on a four year basis, looking at the international landscape – the current context and what we expect in the next few years – to ensure that what we do will be relevant. This starts with a group of experts internally drafting a strategy that is discussed with the Steering Committee, which decides whether it is a good way forward. Then we make a detailed annual implementation plan."

Germany: "An advisory board persisting over the entire funding period could have helped with giving NeFo a stronger standing, position and recognition (and through this, legitimacy), via ownership and responsibility amongst various stakeholders."

Experience from interviewed NBPs shows that a well-designed governance body (e.g., Steering Committee, Council, Advisory or Stakeholder Board, etc.) includes the stakeholders and knowledge holders which can lend the NBP the credibility, relevance, legitimacy and resources to accomplish its objectives, execute its mandate (if any) and maintain sustainability. Based on the results of the stock-taking (mapping) exercises in <u>Chapter 4 – Section 4.2</u>, bring together stakeholder groups that could meet these needs and that may be potentially interested in governing and/or managing aspects of the NBP in a substantial way, to define the institutional arrangements.

France: "The key is to have a strong network of committed people, reaching out to the three circles – policy (through several ministries), research (through the main research institutions) and practitioners (building on existing networks interested in biodiversity) – to fulfil the various functions of an NBP. It will then take several years to strengthen the network and make it grow." The following are considerations for an NBP's institutional structures, which will promote inclusiveness, transparency, accountability and generally, smooth and efficient operations:

- Aim for building access to decision-making forums and resources (e.g., expertise, funding, in-kind support) via the extended networks of collaborators within and beyond the governance bodies.
- Enhance representation of and collaboration between different geographical regions, jurisdictional levels, expertise, sectors and knowledge types, which may be currently disconnected within the science-policy-practice landscape.
- Stablish lean mechanisms for ensuring the quality of activities and outputs.
- Ensure clear outline of roles and responsibilities of members of the governance bodies and management teams, by asking for example:
 - How membership is determined (e.g., eligibility criteria, renewals of terms of work)?
 - What resources members will provide to support the platform (e.g., core funding, in-kind support, seconded staff)?
 - Who participates in setting agendas, calling ad-hoc meetings, etc.?
 - Which decisions are made by consensus, majority or executively?
 - Who can participate in decision-making (e.g., can observer members vote)?
 - How to manage conflicts of interest (e.g., tensions between funding sources and knowledge production processes)?

Colombia: "We have an open process: any indigenous and local community can submit a letter to the committee making a request to join. However, we cannot have an assembly. We are not closed, but we are composed of approximately 10–15 institutions, which are coordinators for their sectors or network."

France: "The NBP is hosted by the French Foundation for Research on Biodiversity (FRB). The NBP was set up by a decision of the ministries primarily interested in IPBES (Research, Foreign Affairs and Environment), who drafted our Terms of Reference. FRB receives funding from the ministries of research and environment to operate, among other additional sources of funding. There are currently 244 institutions on the FRB Stakeholder Advisory Board, one of its governance bodies which is organised into sub-groups. Heads of the sub-groups are members of the NBP; we work with them rather than the full Board, in order to make it manageable. They attend meetings to receive information and provide input from a stakeholder perspective, but they do not make decisions (decisions are up to the ministries)."

The interviews with established NBPs uncovered a variety of institutional arrangements which ranged from simple to complex structures. It could be observed that typically in developed countries, research centres commonly took the leadership role in hosting NBPs; whereas in developing countries, NBPs were mostly housed within government departments at the national level. Examples of types of institutions which were involved in establishing or hosting NBPs are:

- Research institutes and Academies of Sciences (e.g., Brazil, Colombia, Germany, Switzerland);
- National and/or sub-national government bodies, such as departments, interministerial coordination bodies, etc. (e.g., Democratic Republic of the Congo, Madagascar, Mexico, South Africa, Sweden, Vietnam);
- Regional networks of science-policy-practice interfaces (e.g., ECA Network).

There is also a broad set of other interesting examples of configurations which have blended constituencies on their governance bodies:

- Cameroon: first there was an informal working group consisting of representatives of government ministries, an association of Indigenous Peoples and local communities and universities, and it has now evolved into an interministerial committee;
- Denmark: cooperation between major universities and a government ministry;
- France: consortium of research institutes, universities, private sector, government ministries;
- Morocco: consortium of government ministries, NGOs, association of local governments.

Azerbaijan: "We consulted with legal experts to provide possible models for the structure of the NBP which could be sustained in the long term (10–20 years); 3–4 models were deliberated upon."

Brazil: "Being independent from government is not always the best option. While there is no compromise in the credibility of assessment results which would hinder uptake by the government and there is enormous flexibility (e.g., to get the best results, bringing in the right people, etc.), you will need to find means of getting your conclusions up to policy-makers."

Cameroon: "Cameroon's experience of putting in place a platform with a specific mandate for coordinating national assessments on biodiversity and ecosystem services was successful. We looked at the current landscape for coordination of biodiversity assessments and what could be leveraged through that to achieve a successful contribution and oversight. There was a pre-existing platform, the National Biodiversity Committee (NBC), based in the Ministry of Environment, which was charged with coordinating interventions, monitoring, and reporting on national implementation of global commitments on biodiversity. It was an inter-ministerial body. There was a capacity issue regarding available and credible information required for its decisions. Discussions were carried out with and within the ministry in charge of the environment on the value of having a national biodiversity platform that could supervise scientific information assessments and provide credible information to meet the policy needs of the NBC and the Ministry. At that time, the government had commenced the process of developing a new phase for its 2010–2020 national development strategy, which was getting to term. The platform offered a window of opportunity for integrating information into emerging policy needs. Because the ministry recognised the need, it was an easier task. The NBP is now a sub-committee of the National Biodiversity Committee, with a clearly defined mandate, and seeks to ensure a truly multi-stakeholder character."

Germany: "NeFo does not work with local stakeholders; it is only engaged with nature conservation NGOs and other stakeholders at federal level. But this was identified as a point for improvement; it would greatly benefit any platform to make links to different jurisdictional levels and especially implementation at the local and regional level."

5.2 Pursuing Credibility, Relevance and Legitimacy in NBP Operations

Institutional processes are the framework of approaches and practices of working that are used by the NBP to execute its strategic plan, achieve its objectives and fulfil its mandate. As with the design of institutional structures, an important consideration for designing processes is to embrace qualities of inclusiveness, transparency and accountability – as some of the foundations for building credibility, relevance and legitimacy. <u>Table 5.1</u> showcases overarching common strategies used by science-policy-practice interfaces to build their credibility, relevance and legitimacy and examples of how established NBPs have operationalised these within their institutional structures or processes.

Table 5.1: Common strategies used by science-policy-practice interfaces to build credibility, relevance and legitimacy. Based on van der Hel and Biermann (2017) The authority of science in sustainability governance: a structured comparison of six science institutions engaged with the Sustainable Development Goals. ^[18]

CREDIBILITY	EXAMPLES OF USE OF STRATEGY BY INTERVIEWED NATIONAL BIODIVERSITY PLATFORMS
Peer Review: ensure scientific quality through formal procedures for (extended) peer review of knowledge products	 France: "The quality of the work of the NBP, especially in preparation of the agenda items for IPBES plenaries, was acknowledged and strengthens the presence of the NBP in the policy-making landscapes." Switzerland: "Experts are required to declare conflicts of interest when participating in knowledge production processes for products addressed to policy makers." Colombia: "As the IPBES principles look for credibility and legitimacy, our processes are based on external and open review processes and calls, which invite any sector knowledgeable in biodiversity and wanting to assist in conducting an assessment."
Credentials: engage knowledge holders which hold distinguished credentials	South Africa: "One of our Board members (from SANParks) was selected to be a member of the IPBES Multidisciplinary Expert Panel."
Community of practice: harness the combined expertise of different knowledge holders to jointly develop knowledge products	Colombia: "Most institutions on our National Committee have a dual natural science and social science focus."



Table 5.1 cont.

RELEVANCE	EXAMPLES OF USE OF STRATEGY BY INTERVIEWED NATIONAL BIODIVERSITY PLATFORMS
Integration: synthesise the best available knowledge and produce comprehensive and integrated knowledge products, in formats that are suitable for decision-making needs	Denmark: "We work with the best scientific expertise in our country to develop consensus briefs. We expect these papers to have a political impact because they are based on the broad scientific community giving a uniform statement to the public and decision-makers. You cannot pick one scientist saying the thing you want to hear and going in that direction; now you have 50 scientists reaching the same conclusions and this is the crucial point for moving the biodiversity agenda forward." Mexico: "An average of about 250 experts in different areas of knowledge, including social issues, biodiversity, physical context, among others, participate in the development of each (subnational) State Biodiversity Study."
Fit for purpose: provide timely and applicable knowledge inputs to decision-making processes	Brazil: "The fact that BPBES is neither a governmental body, nor an NGO, nor a private company, allows for mobility, reduced bureaucracy and rapid action." ^[14] France: "The NBP is not an ad-hoc structure but is hosted by a boundary institution (French Foundation for Biodiversity Research) working at the science-policy interface and this is the key to its efficiency on IPBES issues." Mexico: "All national and state biodiversity strategies include a diagnosis based on biodiversity studies. CONABIO supports sub- national authorities to develop their strategies based on their own particular needs." Switzerland: "We hosted an 'investing in biodiversity' conference with experts from the financial sector. This sector is only now becoming aware of including biodiversity within their 'sustainable finance' portfolio." Mexico: "The Mexican Alliance for Biodiversity and Business was created by civil society and private sector as a permanent mechanism for intersectoral dialogue to address issues related to the conservation, sustainable use and restoration of Mexico's biodiversity with a business perspective."
Solutions: develop approaches and tools to aid in problem-solving and decision-making	Colombia: "Most institutions on our National Committee have a dual natural science and social science focus."

Table 5.1 cont.

LEGITIMACY	EXAMPLES OF USE OF STRATEGY BY INTERVIEWED NATIONAL BIODIVERSITY PLATFORMS
Representation: include diverse knowledge systems, disciplines, genders and geographical regions in institutional structures and processes	Brazil: "An NBP cannot simply be a group of scientist friends, but instead needs representation of scientists from different regions, genders and expertise. There is a lot of jealousy amongst science institutions across the regions and states in Brazil. To manage this, we chose to first engage with a national umbrella organisation working with all disciplines and states of Brazil, the Brazilian Society for the Progress of Science, and facilitate work with other boundary organisations, in order to build high representation and legitimacy from various parts of the country." Switzerland: "We are hosted by the Swiss Academy of Sciences, which is an overarching and independent national level institution. Not being linked to a specific university increases credibility and legitimacy, because the NBP's work and policy positions are not considered to be a public relations machine for any specific institution." Mexico: "For the elaboration of the ENBIOMEX [National Biodiversity Strategy of Mexico], consultations and specialised workshops were held to include the gender perspective and reinforce the participation of the IPLCs in its implementation."
Recognition: obtain a mandate or an institutionalised role in governance mechanisms	Cameroon: "A clearly defined indicator within the NBSAP II policy document to achieve Target 2 (on scientific information), is to establish 'an operational National Platform for Science-Policy on Biodiversity and Ecosystem Services (SPBES)'. It was based on this clear mandate that the platform was established by a decision of the Minister of Environment, Protection of Nature and Sustainable Development in 2017." West African Regional Biodiversity and Ecosystem Services Platform – WABES: "We are working directly with the IPBES National Focal Points who are mandated by the national governments."
Participation: include stakeholders and knowledge holders in co-designing NBP objectives, activities and outputs	Brazil: "The fact that, unlike intergovernmental assessments, government has no veto power over our reports and this is also supportive of the legitimacy goal. All stakeholders are given equal weight in the process, government included." ^[14] Brazil: "Participation is from the stage of co-developing the research questions – we changed the way we worked to achieve co-production of results."

