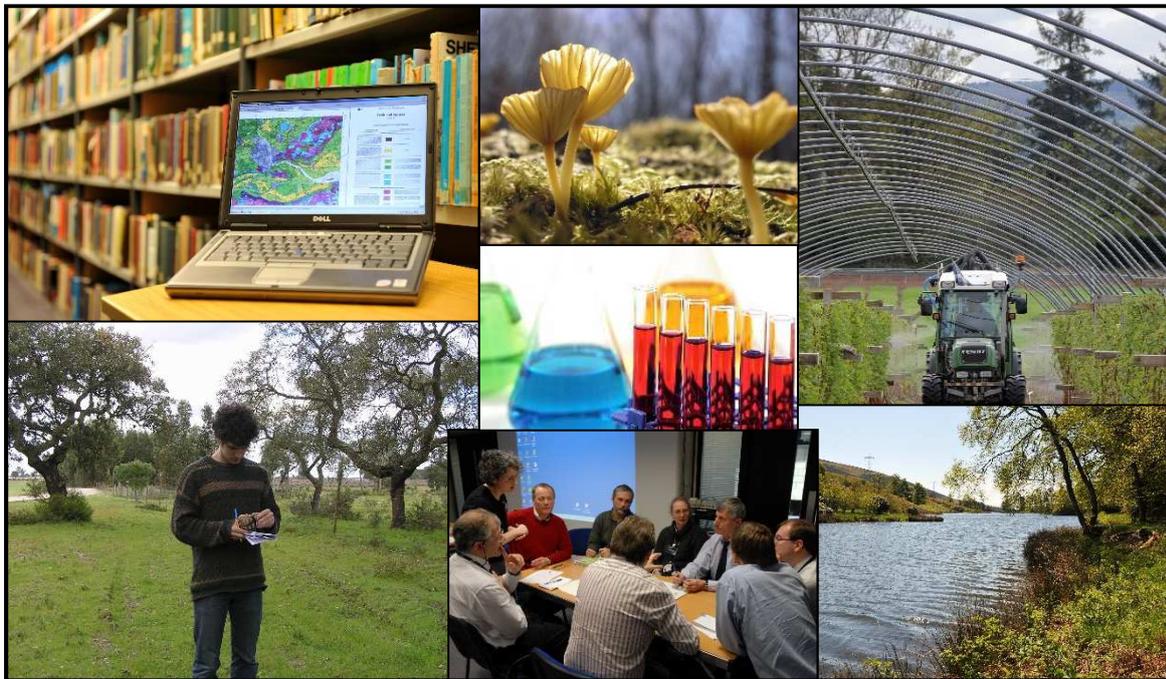


Policy-driven Monitoring and Evaluation across Europe: Priorities for Improvement

This 4-page briefing summarises ideas for how policy-driven monitoring and evaluation (M&E) could be improved to better support adaptive ecosystem management. It is based on a study of the monitoring requirements of three high profile European policies, which influence the management of freshwaters, farmland, and sites designated for the protection of valuable and threatened biodiversity. We find these monitoring programmes provide a useful basis for ecosystem management, but there are several areas where updates could allow them to better support decision-making about ecosystems.

The next page summarises the rationale, methods and main findings of this study; the following page focuses on the implications and recommendations. The last page provides contacts for more information.



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Why does monitoring and evaluation matter?

Sustainable ecosystem management requires monitoring & evaluation (M&E) that helps us to learn and to update our actions. To do this we need to monitor and appraise all aspects of socio-ecological systems; use a range of information types and sources; and transparently feed that information into decision-making. Unfortunately, at present M&E is often inadequate to support participatory and sustainable ecosystem management. Environmental policies often contain some stipulation about what can or should be monitored: and therefore offer a means to improve M&E. It is crucial to better understand policy influences on M&E, to identify opportunities for improvement.

What did we study?

Nine teams from research organisations across Europe (listed on page 4) collaborated in an initiative called 'MEEM' (Monitoring and Evaluation for Ecosystem Management) to understand policy-driven monitoring and evaluation practices in their country. Our collaboration was funded by a 'High Impact Action' funded by ALTER-Net, a network of partner institutes who research biodiversity and ecosystem services and inform policymakers and the public about these topics (www.alter-net.info).

We studied public documents for 3 influential European policy areas: Agri-Environment Schemes enabled by the European Agricultural Fund for Rural Development (itself part of the Common Agricultural Policy); The Water Framework Directive; and The Natura 2000 network designated under the Habitats Directive and Birds Directive. Of course, there are differences between these policies, and furthermore different countries and regions vary in how they transpose the policies; despite this there are key shared trends that we focus on here.

We compared official monitoring programmes that monitor farms, water bodies or protected areas against criteria for 'ideal' M&E. These criteria were based on the literature on monitoring for adaptive management of ecosystems. Adaptive management entails conducting natural resource management so as to enable learning. It is an essential concept in modern ecosystem management. The adaptive management cycle involves continuously designing and revising plans to promote knowledge collection and its use in decision-making, with the involvement all relevant stakeholders.

