Reflections on Science-Policy Interfaces in the development of National Biodiversity Strategies

The Brief in brief

This brief outlines lessons learned from the Science-Policy Interfaces (SPIs) in the development of National Biodiversity Strategies (NBSs) in Germany, Switzerland, Romania, Belgium, Finland and Scotland.

What are National Biodiversity Strategies, and why study their Science-Policy Interfaces?

Signatory states of the Convention on Biological Diversity (CBD) are required to develop National Biodiversity Strategies (NBSs) to implement the CBD at the national level. Developing policy to conserve and sustainably use biodiversity requires a considerable amount of scientific knowledge, and knowledge about the national policy-making system and the implementation context. Therefore, the development of NBSs can profit from a well-designed SPI that can join up these different types of expertise.

Science can be pro-active in driving NBS processes

Bringing biodiversity onto the policy agenda is a key starting point in science-policy interactions. Although the decision to develop or revise an NBS is most often driven by political actors or by interest groups, science and its interactions with these actors can play a significant role in starting the NBS process. In Switzerland, for example, the Swiss Biodiversity Forum, representing the Swiss biodiversity science community, wrote a range of publications summarizing the status of biodiversity in Switzerland and recommending that a Swiss NBS be developed. The forum communicated these publications during meetings with parliamentarians, and their message was also taken up by NGOs. In other countries such a pro-active approach from the science community was less obvious or non-existent.

Be clear about the NBS process

Whether driven by science or policy, it is essential once the NBS development process is up and running to clarify the role and the processes leading to the NBS. Although such processes may be obvious to those involved or familiar with policy-making, they are opaque to most scientists. Unclear arrangements can lead to working practices that do not adequately match the purpose of the NBS. It is therefore very important to be clear about what the NBS is and is not, and also to be transparent about the process leading to NBSs.

Although using existing structures and policies can be cost-effective and adequate, it is worth considering whether new structures or activities are needed for the purpose of the NBS development and implementation. There is a risk, for example, that existing structures like advisory bodies on nature conservation, if poorly adapted to the tasks at hand, end up being allocated isolated tasks leading to confusing and inefficient work, with groups following their own line of interest. Pulling all these disparate groups back together in the formulation of NBSs will be difficult. In the same way, broadening the implementation to cover not only existing/ongoing policy activities but also new ones or policy activities in other sectors may maximise the potential of NBSs.

Encourage participation

Our case studies highlighted that a favoured strategy in the development of NBSs was to start the process by restrictively including parties holding similar values and knowledge about the environment in order to specify and refine issues. Following on from this more restrictive approach, participation was then broadened to include groups beyond the environmental community. While this helped in the case of Germany to enhance productive problem-oriented work and strengthen support of a policy process by the biodiversity community, it also increased opposition among those excluded or only included in later phases (such as NGOs, non-environmental sectors etc).

During the design and formulation of (draft) strategy documents, establishing a participatory process may be key. It is important, however, that participatory processes are not used merely to legitimise policy, but are genuine efforts to integrate a variety of constructive views and knowledges in the process. This will require willingness from governments to support such processes, as well as willingness from other potential stakeholders to contribute. While this is not new, it is not trivial to achieve in practice since willingness of governments and participants to engage in a serious participation process depend on a range of factors.

An important aspect of successful participation is the need for feedback. Our case studies showed that processes were evaluated more positively when stakeholders felt their input had been taken into consideration. This is not to say that all input should be included in draft documents, but rather that feedback should be provided to stakeholders, explaining whether input was used in the NBS or not, and why.

A key consideration with participatory processes is cost. Good participation processes require dedicated resources, including moderation/mediation capacities.

Increase mutual understanding of science and policy

To work together productively, particularly under time-bound limiting circumstances like the design of a NBS, requires mutual understanding of constraints that scientists and policy-makers have to deal with.

This requires on the one hand that scientists have a better understanding of the policy-making processes at play in the development of the NBS, and on the other hand that scientific knowledge be presented in a form that fits the specific context set by the ministries and agencies leading the process in order to increase the likelihood of uptake. Another important issue is the need to understand where biodiversity goals may be conflicting with goals in other sectors. Indeed, an NBS process will inevitably highlight different agendas, which need to be considered by policy. Scientific justification is only one facet of a complex social issue, and may lead to scientists becoming "advocates" of one side of the political debate. Formulating policies using transparent discursive processes that can lead to compromises (or ideally to consensus) will therefore be more likely to make policies more palatable to wider interests. This is important in the case of NBSs, where implementation through national biodiversity planning will require input from a range of organisations and individuals.

Mutual understanding of science and policy can be helped through the involvement of people and institutions acting as bridges ("knowledge brokers" or linkers). Informal face-to-face interactions between scientists, administrators and NGOs can also be immensely helpful.

Handling different representations of nature and the environment

Many different representations or framings of nature and/or the environment can make collaboration around the development of environment policies difficult.

In our case studies we observed two strategies to deal with different representations. The first strategy was to establish or strengthen a community around the representation of 'Nature' as 'Biodiversity'. In Germany for example, the process leading to the NBS was restricted to a group with shared representations and values of nature and environmental problems, with the objective of solving

constructively a common issue (biodiversity loss) and not engaging in conflicts about the nature of the issue. This strengthened and contributed to build a "biodiversity community". A similar process was observed in Switzerland where scientists engaged in a long process of building a biodiversity community including scientists, NGOs, politicians and policy-makers. This created a strong community feeling within the group. The second strategy (for example in Scotland) was to combine different and often conflicting representations of nature. These included biodiversity versus nature, holistic versus more focused concepts (e.g. ecosystem management versus species and habitats), concepts with a utilitarian emphasis (ecosystem services) versus concepts including a broader value perspective (intrinsic value). To bring together people with different representations of nature, they needed to be discussed and negotiated together in a careful way, for example, by not excluding species or habitat approaches or ecosystem services approaches but rather by linking them. Whilst none of these two strategies can be deemed "better", the issue of different representations of nature does need to be considered, and appropriate strategies identified to address this issue.

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