5.3 Managing Resources

Ideally, an NBP builds and manages its resource base such that it can meet its core objectives and supporting activities, while also remaining flexible to respond to emerging needs at the science-policy-practice interface, unexpected events and windows of opportunities. The resource base consists of the suite of in-house funding, in-kind contributions, skills, expertise and relationships – and also the ability of the NBP to draw on its network to access these.

5.3.1 Funding / Financial Management

Experience shows that it helps to leverage diverse sources of funding to secure resources (financial and in-kind) for start-up and long-term sustainability. The following quotes provide examples of a multiplicity of strategies used by interviewed NBPs to develop, manage and extend their resource base.

Belgium: "The budget has remained the same for the past 15 years. Initially we had less staff, with a higher amount of resources. Now we have more staff and some staff have worked for a long time with the NBP, therefore their salaries have increased. So, we have been pushed to be more engaged in external projects, which come with funding, and which are aligned with our work."

Brazil: "BPBES is mostly sponsored by governmental agencies that fund research (85 % of budget), with the main costs related to the National BES Assessment. Each core team member had one full-time postdoc and technical students to support them with specific jobs. This can also be considered a capacity-building activity, since they learnt how to conduct an assessment and gained experience in science communication and international arenas of negotiation."

Brazil: "Communication and outreach was another key piece in BPBES design and strategy to allow for long-term funding purposes." ^[14]

Brazil: "We are currently fundraising by engagement with the embassies of countries that usually support environmental activities, e.g., Germany, Norway, etc."

Denmark: "We have discussed Requests for Proposals as a source of funding, but we are not working as a consultancy agency. There is a grey zone, in which we are willing to undertake project-related funding, but only if the task is quite science-based and stays aligned with our scientific credibility."

Mexico: "Some 60–70 % of CONABIO's budget comes from federal funds; the remainder originates from external sources, some of which are of international origin. All funds are deposited in a private trust, an arrangement that has played a fundamental role along the years in the performance of the Commission by enabling a smooth, efficient and transparent use of the resources available to it."^[8]

Resource contributions to NBPs can vary in terms of type, quantity, and reliability. Therefore, combining different sources helps NBPs to ensure continuity and establishing strategic coalitions can help to access funding sources not individually accessible (see <u>Table 5.2</u>). Ideally, the mix of resources is managed in a way that they complement and amplify each other. While this approach lends well to establishing a stable resource base, increasing the amount and diversity of funding sources increases the administrative budget required for fundraising (e.g., writing funding proposals), financial management and monitoring, evaluation and reporting. Sound financial and programme/ project management increases opportunities for accessing further funding.

Table 5.2: Options to acquire resources for national biodiversity platforms

SOURCE	EXAMPLES OF RESOURCES PROVIDED
Academia and research institutions	 Designated project or programme funding In-kind contribution of capital (e.g., office, equipment) In-kind contribution of communications and media relations expertise Support for research and academic staff to participate in national and international policy processes
Development and international cooperation	 Designated funding for projects and NEAs (e.g. IKI, AFD, AECID, JICA, BioBridge, GEF, WB, IUCN, GCF) Organisational start-up and pilot project funding
Foundations	 Funding for capacity-building activities (e.g., stipends for young researchers to participate in NEAs) Designated project funding
Government	 Core funding for operations Support for national experts to participate in delegations of international policy processes Secondment of expert staff from other departments Scholarships/grants for early career researchers (postdocs, graduate students) aiming to work at the science-policy-practice interface (capacity-building)
Host institutions of the NBP	 Financing or in-kind contribution of salary for NBP core team In-kind contribution of capital (e.g., office, equipment) In-kind contribution of communications and media relations expertise
Funding calls	 Designated project funding Support for capacity-building activities
Science-policy- practice processes	 In-kind contribution of communications and publicity support Support for capacity-building activities

Table 5.2 cont.

SOURCE	EXAMPLES OF RESOURCES PROVIDED
Intergovernmental organisations	 Organisational start-up and pilot project funding Funding for scientific assessments Funding for stakeholder engagement activities
Partnerships	 Designated project or programme funding Support for experts to participate in national and international policy processes Support for capacity-building activities (e.g., training workshops)
Private individuals	Discretionary funding to act on windows of opportunities
Private sector	 Funding for commissioned projects Sponsorship of events (meetings, workshops, conferences)
NGOs	 Designated project or programme funding Sponsorship of events (meetings, workshops, conferences) Support for participation of experts in policy processes

5.3.2 Human Resources and Talent Management

The competencies of the core team of an NBP should be diverse enough to enable effective execution of strategies and activities. Aim for working in transdisciplinary teams with expertise in natural sciences, social sciences, indigenous and local knowledge, humanities (e.g., policy, law) and practice. It helps if the core team of the NBP has working knowledge in all of these areas; strong connections to networks are useful to leverage additional expertise.

France: "The technical expertise of the staff of the NBP, relating to IPBES policy processes, is its main strength for providing effective support to the national delegation in preparation of the plenary, along with its access to a wide network of experts to prepare technical and scientific discussions."

Switzerland: "Tap into already existing networks on biodiversity and science-policy interfaces in general: this saves a lot of work in building a network of experts and knowledge and action."

Furthermore, communications expertise, for example, language translation services, moderation/facilitation, science communication, social media management and graphic design, is also important. These skills are needed to improve stakeholder access to knowledge on and understanding of biodiversity and ecosystem services issues.

Belgium: "You need different types of skills within a platform – those suited for desk work and those suited for engaging others. Our NBP was lucky to have a staff member extremely experienced and skilled in facilitation who trained others within our NBP. Though this person no longer works at the NBP, the knowledge is still with us. Good facilitation skills also increased the value of the NBP in the national context: we were asked by stakeholders to provide facilitation services at other events."

NBP teams that are motivated and perseverant, flexible and resourceful, self-reflected and willing to learn are in a very good position to master the challenges at the sciencepolicy-practise interface.

Belgium: "We are able to work flexibly because we have a high level of commitment, enthusiasm and engagement from our staff."

Brazil: "The assessment process is lengthy and intense, therefore researchers involved must be very interested in governance work and must see that there is an important contribution to be made to this area, otherwise it will be difficult to keep motivated to get good results from the process."

As stakeholder engagement is a major strategic activity of an NBP, it is very helpful if the core team has the knowledge, skills and cultural sensitivities to facilitate interactions between stakeholders across different sectors of society, which lead to a transformation of decision-making processes. ^[19] Science-policy interfacing requires similar competencies needed for change management processes (see <u>Figure 5.2</u>). If you do not have these competencies or skills in-house, involve experts and good facilitators from your networks or contract professionals for particularly important and sensitive processes or events.

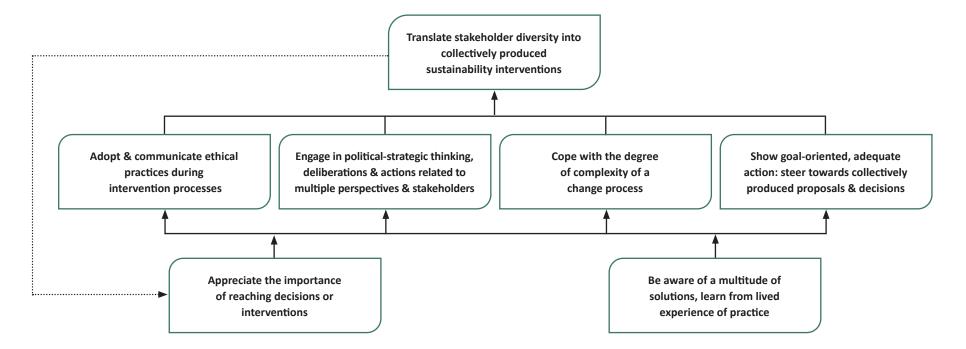


Figure 5.2: Competencies required for devising solutions that support change processes towards sustainability. A relational model, showing the dimensions of intervention competence for sustainability. The relations between the dimensions are depicted by lines and influences by arrows. The dotted arrow illustrates a cyclical process, thereby improving the level of performance.^[20]

Key message: An NBP benefits from a structured work plan, adapting to new developments, active management of credibility, legitimacy and relevance and continuous stakeholder engagement.

6.1 Designing Institutional Structure and Governance

The management of an NBP focuses on building its credibility, relevance, legitimacy (see <u>Chapter 3</u>, <u>Chapter 5 – Section 5.1</u> and <u>Table 5.1</u>) and sustainability over the long term. This chapter presents core operational practices, as recommended by the NBPs consulted for this guidebook.

Develop a work plan prioritising activities according to relevance, mandate and resources An annual work plan usually contains a list and timeline of activities and outputs linked to the strategic plan (see <u>Figure 4.3</u>). The work plan should be re-visited regularly (e.g., every 6 months) to ensure that activities and outputs are focused on those which are:

- relevant to the current science-policy-practice landscape (i.e., the decision-making needs of the stakeholders and knowledge holders which the NBP is engaged with);
- most important to fulfil the official mandate of the NBP. Make the most strategic use of available resources to meet the NBP's objectives.

Build on your collaborations

Managing collaborations with stakeholders and knowledge holders may be the most important aspect of day-to-day coordination, as the quality of such relationships significantly determines the impact and continuity of an NBP. Collaborations may take place, for example, with knowledge holders (e.g., scientific researchers, indigenous and local knowledge holders), practitioners (i.e., private sector, NGOs, rightholders), decision-makers (e.g., local government administrators, corporations, managers of biodiversity assets such as protected area managers and farmers), other science-policy-practice platforms (e.g., other NBPs, regional platforms addressing topics of biodiversity or climate change), and civil society organisations (e.g., religious networks interested in environmental issues, citizen science groups), and across international processes (e.g., National Focal Points for Multilateral Environmental Agreements (MEAs)), etc.

It is important for an NBP to maintain regular interaction with stakeholders and knowledge holders throughout the lifetime of a collaborative initiative, to:

- Build trust and a common understanding of the purpose and nature of the collaboration;
- Reduce duplication of efforts and build synergies by dove-tailing activities (e.g., joint workshops, coordinated communication campaigns);
- Maximise resources by sharing knowledge, funding (e.g., consortium of organisations managing an initiative under the same funding programme), and infrastructure (e.g., databases, office space, equipment);
- Continuously identify windows of opportunity to inform decision-making and understand who is best positioned to move information and/or demands forward.
- Promote constructive dialogue across knowledge systems.

Belgium: "The IPCC National Focal Point is one person based in the Belgium Science Policy Office not connected to the NBP in a strict sense, but we closely collaborate. We have regular interactions, for example, reviewing parts of IPCC reports related to biodiversity and supporting collaborations between IPBES and IPCC. And it is also a very personal interaction between two people that know each other and bump into each other at the coffee machine. If there is a development, we have the reflection to consult each other."

Respond to new developments within the science-policy-practice landscape

To keep an NBP relevant in responding to societal needs, there should be continuous awareness of evolving national circumstances, which is broadly known as "horizon scanning". It is the proactive observation of major changes within the science-policy-practice landscape which may affect the work of the NBP, including its credibility, relevance, legitimacy and sustainability. A horizon scanning exercise essentially involves a rapid assessment of the considerations for defining the NBP's objectives and mandate, which were addressed in <u>Chapter 4 – Section 4.2</u>, and is an example of why the management of an NBP is an iterative process. As a summary, horizon scanning would consider:

- What are emerging knowledge needs (e.g., new issues for which there is a knowledge gap)?
- What are emerging or receding policy processes (e.g., new opportunities to participate in policy design and implementation)?
- What are emerging or receding topics of national priority (e.g., new issues being raised in the decision-making arena)?
- Which stakeholder interactions are evolving (e.g., new stakeholders needing decision-making support, new science-policy-practice interfaces)?

Belgium: "Many policy support activities, including the communities of practice, were initiated around emerging issues that we thought would be important, and these issues have now become mainstream in the international policy context."

South Africa: "Unforeseen impacts such as the pandemic and its subsequent socio-economic impacts have resulted in a reprioritisation of functions. This means aligning the science-policy interface to immediate national priorities. In South Africa, this includes enhancing the Biodiversity Economy, promoting the sustainable use of local biodiversity and ecosystem services and its equitable benefit sharing in a transformative manner [...] as the economy would need to be stimulated post COVID-19."

Horizon scanning can be conducted bi-annually, annually or as part of an NBP's process of developing a new strategic plan (e.g., every 3–5 years). It can take the perspective of what is emerging on the science-policy-practice horizon over the next year, over the next two years, or over the next five years, and so on. More insightful results could be achieved by involving a diverse group of people working in different relevant sectors. Based on the outcomes of this exercise, an NBP may decide to revisit and adjust its objectives, mandate (see <u>Chapter 4 – Section 4.2</u>), institutional structures (see <u>Chapter 5 – Section 5.1</u>), institutional processes (see <u>Chapter 5 – Section 5.2</u>) and outputs to meet the identified evolving circumstances (see also <u>Table 7.1</u> on possible challenges and solutions). However, it could also decide to maintain its current focus and mode of operating to, for example, firmly establish itself as a leader within a niche.

Mexico: "In 2006 and 2007, the senior staff of CONABIO conducted a prospective assessment of the information and intelligence requirements for decision-making that Mexico is likely to need in the fifteen or twenty years ahead, with respect to the knowledge, sustainable management and conservation of biodiversity. It became clear that the definition of future development had to be based on the experience, information gathered and methodologies built over the twenty years of activity of the Commission. Based on these elements, it was possible to establish the priority areas on which most of the human and financial resources should be focused (without neglecting the other subjects worked on by CONABIO)."^[8]

Leave space in your work plan to respond to ad hoc windows of opportunity

While horizon scanning helps an NBP respond to substantial and long-term changes in the national context (e.g., change in policy direction), an NBP also needs to be nimble enough to respond to impromptu time-sensitive opportunities to achieve its objectives. For example, an NBP may receive an unexpected invitation to comment on a new policy proposed in national policy debate. While it may not be within an NBP's current work programme to participate directly in this particular topical policy process, it helps to be flexible and reflect on whether using this opportunity may help accomplish its objectives more effectively or efficiently. France: "Most of this work is demand-driven so there is no specific activity or output listed on our side. We are a small team that can easily be mobilised to answer short-notice queries, either by preparing an intervention at an event or drafting notes and memos."

Belgium: "We are quite free in our work plan, which allows us to engage in activities that at first sight may look risky or irrelevant. But because we have the flexibility to explore, we are able to see connections."

However, if acting on a window of opportunity may lead to adding a large new activity (e.g., an NEA) to the portfolio, consider how this affects ongoing activities and the impact of the increased workload on staff. Often there is an underestimation of resources and efforts needed for new endeavours. Some strategies to address this are to bring in additional staff for time-bound activities, contract out certain work or look for synergies in activities and tasks with ongoing work.

Colombia: "Maybe it would be easier to designate financial resources to hire a group of consultants to work together with the experts and to consolidate the information. Many of the ad honorem experts didn't have enough time to write [the NEA]. The issue is not necessarily the voluntary basis of the work, but it is the time needed to finalise chapters. Here, the 20–30 % time requirement becomes 40–50 %."

As another example of managing flexibly, in the case of budget constraints, an NBP can re-prioritise and reduce activities within its portfolio, to focus on topical issues and core national priorities. South Africa: "In times of economic crises and severe austerity measures, the research function is the first to be cut. Hence, the science-policy interface would need to reinvent itself such that it finds relevance for the most urgent and pressing issues addressing the immediate national priorities [...]"

Continuously manage your credibility, relevance and legitimacy

An NBP's credibility, relevance and legitimacy are not static and require continuous management throughout an NBP's lifetime. Strategies for establishing credibility, relevance and legitimacy at the start of the NBP might be different from those needed throughout the operation of an NBP. A different strategic orientation towards credibility, relevance and legitimacy may be needed because of changes in the science-policy-practice landscape (e.g., entrance of a new interface which commands more influence, new topical issues outside of the expertise of the NBP, unskilful management of a stakeholder engagement process). Thus, an NBP needs to continuously reflect on its influence in the landscape and adapt its strategies accordingly (see <u>Chapter 3</u> and <u>Table 5.1</u>). <u>Table 6.1</u> provides examples of how synergies and trade-offs in these attributes are managed. For example, a diligent application of a peer review process for research may build credibility but may lose relevance if the eventual knowledge products arrive too late to inform a topical policy issue. These are the types of strategic decisions which must be managed as issues arise.

EFFORTS TO INCREASE ONE	AFFECT ANOTHER ATTRIBUTE		
ATTRIBUTE	CREDIBILITY	RELEVANCE	LEGITIMACY
CREDIBILITY		 ↑ by including different knowledge holders who ask different questions, activities and outputs target a broader range of issues relevant for decision-making ↓ by isolating the knowledge production process from decision-making input, outputs might not meet decision-making needs ↓ by missing deadlines to provide input into decision-making because of lengthy peer review processes 	 ↑ by increasing the inclusiveness of expertise (e.g., Indigenous Peoples and local communities), activities and outputs gain a more expanded "social license" ↓ by limiting participation to only those with specific credentials in one knowledge system, other knowledge holders and systems could be excluded
RELEVANCE	↑ by being "ahead of the curve" in knowledge on emerging issues		↑ when including stakeholders with topical knowledge, activities and outputs are more likely to be used
LEGITIMACY	 ↑ by including different knowledge systems and disciplines (e.g., indigenous and local knowledge) which help bringing different perspectives into the knowledge base ↓ by knowledge production processes which are not strictly shaped by, for example, scientific standards, but also bring in knowledge users' needs and perspectives in the research design 	 ↑ by including stakeholders in the co-design of activities which are useful for their needs ↓ by changing the focus of the knowledge products to meet needs beyond the originally defined users ↓ by complex stakeholder engagement processes which may require more time than available to meet deadlines for decision-making processes 	

 Table 6.1: Synergies and trade-offs among credibility, relevance and legitimacy (adapted from Cash et al. 2002)

6.2 Stakeholder Engagement

Stakeholder engagement is a core activity of an NBP. This is reiterated by the usefulness of conducting a stakeholder mapping exercise to inform the development of an NBP's objectives and institutional design (see <u>Chapter 4 – Section 4.1</u>). New and existing relationships need to be continuously and skilfully built, with an ethical approach of meaningful engagement in decision-making processes. It is also important for NBPs to have credible and legitimate approaches for involving stakeholders and knowledge holders in their institutional structures (e.g., advisory board), processes (e.g., review of knowledge products) and activities (e.g., consultations to support policy processes). Short-term and long-term activities for engagement could aim at:

- Designing and implementing an initiative together (e.g., producing a policy brief, conducting a scientific assessment, developing a database);
- Building the capacity of stakeholders and knowledge holders to engage at the science-policy-practice interface (e.g., training workshops for researchers on science communication; training researchers to understand Indigenous Peoples and local communities' protocols, cultural norms, and institutional structures; or, training indigenous and local knowledge holders about participatory community methods such as participatory 3-D modelling, building the capacity of the NBP to engage at the science-policy-practice interface, for example, establishing communities of practice which can provide guidance on emerging issues or establish an indigenous and local knowledge working group);
- Sharing data, expertise, resources and access to decision-making forums.

Mexico: "In 2008, the media office was established in CONABIO with the aim of establishing a direct and constant relationship with television, radio and the press in order to generate more and better opportunities to broadcast the knowledge of the natural wealth of Mexico." ^[8]

Mexico: "CONABIO created an online Forum (Foro IPBES México) as a virtual space for national experts to discuss IPBES processes that they are involved in. More recently, representatives of academia, IPLCs, government agencies, civil society and youth representatives (Global Youth Biodiversity Network, Mexico), have now also joined the Forum." South Africa: "We host an annual national science-policy meeting inviting representatives from the provinces, local municipalities, local communities, NGOs and the private sector to participate [...] provincial authorities are also encouraged to host provincial science-policy meetings and set up research and evidence strategies on their own."

Switzerland: "We reach out to stakeholders with different worldviews. The churches have their own network working on climate change, therefore we proactively approached them on biodiversity issues and they were open for engagement. We write articles for each other in our magazines and maybe a workshop will be organised."

Switzerland: "We use a variety of strategies to access local knowledge, e.g., grey literature, unpublished theses, conservation magazines, etc. made publicly available in our archive (Information Service for Biodiversity in Switzerland). We also put out calls for research questions and answers on practical nature conservation knowledge (Marketplace for Research Questions from Nature Conservation Practice)."

When designing specialised engagement strategies for each type of stakeholder, it helps to keep in mind the benefits they can gain from such engagement (as summarised in Figure 2.2). The United Nations Educational, Scientific and Cultural Organisation (UNESCO) through its local and indigenous knowledge systems programme also provides specific guidance for working with indigenous and local knowledge and engaging with Indigenous Peoples and local communities (see <u>Box 6.1</u> and <u>Table 8.1</u>), including in ecosystem assessments at both global (Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)) and national (Biodiversity and Ecosystem Services Network (BES-Net) and National Ecosystem Assessment (NEA) Initiative) levels. National biodiversity platforms (NBPs) have found iterative engagement particularly useful as it helps to build trust.

Belgium: "The networking and connections are very important to actually bring people to our activities. It could be that my colleagues and I ask others 'are you interested, can you come over to discuss these topics' and they would come because they know us and think that it could be relevant." Brazil: "We were expecting a higher interest in our work from private and governmental sectors. We think this is because the national ecosystem assessment remained too much in the scientific world; we had a lot of meetings at the beginning, but during the development of the work, we didn't maintain dialogue. We will now adjust our process in our second work plan by having stakeholders involved throughout the entire process, for example, by sending participating stakeholders a copy of the end products and soliciting their impressions and evaluations of how their contributions were used, the process and the results."

France: "When we had negative feedback on how agriculture was presented within the first draft of the summary for policy-makers of the IPBES Global Assessment, we asked the agriculture community to provide comments on other ways of establishing the view of how agriculture and biodiversity interact and we submitted this as part of the external review process [...] this helped us build the position of the French delegation for approval of the summary for policy-makers. So that is why our work with the stakeholders is actually appreciated, because it is a way to provide alternative views."

Co-design projects, co-produce knowledge, and build capacity of stakeholders and knowledge holders to engage with each other. This approach (see Figure 6.1) is widely recognised to improve:

- Building of trust through respectful dialogue that facilitates a greater understanding of perspectives, needs and constraints;
- Capacity-building on how to better address concerns on biodiversity and ecosystem services, e.g., through learning about other knowledge systems and practice using a wider range of communication skills;
- Receptiveness towards including biodiversity considerations within decisionmaking, since there is ownership of co-produced knowledge products and confidence in its credibility and legitimacy.

Ensure capacity to translate knowledge into understandable language and usable forms for different stakeholders. Common barriers to understanding biodiversity issues and the use of knowledge by various stakeholders to make more informed decisions are:

- Complex and inconsistent terminology;
- Unavailability of information in the local language;
- Overwhelming amount of information;
- Overwhelming complexity of issues.

Therefore, an NBP may play a critical role in translating knowledge into formats that meet the needs of stakeholders. For example, an NBP may be asked by a private sector stakeholder to extract actionable business-relevant points from reports of international policy processes.

Brazil: "Stakeholders appreciated our focus on 'opportunities' – positive framings of how to move forward with solutions, rather than presenting usual arguments of problems."

France: "Stakeholders request extraction of specific information from IPBES findings which is relevant to their business activities (e.g., for their internal overarching strategies and policies on environment and biodiversity). For example, when the IPBES methodological assessment on scenarios and models took place, the luxury goods company LVMH Moët Hennessy Louis Vuitton wanted to understand how to use scenarios on biodiversity and climate change interactions to determine implications on their business activities (e.g., production of wine)."

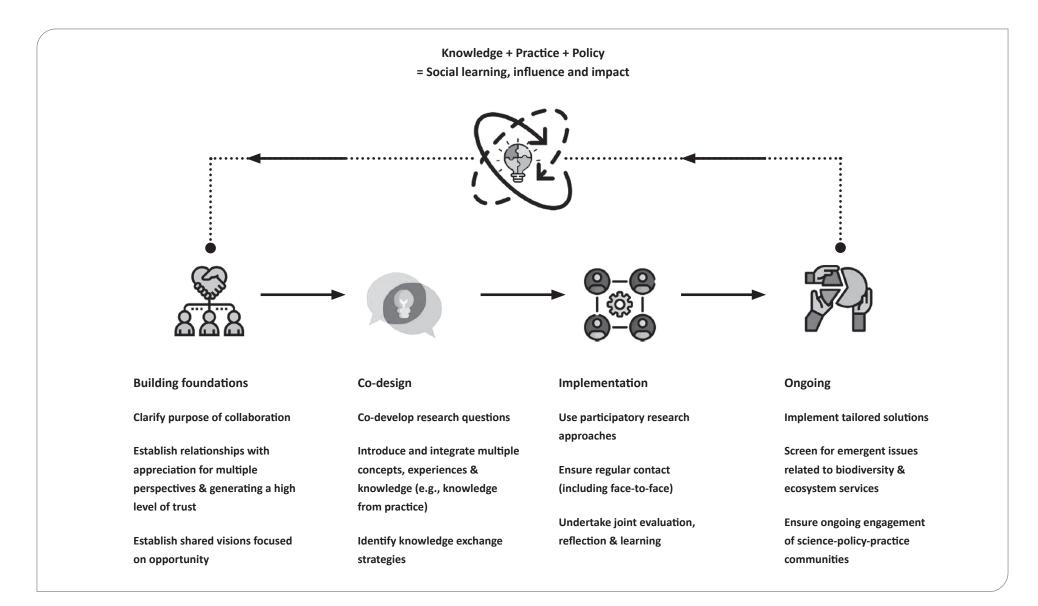


Figure 6.1: Collaboration for enabling social learning, influence and impact at the science-policy-practice interface. Key principles underpinning success across science-policy-practice: building strong relations, co-design and implementation of processes and products and ongoing engagements that scan for new opportunities. Based on Cvitanovic and Hobday (2018) Building Optimism at the Environmental Science-Policy-Practice Interface through the Study of Bright Spots; ^[20] and Ison, Collins and Iaquinto (2021) Designing an Inquiry-Based Learning System: Innovating in Research Praxis to Transform Science-Policy-Practice Relations for Sustainable Development. ^[21]

Box 6.1: Engagement with Indigenous Peoples and local communities. Based on UNDG (2009) Guidelines on Indigenous Peoples' Issues. [22]

Indigenous Peoples and local communities are widely recognised as important knowledge holders and actors in the management of biodiversity and ecosystem services, based on the often intricate link of their livelihoods to natural resources and their detailed knowledge of biodiversity and ecosystem services.

They are also recognised to require **proactive and specialised engagement processes** which respectfully and meaningfully accommodate their particular knowledge systems and internal community decision-making processes. An NBP should not assume that Indigenous Peoples and local communities will be automatically engaged through other stakeholder activities. Therefore, the design and execution of engagement processes should ideally be informed or led by members of Indigenous Peoples and local communities or else by qualified experts (e.g., anthropologists, sociologists, etc.).

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) has suggested and/ or (co-)developed principles and an extensive suite of resources which can inform your engagement with Indigenous Peoples and local communities, such as <u>Practical Guidelines for Working with</u> <u>Indigenous and Local Knowledge in national ecosystem assessments.</u>

The prevailing criteria for determining which groups are considered Indigenous Peoples is that they **self-identify** as such. Local communities can be understood as communities that are **not self-identified or specified under national legal frameworks as Indigenous Peoples but are recognised to having historical ties** to places and natural resources, multiple domains of ecological knowledge, dynamic natural resource management techniques and technologies, customary institutions to manage natural resources, and distinctive worldviews and relations to nature and landscapes. There are also legal definitions on Indigenous Peoples provided by the United Nations, regional governance bodies (e.g., The African Commission on Human and Peoples' Rights), and national and sub-national governance bodies. Such definitions include differentiation characteristics such as language, knowledge, history and livelihood strategies. The differentiation between Indigenous Peoples and local communities depends on the socio-political context, but both maintain social and cultural inter-generational connections to place and nature.

Some recommendations on how to design an engagement process for/with Indigenous Peoples and local communities include:

Use the Multiple Evidence Base Approach for engaging with indigenous and local knowledge. Tengö et al. (2014) ^[23] developed a framework which proposes how indigenous, local and scientific knowledge systems can be applied together to "generate new insights and innovations through complementarities" (page 579) without one system being subject to validation by another. This method has been recommended by UNESCO and has been officially approved by IPBES for use in assessments.

- Apply credible standards of engagement which reflect principles of justice, equity, diversity and inclusion (e.g., human rights-based approaches, equitable benefit-sharing mechanisms, Free Prior and Informed Consent (FPIC) procedures) and align your work with the United Nations Declaration on the Rights of Indigenous Peoples.
- Aim for transdisciplinary teams which can manage knowledge translation between science and indigenous and local knowledge systems, frame issues from different perspectives, incorporate case-studies, etc. Provide time for Indigenous Peoples and local communities to deliberate matters with their constituents, in a private space, and according to their internal cultural standards of credibility and legitimacy.
- Draw on multiple methods to comprehensively gather indigenous and local knowledge: indigenous and local knowledge dialogue workshop, walking workshop, participatory mapping (i.e. participatory 3-D modelling), indigenous driven ground research, academic indigenous and local knowledge experts contributions, peer-reviewed and grey literature, media reports, unpublished reports, videos, artwork produced by Indigenous Peoples and local communities, and intermediary community organisations.
- Aim for long-term relationship building through continuity in communications and by assigning relationship management to the same NBP staff member(s). Similarly, an NBP may need to work with a local champion or indigenous/local intermediary organisation(s) (e.g., Indigenous Peoples organisation working with Indigenous Peoples and local communities and the forest department to conserve biodiversity within an indigenous territory).
- Support Indigenous Peoples and local communities in conducting and managing their own research activities.
- Consider gender issues when planning engagement activities while acknowledging that sometimes environmental knowledge is held differently across gender.
- NBP staff should receive specialised training in engaging with Indigenous Peoples and local communities (e.g., active listening, indigenous cultural norms and communication protocols, appropriate ways to discuss differences in knowledge systems).

The following quotes illustrate how the interviewed NBPs engaged Indigenous Peoples and local communities and integrated their indigenous and local knowledge into their work and their learning lessons:

Brazil: "The Indigenous and Local Knowledge Assessment is an experiment in co-production of knowledge with Indigenous Peoples and local communities. The process requires more time because they have a different timing and way of working, especially in consultations with their constituencies and councils."

Brazil: "For the National BES Assessment, we engaged indigenous and local knowledge students. They were subsequently very dissatisfied with our approach to integrating indigenous and local knowledge; we realised the complexity of the issue and decided to conduct a separate assessment on indigenous and local knowledge."

Colombia: "Indigenous Peoples and local communities are not yet part of the core team or advisory board because neither they nor their NGOs have indicated desire for membership. They have said, 'We want to be independent and from our independence we can support all that you are doing; if we are on a committee we may not be as independent as we want to be'. So instead, they prefer to work close with their own committees, which helps them maintain credibility amongst their members. They have their own communication approach within their communities and associations."

Colombia: "In order to address the challenge to engage local communities, representatives of Indigenous, afro-descendant and rural communities were brought together at a National Trialogue [Peoples] event [...] to present their perspectives [in the NAE process] about environmental change and the role of their knowledge in the management and preservation of biodiversity and ecosystem services."

Colombia: "This is the first time that an NEA will have a chapter dedicated to indigenous and local knowledge, because we have a lot of Indigenous Peoples and local communities in Colombia. We are still experimenting with engagement methods: learning by doing [...] In the first stage, we only had engagement with those having indigenous and local knowledge experience, but not holders of indigenous and local knowledge themselves. We made a specific call for experts from Indigenous Peoples and local communities, and this call had different prerequisites for participation. For example, in the science discipline, a call for experts at the national level would require a university degree, publications, etc. However, a practitioner or indigenous and local knowledge holder maybe won't have these academic qualifications and therefore these prerequisites are not suitable for the call. Instead, their own community recognises them as experts. We received a number of CVs which were reviewed by indigenous and local knowledge experts and indigenous and local knowledge holders, who identified gaps in knowledge or representation, and then proposed their own colleagues from Indigenous Peoples and local communities to fill these."

Mexico: "CONABIO promotes the recognition of the values and the conservation of biocultural diversity in diverse uses (food and drinks, artisanal, medicine, ceremonial, etc.). We have supported different communities with information that can be of utility in terms of improving their production, the conservation of the resources they use and the intellectual protection of their products. We have also collaborated with the Ministry of Public Education to produce and distribute 500,000 posters of six groups of plants of ecological and cultural importance in indigenous education schools, translated into the indigenous Tenek, Mixtec, Tepehuano, Nahuatl, Mayan languages, among others (14 languages in total)."

Mexico: "A Mexican representative of Indigenous Peoples and local communities participated in IPBES-5, establishing an initial relationship with CONABIO (IPBES National Focal Point). They have promoted IPBES deliverables at the subnational/ local level, particularly in the implementation of biocultural protocols in Oaxaca, Mexico. Also, CONABIO has collaborated with the Chair of IPBES Values Assessment and the IPBES Technical Support Unit of Values, which has fostered the inclusion of multiple knowledge systems." Key message: Challenges are part of the process of managing an NBP. Monitoring, evaluation and constructive feedback support learning for overcoming challenges.

There are several good reasons why an NBP should establish a routine of tracking and evaluating its impact, outcomes, activities and outputs – which are elements of its strategic plan (see <u>Table 4.1</u> and <u>Figure 4.3</u>). Processes for Monitoring, Evaluation and Learning (MEL) help to:

- Anticipate, identify and manage existing and emerging short-term and long-term challenges;
- Assess efficiency in the use of resources and adjust budgets and work plans accordingly;
- Devise better strategic approaches to achieving impact at the science-policypractice interface;
- Improve fundraising success by demonstrating thorough strategic planning and execution.
- Demonstrate accountability and transparency, thereby building trust with stakeholders (e.g., funders, partners, members of the governance bodies), which could lead to improved access to resources, decision-making forums, etc.

Denmark: "Our core funding is renewed every three years based on satisfactory performance; current funding ends in 2022. It will be renewed if the host institutions are satisfied."

Finally, MEL helps to build "institutional memory" – a compilation of the history, culture and learning lessons of the NBP, which helps new staff or participants of the governance board understand the evolution and identity of the NBP, its challenges and its successes.

7.1 Monitoring and Evaluation

Monitoring is the process of collecting selected data on elements of an NBP's strategic plan – impact, outcomes, activities and outputs. Evaluation is the process of using the monitoring data to assess "what works" and "what does not work" in realising the intended outcomes and impact of the NBP's work within the national science-policypractice landscape. While monitoring is often an internal process conducted by the NBP team, evaluation can be conducted internally or externally, ideally, through an independent evaluation expert. Nevertheless, the two processes work together.

To make it a manageable process providing a high return on investment, monitoring should, at minimum, focus on the essential data about the execution and realisation of the strategic plan that is required for successive internal decision-making cycles. When more resources become available, monitoring may be expanded to other data elements which may be interesting to investigate.

Guiding principles for evaluation include that it is intentional with a clearly defined purpose, independent from the operational work, serving the needs of the users, participatory by involving stakeholders, and ethical by ensuring integrity (e.g., impartiality, transparency) of the process. ^[24]

7.1.1 Formative Evaluation

Tracking how well an NBP is executing its activities and if this needs to be adjusted is known as "formative evaluation". This may entail monitoring, for example, how many resources (e.g., staff time, funding, in-kind support, etc.) are used to complete which kind of activities and implementation challenges (e.g., whether the work plan is being accomplished according to deadlines). This information helps to answer the question: "Are we doing things right?" It helps to quickly identify roadblocks (in the short term) and this can inform subsequent rounds of planning to ensure the platform can strategically balance its resources and ambitions. This supports maintaining realism in planning, managing expectations of stakeholders and an NBP's governance body (e.g., funders, host institutions, etc.) and ultimately leads towards being perceived as reliable, competent and trustworthy (which are factors that help build credibility, relevance and legitimacy).

Brazil: "We conducted public relations activities around the National Assessment, Pollination and Water Assessments and monitored the presence within the media [...] We hired an enterprise to do 'clippings' – they define key words and monitor the type of media that the news appeared in and when it appeared, over a period of 15 days. They also calculated how much it would have cost if we paid for advertising and public relations services to reach that level of outreach at the national level, instead of doing these activities in-house; which was estimated at ca. USD 3M."

7.1.2 Summative Evaluation

To understand how well an NBP is achieving its goals at the science-policy-practice interface is known as "summative evaluation". This entails tracking, for example:

- Stakeholder feedback after participation in a knowledge production process (e.g., stakeholder reporting of an improved understanding and valuation of transdiciplinary approaches or improved understanding of socio-environmental issues);
- Engagement indices for social media (e.g., content and execution of social media posts which led to increased interest of targeted stakeholders);
- Policy developments (e.g., adoption of new decision-making tools proposed by the NBP).

This helps an NBP understand whether its strategies and activities had the effect that was intended (e.g., did a stakeholder change behaviour, at the individual or organisational level) ^[21] and also whether its work unexpectedly resulted in unintended effects (e.g., maladaptive policy developments which undermined enabling conditions for conservation projects). This information answers the question "Are we doing the right things?" and can then be used to determine which strategies and activities should be further pursued, adjusted for improved impact or dropped from the NBP's portfolio. Summative evaluation usually involves external expert reviews and should be conducted at strategic planning junctions (usually every 3–5 years). Again, this type of evaluation also helps to reflect on how to build credibility, relevance and legitimacy at the science-policy-practice interface through more effective interventions.

Belgium: "We have used approximately 15 indicators to track our work on knowledge brokerage, foresight and research framing, and open evidence in support of decision-making. We monitor our performance on each activity, on an annual basis, and then determine how to adapt. Every four years, we re-develop indicators based on the new strategic plan, or on whether there are better suited indicators."

7.2 Learning and Sharing Lessons

Reflecting on the results of evaluation exercises – what works and what needs to be improved – can enable learning within the NBP team and helps the NBP evolve as a science-policy-practice interface. Generating insights enables using "failures" as opportunities for informing adaptive management. ^[24]

Ideally, an evaluation expert facilitates reflection exercises (e.g., workshops, focus groups), guiding through questions such as:

- What happened?
- What repeatable, successful processes did we use?
- What definitely did not work?
- How could we ensure future projects go just as well, or even better?
- What could have gone better?
- What were the aspects that stopped you from delivering even more?
- What would your advice be to future project teams, based on your experiences?

Based on UNEP (2020) p. 33. [24]

Germany: "NeFo was a project hosted by two non-university research institutions (Helmholtz Centre for Environmental Research – UFZ and Museum of Natural History). Though they are large institutions, they are only two institutions and none of them is a university, therefore there has been an issue of representativeness from the university landscape." Sharing lessons learned can be done internally within the NBP (e.g., at annual strategic planning meetings) and through external exchanges with important stakeholders (e.g., donors, other science-policy-practice interfaces such as other NBPs). External exchange es help others benefit from your experience and improve the overall collective practice of science-policy-practice interfacing within the biodiversity domain. Learning lessons can be shared via annual reports, blogs on your website, academic articles, participating in research initiatives soliciting experiences of science-policy-practice interfaces, etc.

Belgium: "We no longer draft only an internal annual report; we now have an annual highlights report for audiences beyond the Steering Committee and a highlights brochure about 20 years of our work, which explains our evolution from initiatives which had biodiversity as a common denominator to more strategic activities."

Altogether, MEL can be more effective if it is supported by the leadership of the NBP, equipped with adequate resources (e.g., staff time), and embedded within a culture and practices that value continuous improvement. ^[25] This can include:

- Integrating reflection and learning into the day-to-day management of the NBP;
- Actively seeking internal and external feedback, e.g., from staff, trusted experts and stakeholders, on how to improve the work of the NBP;
- Exchanging lessons with peers in science-policy-practice processes in other fields (e.g., health, climate change, sustainable development, etc.) and in other countries.

7.3 Common Challenges and Possible Solutions

Challenges can occur in all steps of establishing and managing an NBP. Based on interviews with 18 NBPs and three regional biodiversity platform initiatives and the analysis by Matsumoto et al. (2020), ^[26] <u>Table 7.1</u> presents some challenges that are encountered

when working at the science-policy-practice interface. Given that each national context has its unique challenges, evaluation and learning facilitates adapting and developing adequate responses to changing (national) contexts.

 Table 7.1: Challenges and possible solutions for national biodiversity platforms. Based on interviews with 18 national biodiversity platforms and one regional biodiversity platform and

 Matsumoto et al. (2020) Mapping the Current Understanding of Biodiversity Science–Policy Interfaces. ^[26]

CHALLENGES	POSSIBLE SOLUTIONS
CHALLENGE: OPERATIC	DNS
Improving the inclusion of knowledge on biodiversity and ecosystem services in decision-making See <u>Chapter 4 – Section 4.1</u> , <u>Section 4.2</u> and <u>Table 4.1</u> ; see also <u>Chapter 6 –</u> <u>Section 6.1</u> and <u>Section 6.2</u>	Identify gaps in the science-policy-practice interface that the NBP can fill (e.g., connecting knowledge holders, synthesising and sharing knowledge, providing advisory services, etc.). Identify needs of stakeholders with an interest in collaborating on improving knowledge exchange between knowledge holders and decision-makers (see UNEP (2017) Strengthening the Science-Policy Interface: A Gap Analysis). ^[7] Engage decision-makers in identifying the decision-making needs (e.g., data, tools, advisory and coordination services) which the NBP can provide. Involve targeted stakeholders in the process of jointly developing objectives and activities of the NBP.
High level of complexity of decision-making processes See <u>Chapter 5 –</u> <u>Section 5.1</u> and <u>Section 5.2</u>	Establish transdisciplinary teams (involving, e.g., researchers, policy-makers, legal experts, practitioners from various sectors, etc.) as their different perspectives, knowledge and experiences can help navigate challenges. Develop collaborations with organisations that have skills and networks that are complementary to that of the NBP in order to share efforts in navigating the science-policy-practice landscape. Re-evaluate strategies to ensure they are directed to the appropriate scale of decision-making. Cameroon: <i>"With the decentralisation process, and the recent establishment and operationalisation of Regional Councils, there is need for regional [sub-national] platforms to support and sustain the work of the NBP."</i>

CHALLENGES	POSSIBLE SOLUTIONS
Bridging silos between decision-makers and knowledge holders See <u>Chapter 6 –</u> <u>Section 6.2</u> and <u>Figure 6.1</u>	 Provide spaces for networking on issues of common interest (e.g., workshops, conferences, online platforms) – focus on reviving face-to-face interactions to improve familiarity, build relationships and meet with those inaccessible through online channels. Belgium: "Personal interactions are key in the type of work we do. I see this quite strongly at the national level: we have very direct personal interactions with people, which advances the work on a day-to-day basis. It also helps when there are the more official gatherings: because you have had these personal interactions, things just go much quicker." Ensure that activities create an atmosphere of trust and mutual learning (e.g., by pacing engagement to allow sufficient time for stakeholders to build understandings of each other's views and reach agreements using legitimate approaches); if people enjoy activities and trust the process, they are more likely to participate over the long term. Develop a communication strategy that uses diverse engagement channels to be inclusive (e.g., newsletters, policy briefs, workshops, webinars) and can help bridge divides. Build the capacity of knowledge holders and decision-makers to understand the different processes, terminologies and world views in which each of them work and communicate and collaborate with each other. Ensure successful small pilot projects which demonstrate proof-of-concept of the value of interfacing, to motivate more participation.
Increasing involvement of relevant knowledge holders See <u>Chapter 5 –</u> <u>Section 5.1;</u> see also <u>Chapter 6 –</u> <u>Section 6.1</u> and <u>Section 6.2</u>	Develop creative targeted communication strategies, which explain the added value of the NBP to the different stakeholders' work and interest, in order to generate interest and incentivise participation (e.g., newspaper commentaries, public television and radio spots, etc.). Define goals and objectives that are of societal relevance. Ensure transparency, visibility and adequate acknowledgement of contributions from participants for creating trust and co-ownership as well as credibility of the product. Colombia: "The Humboldt Institute provides support for [its researchers to participate as experts of the national ecosystem assessment]: the General Director gave experts authorisation to participate in an assessment and experts also received a letter of support from the university, thereby making their involvement official." Switzerland: "At the end of the challenging scientific assessment process, 80 % indicated that they value the experience professionally and personally - it is rewarding to participate in an important biodiversity initiative at the forefront of the research agenda, gain more citations and visibility, and an expanded professional network." Avoid participation fatigue of stakeholders by jointly defining and agreeing on the process of involvement and the effort this entails. Switzerland: "Researchers are surprised and overwhelmed with the volume of work needed to review IPBES documents, and frustrated with lack of support (e.g., funding for assistance) from their institutions. We manage this by making experts aware of the time and resource demands before commitment, by providing duministrative assistance, relieving some of their regular duties)." Engage with umbrella organisations (e.g., associations, communities of practice, networks, etc.) to reach a larger and broader population. Brazil: "We work through a national scientific society and other boundary organisations. With this approach, it was much easier to contact other experts and improve participation, without being tied to government deci

CHALLENGES	POSSIBLE SOLUTIONS
Collecting and accessing a diverse range of data and knowledge	Establish a database of knowledge holders (e.g., individual experts, organisations) that can be contacted for providing data and knowledge. Establish data and knowledge sharing cooperation agreements with research organisations, public agencies, indigenous and local knowledge holders, civil society organisations, corporations, etc.
See <u>Chapter 6 –</u> <u>Section 6.1</u> and <u>Section 6.2</u>	Build coalitions for ensuring an open access to information on biodiversity and ecosystem services. If appropriate, create an open call for expertise on a particular topic to invite a broad representation of stakeholder views and expertise (ensure sufficient resources to manage the process and transparency in the selection and engagement of knowledge holders).

CHALLENGE: BALANCING CREDIBILITY, RELEVANCE AND LEGITIMACY

Ensuring societal relevance of activities and outputs (e.g., knowledge products)	Focus on current and emerging issues of national attention for which policy-makers need support in addressing. Co-design and co-produce activities and outputs with target audiences to ensure they meet user needs.
See <u>Chapter 4 –</u>	Highlight the relevance of biodiversity issues for different sectors of national importance (e.g., socio-economic impact of biodiversity loss to the tourism sector).
<u>Section 4.2,</u> <u>Chapter 5 – Table 5.1,</u> and <u>Chapter 6 –</u> <u>Table 6.1</u>	Highlight beneficiaries of biodiversity and ecosystem services and options for conservation and sustainable use.

CHALLENGES	POSSIBLE SOLUTIONS
Timely provision of consolidated and credible inputs for decision-making See <u>Chapter 4 –</u> <u>Section 4.2,</u> <u>Chapter 5 –</u> <u>Table 5.1</u> and <u>Chapter 6 –</u> <u>Table 6.1</u>	Continuously monitor policy processes and consult with decision-makers on what kind of information is needed, in what format, and at which point in time in decision-making processes. Establish a network and database of knowledge holders that can be readily contacted for advice and contributions on specific topics. Plan ahead to manage work to inform known (predictable, fixed) policy cycles. Switzerland: "One challenge is meeting policy-making deadlines. There is a different rhythm in the science process (slow: production of consolidated products representing positions), the academy's administrative process (slow: requires approval from Academy and Advisory Board and clearance of conflicts of interest of experts) and the policy arena (fast, often with a two week deadline). It's difficult to ensure high scientific quality with short times to turn around outputs. To manage this, the NBP works with the regular (known) rhythm of certain policy cycles: e.g., agriculture policy is revised every four years (with semi-annual smaller revisions), therefore we know to prepare in advance [and] to deliver inputs into this process." Establish internal mechanisms for ad-hoc responses to policy requests while still ensuring transparency and quality control. Switzerland: "We were once able to produce a policy brief on insects within two weeks for consideration in Parliament. Usually, the policy brief process takes several weeks, but in this instance, there was fast administrative approval (one hour after submission of request) from the President of the Academy of Sciences and science experts worked hard thereafter to ensure the brief was both high quality and met the deadline."
Striking an appropriate balance between scientific complexity and over-simplification See <u>Chapter 4 –</u> <u>Section 4.2</u> and <u>Chapter 6 –</u> <u>Table 6.1</u>	Communicate assumptions and uncertainties involved in scientific information, e.g., by differentiating according to the level of evidence (e.g., strong or weak evidence). Deliver products and advisory services that synthesise and translate available knowledge and highlight major trends (e.g., summaries for policy-makers), while still allowing for tracing the underlying evidence base (e.g., references to original work).

CHALLENGES	POSSIBLE SOLUTIONS
CHALLENGES Ensuring long-term sustainability See Chapter 5 – Section 5.3, Chapter 6 – Section 6.1 and Section 6.2; see also Chapter 7 – Section 7.1	POSSIBLE SOLUTIONS Re-prioritise activities if funding and other capacities are constrained. Mexico: "One of the lessons learned is - keep a manageable structure (do not grow too much)." South Africa: "The platform is funded by the national fiscus, however [] the operational budget is minimal and hence the platform is heavily dependent on internal donor funding and sponsorship." Build a team with skill sets that allow for acquiring new funding (e.g., project funding as part of NBP work) which can help to ensure more long-term employment of staff. If high staff turnover cannot be avoided, ensure institutional memory by monitoring and evaluation processes which document activities, outcomes and lessons learned. Secure a mandate which includes a strategic role not yet covered by other organisations within the science-policy-practice landscape (e.g., coordinating a network or process related to national and international commitments). Maintain a certain level of non-overlapping mutual dependency and complementary skill sets between the organisations involved. Build partnerships with stakeholders with whom you can share resources (expertise, funding, capital litems, etc.) Mexico: "Woold hosting biological collections. (It is expensive). Instead seek for free or low-cost alternatives (virtual or borrowed spaces with support from our partners in academia)." Build strong relationships with and secure mandates from stakeholders with an interest in maintaining the platform (e.g., science foundations or societies, National Focal Points of interational Ireation, nationing on related togics, ministires, etc.) Buradi strong
	credibility, relevance and legitimacy of the NBP.

8. TOOLKIT FOR ESTABLISHING AND MANAGING A NATIONAL BIODIVERSITY PLATFORM

8.1 Process of Establishing and Managing a National Biodiversity Platform

If you are browsing through this manual with only little time and you are searching for an overview, this chapter provides key points at a glance – which will help to find your starting point for further work. The framework presented was informed by the experiences of 18 national biodiversity platforms,¹ in addition to literature and expert knowledge on science-policy-practice interfaces. All elements are relevant for NBPs, but as each country is different, you have to customise the use of the framework to your national context. The accompanying checklist might help to identify the best starting point and to prioritise tasks. More information on the guiding principles of credibility, relevance and legitimacy important in all planning and decisions can be found in <u>Chapter 3</u> of this guidebook.

Establishing and managing a national biodiversity platform and its work structure is not a linear process. Figure 8.1 shows the dynamic of the different aspects of developing the platform and working with it. In all stages of the process, it is important to reflect on current developments in the science-policy-practice landscape, objectives, resources and ways of communicating. At all stages, documenting and discussing obstacles and solutions, failures and successes facilitates learning from these experiences.



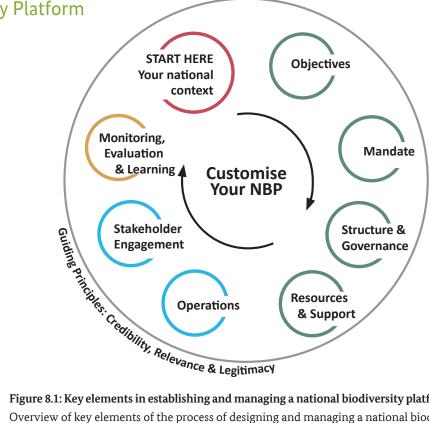


Figure 8.1: Key elements in establishing and managing a national biodiversity platform. Overview of key elements of the process of designing and managing a national biodiversity platform as described by interviewed NBPs, literature on science-policy-practice interfaces and experts. The framing circle shows the consideration of the guiding principles of credibility, relevance and legitimacy at all stages. These steps are not sequential and should be customised to your national context. The colours of the circles are reflected in the colour code of the chapters of this guidebook.

8.2 Key Messages, Checklist and Additional Resources

<u>Table 8.1</u> gives an overview of all elements of establishing and managing a national biodiversity platform as shown in <u>Figure 8.1</u>. For each element of the process, there are guiding questions which you can use as a checklist: Which aspects are relevant for you? What is a recent challenge in your work? Which further issues come to mind that you could deliberate with your stakeholder networks? In all steps, have a focus on balancing

credibility, relevance and legitimacy of your NBP (as indicated in the first shaded row). You will also be referred to the relevant chapters within this guidebook and specific resources beyond this guidebook to help you tackle each element. The "keywords" tool will help you to search for more information on a topic within the academic and grey literature, if you would like to dive deeper.

Table 8.1: Key messages, checklist and further resources to consult for establishing and managing a national biodiversity platform

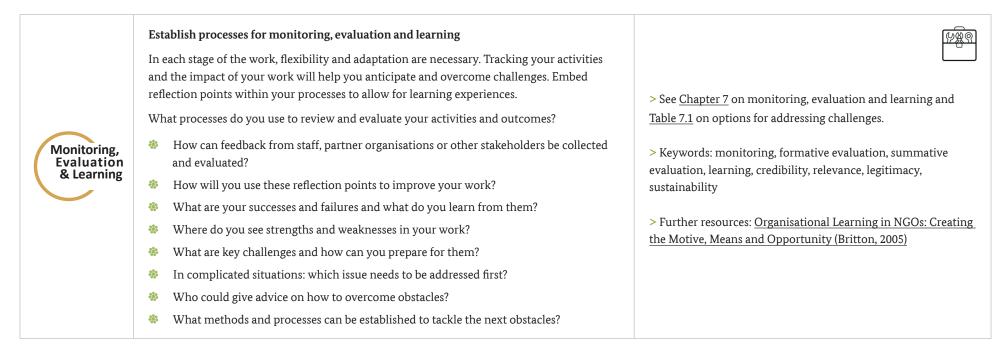
(Please note: The mentioned further resources are meant to provide inspiration but the authors do not take responsibility for the content provided in the external resources.)

GUIDING PRINCIPLES: CREDIBILITY, RELEVANCE AND LEGITIMACY	 Understand approaches for credibility, relevance and legitimacy Scope what counts as credible, relevant and legitimate within your national science-policy-practice context and devise strategies that build these qualities within your NBP's objectives and functions, institutional structures, institutional processes, activities and outputs. What influences (increases or decreases) credibility, relevance and legitimacy within the national science-policy-practice context? What aspects of credibility, relevance and legitimacy do the different stakeholders care about? What is the current perception of the credibility, relevance and legitimacy of the NBP amongst stakeholders and why? What strategies does the NBP need to improve its credibility, relevance and legitimacy? 	 > See <u>Chapter 3</u> on the guiding principles credibility, relevance and legitimacy; consult <u>Table 5.1</u> and <u>Table 6.1</u> for strategies on managing these attributes. > Keywords: science-policy interface, credibility, relevance, legitimacy, salience, CRELE > Further resources: <u>Effective interfaces between science, policy and society: the SPIRAL project handbook (Young et al., 2013).</u>
START HERE Your national context	 Scope your national context Discuss and identify the added value of a national biodiversity platform in your country and start with what is already there. What is your main motivation to establish an NBP? What networks and institutional structures are in place in your country? Would they be suitable to take on some tasks of an NBP? What knowledge needs are not being met? Who are potential initiators and supporters? Which stakeholders have high stakes or high impacts on biodiversity and ecosystem services? 	 > See <u>Chapter 2 - Section 2.2</u> for possible benefits of an NBP and consult <u>Chapter 3</u> on the guiding principles credibility, relevance and legitimacy. > Keywords: science-policy-practice interface, science-policy interface, ecosystem services, stakeholder mapping, national context, knowledge needs > Further resources: <u>Keep it CRELE: Credibility, Relevance and legitimacy for Science-Policy</u>

Objectives	 Define the objectives of your initiative Identify your goals and objectives by mapping your existing structures, ongoing policy processes, national priorities, stakeholders and needs in knowledge and communication. What are topics of national priority to which the NBP could make important contributions? Are there concrete policy processes in need of information on biodiversity and ecosystem services? Which topics have received too little attention in the existing science-policy-practice landscape? What structures, collaborations and projects do you want to strengthen and develop further? Which stakeholders could you engage? 	 > See <u>Chapter 4</u> and <u>Table 4.1</u> on possible objectives of an NBP. See also <u>Chapter 2 – Section 2.2</u> for possible benefits. > Keywords: multilateral environmental agreements (MEAs), national ecosystem assessments, knowledge-brokerage/-broker, communities of practice, policy processes, information needs, national context > Further resources: <u>Mainstreaming biodiversity and development: Tips & tasks from African experience (IIED & UNEP-WCMC, 2015)</u>
Mandate	 Obtain a mandate Identify which institutions or stakeholders can provide a mandate to your NBP. Determine what competencies the NBP needs to fulfil this mandate. What mandate does the NBP need to tackle the main objectives? Who could give the NBP a mandate for taking on specific roles? Who will/could support obtaining a mandate? 	 > See <u>Chapter 4 – Section 4.2</u> and <u>Chapter 5 – Section 5.1</u> on mandate and governance of the NBP. > Keywords: host institution, relevance, legitimacy > Further resources: <u>Strengthening the Science-Policy Interface:</u> <u>A gap analysis (UNEP, 2017)</u>
Structure & Governance	 Develop your institutional structure and governance processes Build a structure fit for your NBP's functions and to ensure credibility, relevance and legitimacy. Ensure adaptability to changing institutional landscapes. Implement lean but effective governance processes. How can you incorporate or link up to existing networks and institutional structures? Which stakeholders need to be involved in governance aspects of the NBP and what could be their roles? What kind of institutional arrangements are helpful to work on your biodiversity conservation objectives? What kind of decision-making processes will be suitable? 	 > See <u>Chapter 5, Figure 5.1</u> and <u>Table 5.1</u> on institutional structures and processes of an NBP. See also <u>Chapter 6</u> and <u>Table 6.1</u> on operation, stakeholder engagement and managing potential trade-offs in credibility, relevance and legitimacy. > Keywords: credibility, relevance, legitimacy, host institution, governance, stakeholder engagement, institutional structure > Further resources: <u>Developing a Strategic Plan &</u> Organisational Structure (Community Tool Box, 2021a)

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Resources & Support	 Manage your resources and support system Assess and cultivate your network, the strengths of your team, your stakeholders and potential sources of financial resources, and identify sources of support for different topics. What networks, actors and organisations have an interest in supporting the work of the NBP? What funding sources are available, if any? Who could be relevant partners for cooperation and joint application for funding from specific sources? Who could support you with in-kind contributions? Does your team have the skill set needed? 	 > See <u>Chapter 5 - Section 5.3</u>, <u>Chapter 6 - Section 6.2</u> on managing resources and strategic engagement with partners. > Keywords: facilitation, communications, funding, in-kind, human resources, financial resources, human resources, team > Further resources: <u>Stakeholder Analysis (ValuES, 2017)</u>
Operations	 Develop your work plan Key aspects for the coordination of your activities are strong collaborations, prioritisation, regular horizon scanning, flexibility and monitoring and evaluating your activities and outcomes. What strategies are suitable to achieve your objectives? What activities are needed to implement your strategies? What are needs of upcoming decision-making processes? How can you stay responsive to new opportunities? 	 > See <u>Chapter 4</u> with Figure 4.3 on strategic planning and <u>Table 4.1</u> on possible objectives and strategies. See also <u>Chapter 6 – Section 6.1</u> and <u>Section 6.2</u> on operations and stakeholder engagement and <u>Chapter 7</u> on monitoring and evaluation. > Further resources: <u>Developing Strategic and Action Plans (Community Tool Box, 2021b)</u>
Stakeholder Engagement	 Design your stakeholder engagement Implement suitable and transparent structures for a strong stakeholder involvement and cooperation to strengthen and legitimise your activities. Who are knowledge holders and decision-makers the NBP should engage with? What do you want to learn from the different groups? Where do you want to build stronger connections? What are the opportunities for engaging, co-operating, co-designing, and co-managing? What specific vulnerabilities, social structures, and cultural sensitivities should be considered and carefully managed? What additional capacities does your team need for this? How can you best include Indigenous Peoples and local communities and holders of other knowledge systems? 	 > See Figure 2.2 and Figure 4.2 for identifying benefits of an NBP for stakeholders and <u>Chapter 6 - Section 6.2</u> with Figure 6.1 on strategic stakeholder engagement. > Keywords: biocultural diversity, co-design, co-production, transdisciplinary, Indigenous Peoples and local communities, indigenous and local knowledge, Free Prior and Informed Con- sent, rights-based approach, justice, equity, diversity, inclusion, multiple knowledge systems, Multiple Evidence Base Approach > Further resources: <u>Working with indigenous, local and scientific knowledge (Hill et al., 2020)</u>





Glossary

TERM	DEFINITION
Advisory board	In the context of a national biodiversity platform (NBP), it is an organisational body consisting of representatives of institutions and individuals with knowledge and experience of relevance for the work of the NBP, providing strategic, non-binding advice to the NBP management. To stress broad representation it is also called "Stakeholder Advisory Board". See <u>Chapter 5 – Section 5.1</u> of this guidebook.
Biocultural diversity	The diversity that is not only made up by biological diversity (species, ecosystems, genetic resources) but includes the diversity of human cultures and languages. Biological and cultural diversity are interrelated and (possibly co-evolved). Reference: Maffi, L. (2007). Biocultural Diversity and Sustainability, in Pretty, J. et al. (eds.). The SAGE Handbook of Environment and Society. p. 269. ISBN 9781446250082.
Biodiversity	"'Biological diversity' means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems." Reference: Convention on Biological Diversity (2006). Article 2: Use of Terms. <u>www.cbd.int/convention/articles/?a=cbd-02</u>
Co-design	In the context of national biodiversity platforms, it is the joint contribution of individuals and institutions from different stakeholder groups to a creative process of developing new concepts, approaches or products. See <u>Chapter 6 – Section 6.2</u> of this guidebook.
Community of practice	"Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly." Reference: Wenger-Trayner, E. and Wenger-Trayner, B. (2015). Communities of practice. A brief introduction. <u>https://wenger-trayner.com/introduction-to-communities-of-practice/</u>
Co-production	In the context of national biodiversity platforms, it is the joint contribution of individuals and institutions from different stakeholder groups to the development of products and implementation of activities. See <u>Chapter 5 – Section 5.2</u> and <u>Chapter 6 – Section 6.2</u> of this guidebook.

TERM	DEFINITION
Credibility	The perceived quality, validity, and scientific adequacy of the people, processes and knowledge. See <u>Chapter 3</u> of this guidebook. Inspired by:
	Cash, D.W., Clark, W.C., Alcock, F., Dickson, N.M., Eckley, N., Guston, D.H. et al. (2003). Knowledge systems for sustainable development. Proceedings of the National Academy of Sciences of the United States of America 100(14), 8086–8091. <u>doi.org/10.1073/pnas.1231332100</u>
	Sarkki, S., Tinch, R., Niemelä, J., Heink, U., Waylen, K., Timaeus, J. et al. (2015). Adding 'iterativity' to the credibility, relevance, legitimacy: A novel scheme to highlight dynamic aspects of science-policy interfaces. Environmental Science & Policy 54, 505–512. <u>doi.org/10.1016/j.envsci.2015.02.016</u>
	United Nations Environment Program (2017). Strengthening the Science-policy Interface: A Gap Analysis. Nairobi, Kenya: UNON/Publishing Services Section. DEW/2143/NA. <u>https://wedocs.unep.org/handle/20.500.11822/22261</u>
Ecosystem services	Biodiversity is fundamental for providing ecosystem services, which are the "benefits people obtain from ecosystems. According to the original formulation of the Millennium Ecosystem Assessment, ecosystem services were divided into supporting, regulating, provisioning and cultural. This classification, however, is superseded in IPBES assessments by the nature's contributions to people system."
	Reference: Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (2019). Draft Glossary. Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Brondizio, E.S., Settele, J., Díaz, S. and Ngo, H.T. (eds). Bonn, Germany: IPBES Secretariat, p. 14. <u>www.ipbes.net/sites/default/files/ipbes_global_assessment_glossary_unedited_31may.pdf</u>
Free Prior and	"Free, Prior and Informed Consent (FPIC) is a specific right that pertains to Indigenous Peoples and is recognised in the United Nations Declaration on
Informed Consent	the Rights of Indigenous Peoples (UNDRIP). It allows them to give or withhold consent to a project that may affect them or their territories. Once they have given their consent, they can withdraw it at any stage. Furthermore, FPIC enables them to negotiate the conditions under which the project will be designed, implemented, monitored and evaluated. This is also embedded within the universal right to self-determination."
	Reference: Food and Agriculture Organisation of the United Nations (2021). Indigenous peoples. Free, Prior and Informed Consent (FPIC). www.fao.org/indigenous-peoples/our-pillars/fpic/en/
Horizon scanning	"Horizon scanning is the systematic outlook to detect early signs of potentially important developments. These can be weak (or early) signals, trends, wild cards or other developments, persistent problems, risks and threats, including matters at the margins of current thinking that challenge past assumptions."
	Reference: European Commission, Directorate-General for Research and Innovation (2016). Models of Horizon Scanning. How to Integrate Horizon Scanning into European Research and Innovation Policies. Brussels: Publications Office, p. 4.
	https://op.europa.eu/en/publication-detail/-/publication/88ea0daa-0c3c-11e6-ba9a-01aa75ed71a1/language-en

TERM	DEFINITION	
Human rights-based approach	"A human rights-based approach is a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights. It seeks to analyse inequalities which lie at the heart of development problems and redress discriminatory practices and unjust distributions of power that impede development progress. [] A human rights-based approach identifies rights-holders and their entitlements and corresponding duty-bearers and their obligations, and works towards strengthening the capacities of rights-holders to make their claims and of duty-bearers to meet their obligations." Reference: United Nations Office of the United Nations High Commissioner for Human Rights (2006). Frequently asked questions on a human rights-based approach to development cooperation. Geneva. HR/PUB/06/8, p. 15. www.ohchr.org/Documents/Publications/FAQen.pdf	
Indigenous and local knowledge	"Indigenous and local knowledge systems are in general understood to be dynamic bodies of integrated, holistic, social and ecological knowledge, prac- tices and beliefs pertaining to the relationship of living beings, including people, with one another and with their environments. Indigenous and local knowledge is grounded in territory, is highly diverse and is continuously evolving through the interaction of experiences, innovations and various types of knowledge (written, oral, visual, tacit, gendered, practical and scientific). Such knowledge can provide information, methods, theory and practice for sustainable ecosystem management. Many indigenous and local knowledge systems are empirically tested, applied, contested and validated through different means in different contexts." <i>(IPBES 2017, p. 32)</i>	
	"Local and indigenous knowledge refers to the understandings, skills and philosophies developed by societies with long histories of interaction with their natural surroundings. For rural and Indigenous Peoples, local knowledge informs decision-making about fundamental aspects of day-to-day life. This knowledge is integral to a cultural complex that also encompasses language, systems of classification, resource use practices, social interactions, ritual and spirituality. These unique ways of knowing are important facets of the world's cultural diversity, and provide a foundation for locally-appropriate sustainable development." (UNESCO 2021) <i>References:</i>	
	IPBES Intergovernmental Platform on Biodiversity and Ecosystem Services (2017). Report of the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on the work of its Fifth Session. Bonn, Germany. 7–10 March. IPBES/5/15. <u>https://ipbes.net/events/ipbes-5-plenary</u> UNESCO United Nations Educational, Scientific and Cultural Organization (2021). Local and Indigenous Knowledge Systems (LINKS). <u>https://en.unesco.org/links</u>	
Indigenous Peoples and local communities	"Indigenous Peoples and local communities are, typically, ethnic groups who are descended from and identify with the original inhabitants of a given region, in contrast to groups that have settled, occupied or colonised the area more recently." Reference: Intergovernmental Platform on Biodiversity and Ecosystem Services (no date). Glossary. <u>https://ipbes.net/glossary</u>	

TERM	DEFINITION
Institutional memory	It is the knowledge and experience by individuals in an organisation together with information stored in form of files (e.g., reports and databases) that contribute to shared stories of the past (e.g., how decisions have been taken). It can enable learning within an organisation by reflecting on the history and purpose of that organisation as well as past successes and failures. A high staff turnover can undermine the institutional memory. Inspired by: Corbett, J., Grube, D.C., Lovell, H. and Scott, R. (2018). Singular memory or institutional memories? Toward a dynamic approach. Governance 31(3), 555–573. doi: 10.1111/gove.12340
Knowledge broker	An actor that 1) facilitates knowledge exchange between knowledge holders and knowledge users (e.g., between stakeholders from science, policy and practice), 2) creates spaces for translating and communicating knowledge questions and answers, and 3) creates spaces for the co-creation of new knowledge. Activities performed by knowledge brokers include management and facilitation of processes, integrating and transforming existing knowledge into usable knowledge, locating and involving relevant experts and expertise, and building bridges between disciplines. Inspired by: Turnhout, E., Stuiver, M., Klostermann, J., Harms, B. and Leeuwis, C. (2013). New roles of science in society: different repertoires of knowledge broker-ing. Science and Public Policy 40(3), 354–365. doi: 10.1093/scipol/scs114
Knowledge brokerage	A process of 1) supplying knowledge to knowledge users, 2) engaging in interactive processes of bridging between knowledge producers and knowledge users by communicating knowledge questions and answers, and 3) facilitating the "integration of knowledge production and use in order to create solu- tions for the problems at hand." In particular during the process of facilitating the integration of knowledge production and use, "all the actors involved, including the knowledge broker, are considered to be relevant knowledge holders and become partners in a joint process." Inspired by: Turnhout, E., Stuiver, M., Klostermann, J., Harms, B. and Leeuwis, C. (2013). New roles of science in society: different repertoires of knowledge broker- ing. Science and Public Policy 40(3), 354–365. <u>doi: 10.1093/scipol/scs114</u>
Knowledge holder	In general, it is a person recognised for having expertise on a particular topic. In the context of Indigenous Peoples, knowledge holders are "members of Indigenous Peoples and local communities who are knowledgeable in various aspects and forms of indigenous knowledge; Such members are recognised in their communities for their expertise and depth of knowledge." <i>Reference: IGI Global Publisher of Timely Knowledge (2022). What are Knowledge Holders. <u>www.igi-global.com/dictionary/research-protocols-and-ethi-</u> <u>cal-considerations-in-indigenous-knowledge-systems/56629</u></i>

TERM	DEFINITION
Knowledge system	"A body of propositions that are adhered to, whether formally or informally, and are routinely used to claim truth. They are organised structures and dynamic processes (a) generating and representing content, components, classes, or types of knowledge, that are (b) domain-specific or characterised by domain-relevant features as defined by the user or consumer, (c) reinforced by a set of logical relationships that connect the content of knowledge to its value (utility), (d) enhanced by a set of iterative processes that enable the evolution, revision, adaptation, and advances, and (e) subject to criteria of relevance, reliability, and quality." <i>Reference: Intergovernmental Platform on Biodiversity and Ecosystem Services (no date). Glossary.</i> <u>https://ipbes.net/glossary</u>
Legitimacy	The perceived fairness, transparency, and inclusiveness of the processes of the science-policy-practice interface. See <u>Chapter 3</u> of this guidebook. Inspired by:
	Cash, D.W., Clark, W.C., Alcock, F., Dickson, N.M., Eckley, N., Guston, D.H. et al. (2003). Knowledge systems for sustainable development. Proceedings of the National Academy of Sciences of the United States of America 100(14), 8086–8091. <u>doi.org/10.1073/pnas.1231332100</u>
	Sarkki, S., Tinch, R., Niemelä, J., Heink, U., Waylen, K., Timaeus, J. et al. (2015). Adding 'iterativity' to the credibility, relevance, legitimacy: A novel scheme to highlight dynamic aspects of science-policy interfaces. Environmental Science & Policy 54, 505–512. <u>doi.org/10.1016/j.envsci.2015.02.016</u>
	United Nations Environment Program (2017). Strengthening the Science-policy Interface: A Gap Analysis. Nairobi, Kenya: UNON/Publishing Services Section. DEW/2143/NA. <u>https://wedocs.unep.org/handle/20.500.11822/22261</u>
Monitoring and evaluation	"Monitoring [is] a continuous, methodical process of data collection and information gathering, throughout the life of a project. [] Evaluation is a learning and management tool; assessing what has taken place in order to improve future work." See <u>Chapter 7 – Section 7.1 of this guidebook</u> .
	Reference: Garbutt, A. (2013). Monitoring and Evaluation: A Guide for Small and Diaspora NGOs. Intrac for Civil Society, pp. 2–3. www.intrac.org/wpcms/wp-content/uploads/2013/10/ME_A-Guide-for-Small-and-Diaspora-Organisations.pdf
Multiple Evidence Base Approach	It "emphasizes the complementarity of knowledge systems and the values of letting each knowledge system speak for itself, within its own context, without assigning one dominant knowledge system with the role of external validator. Complementary insights from different knowledge systems create an enriched picture of a case study or the broader issue of investigation."
	Reference: Tengö, M., Brondizio, E.S., Elmqvist, T., Malmer, P. and Spierenburg, M. (2014). Connecting diverse knowledge systems for enhanced ecosystem governance: the multiple evidence base approach. AMBIO 43(5), 579–591. <u>doi.org/10.1007/s13280-014-0501-3</u>

TERM	DEFINITION	
National biodiversity platform	A science-policy-practice interface working at the national level. It convenes stakeholders from different sectors to support greater integration of biodiversity and ecosystem services considerations into decision-making. See <u>Chapter 1</u> of this guidebook.	
Platform	In the context of national biodiversity platforms, a platform is an organisational structure for convening key knowledge holders and decision-makers in collaborative relationships. It can comprise various forms from informal networks for knowledge sharing to more formal organisations with a clear mandate of creating and managing a science-policy-practice interface. See <u>Chapter 5 – Section 5.1</u> of this guidebook.	
Relevance	 The perceived usefulness of the science-policy interface in responding to societal needs. More specifically, the appropriateness of information provided in terms of scope, scale, timing, quality, level of detail for an actor's decisions, or for the choices that affect a given stakeholder. See <u>Chapter 3</u> of this guidebook. Inspired by: Cash, D.W., Clark, W.C., Alcock, F., Dickson, N.M., Eckley, N., Guston, D.H. et al. (2003). Knowledge systems for sustainable development. Proceedings of the National Academy of Sciences of the United States of America 100(14), 8086–8091. <u>doi.org/10.1073/pnas.1231332100</u> Sarkki, S., Tinch, R., Niemelä, J., Heink, U., Waylen, K., Timaeus, J. et al. (2015). Adding 'iterativity' to the credibility, relevance, legitimacy: A novel scheme to highlight dynamic aspects of science-policy interfaces. Environmental Science & Policy 54, 505–512. <u>doi.org/10.1016/j.envsci.2015.02.016</u> United Nations Environment Program (2017). Strengthening the Science-policy Interface: A Gap Analysis. Nairobi, Kenya: UNON/Publishing Services Section. DEW/2143/NA. <u>https://wedocs.unep.org/handle/20.500.11822/22261</u> 	
Science-policy- practice interface	"[I]nitiatives or projects that work at the boundary of science, policy and society." See <u>Box 1.1</u> of this guidebook. Reference: Sarkki, S., Tinch, R., Niemelä, J., Heink, U., Waylen, K., Timaeus, J. et al. (2015). Adding 'iterativity' to the credibility, relevance, legitimacy: A novel scheme to highlight dynamic aspects of science–policy interfaces. Environmental Science & Policy 54, 505–512. <u>doi.org/10.1016/j.envsci.2015.02.016</u>	

TERM	DEFINITION
Stakeholders	All people affected by a project, policy, study or decision, or who have an important influence on its outcome. See <u>Chapter 6 – Section 6.2</u> of this guidebook. Inspired by: ValuES – Methods for integrating ecosystem services into policy, planning and practice (2017). Stakeholder Analysis. <u>http://aboutvalues.net/data/method_navigator/values_method_profile_identification_of_stakeholders_en.pdf</u>
Strategic planning	An "organizational management activity that is used to set priorities, focus energy and resources, strengthen operations, ensure that employees and other stakeholders are working toward common goals, establish agreement around intended outcomes/ results, and assess and adjust the organization's direction in response to a changing environment." See <u>Chapter 4 – Section 4.2</u> of this guidebook. Reference: Kushi, S. (2017). Strategic planning for NGOs: A guide to understand the basics of strategic planning. <u>https://www.linkedin.com/pulse/strategic-planning-ngos-guide-understand-basics-samina-khushi/</u>

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Appendix

National and Regional Biodiversity Platforms consulted for this guidebook

COUNTRY	NATIONAL BIODIVERSITY PLATFORM	WEBSITE
Azerbaijan	National Biodiversity Platforms of Azerbaijan	Please check here for information available on the IPBES website
Belgium	Belgian Biodiversity Platform (BBPF)	www.biodiversity.be
Brazil	Plataforma Brasileira de Biodiversidade e Serviços Ecossistêmicos (BPBES) / Brazilian Platform on Biodiversity and Ecosystem Services	www.bpbes.net.br
Cameroon	National Platform for Science Policy Interface on Biodiversity and Ecosystem Services	Please check here for information available on the IPBES website
Colombia	Colombian National Committee of IPBES	http://www.humboldt.org.co/es/component/k2/item/1104- ipbes-colombia
Denmark	IPBES Denmark	www.ipbes.dk
Democratic Republic of the Congo	Biodiversité et Services Écosystémiques en République Démocratique du Congo (BioSE-RDC)	Please check here for information available on the <u>IPBES website</u>
France	French Committee for IPBES	www.fondationbiodiversite.fr/la-frb-en-action/nos-implications/ ipbes/
Germany	German Network-Forum for Biodiversity Research (NeFo)	www.biodiversity.de
Grenada	Sustainable Development Council	Please check here for information available on the IPBES website
Madagascar	The platform is not yet formalised, but the limited "group IPBES" or "Noyau dur" has been working since 2015 – housed within the Department of Biodiversity and Protected Areas, Ministry of the Environment and Sustainable Development	Please check here for information available on the <u>IPBES website</u>
Mexico	Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO)	www.biodiversidad.gob.mx
Могоссо	Ministry of Energy, Mines and Environment – Department of Environment	Please check here for information available in the IPBES website
Nigeria	Nigerian Platform on Biodiversity and Ecosystem Services	Please check here for information available on the IPBES website
South Africa	South Africa National IPBES Hub	www.environment.gov.za/projectsprogrammes/ipbes
Sweden	Scientific Council for Biodiversity and Ecosystem Services at the Swedish Environmental Protection Agency	Please check here for information available in the IPBES website
Switzerland	Swiss Biodiversity Forum	https://biodiversity.scnat.ch/
Vietnam	National Biodiversity Platforms of Vietnam	Please check here for information available in the IPBES website
Regional Platform: West Africa	WABES (West African Biodiversity and Ecosystem Services) – Supporting the West African contribution to IPBES	https://wabes.org/