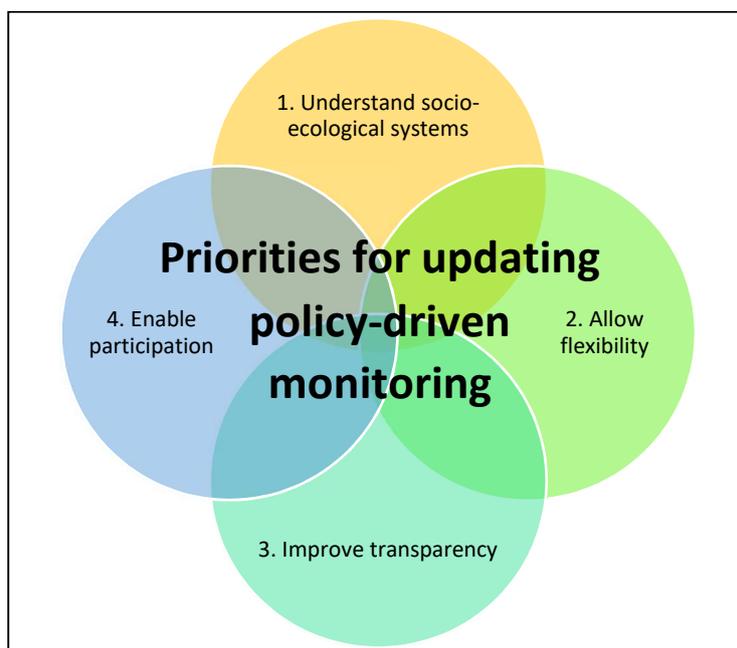
What did we find?

All three policy areas stipulate some form of monitoring and evaluation, which allows the potential for learning. Taken together they usually can build a good understanding of the state and trends in aspects of the environment. However, these monitoring programmes often fail to deliver the 'ideal' of what might be required to understand dynamic and multi-level socio-ecological systems. There are six main challenges:

1. Dedicating resources to describing environmental trends and ecosystems states can result in **limited ability to track the effects of management** interventions.
2. Focusing on **single issues** (e.g. building confidence in measurements of water quality) can come at the expense of understanding whole system perspectives.
3. There is a **lack of attention to social issues**, even though these are integral part of socio-ecological systems, and often drive changes that affect progress to targets.
4. There is **limited attention to context** (e.g. factors such as climate change, economic change) and how these might affect progress to targets.
5. Monitoring programmes generate much data: however, the public often has **limited ability to access these data** or understand without plain-language summaries.
6. There is often **limited transparency about if and how monitoring data are used** in evaluation of management activities; nor is there clear evidence as to how these data ultimately influence decision-making at any level from management to policy.

What are the implications and recommendations?

There are many ways in which the significant influence of policy can be directed to drive improvements in M&E. These do not always require additional resources, but do entail fresh consideration of what is monitored, and how the resulting data are evaluated and used – see the figure below.



- **Update monitoring to reflect current ideas about nature and its support to society**
 - Monitoring should allow us to understand system functions, not just system state.
 - Monitoring must reflect and include people as inherent part of systems – people both affect and benefit from nature. This will especially promote adoption of recent concepts such as natural capital, ecosystem services and green infrastructure.
 - Do not collect lots of data to improve certainty only about specific aspects of the system.
- **Allow flexibility to fill different gaps and reconsider balance of effort on different topics**
 - Rebalance effort put into understanding trends versus tracking the effects of interventions and actions – the latter may need more resources.
 - This is not necessarily about 'doing more' but 'doing better' – rebalancing our efforts and resources so that monitoring indicators and processes are targeted to decision-making.
- **Improve transparency of data and data uses**
 - Make data more public, wherever possible. (Sometimes proprietary data cannot be shared, but perhaps summaries can be.) Contextualise the data so it can be understood.
 - Describe the processes of the evaluation and learning that are planned as part of the adaptive management cycle. There may be more than one level at which this process occurs, i.e. data may feed into site management and also into national policy reviews.
- **Enable participation throughout the adaptive management cycle**
 - Encourage and value public and expert participation: not just as a 'stop gap' in data collection, but to help make every step of the adaptive management process more democratic and inclusive.
 - Specifically focus on enabling participation in the steps that follow data collection – i.e. in analysis and evaluation of data, and in decision-making.

Of course, specific places and policy areas will place different weights on different recommendations. For some data sharing may be more of a priority; for others, it may be most important to shift more resources to tracking management actions, or pivotal social issues. Whatever is decided the key principle is to promote a balanced and accessible approach to both monitoring and evaluation.

Examples from different regions and countries offer examples of good practice that can be used to help improvements. For example, many Scandinavian countries are leading the way when it comes to data-sharing and transparency. Therefore, we recommend a cross-national forum for reflection and reframing of monitoring programmes.

Addressing these challenges will result in improved and responsive decision-making, that visibly uses monitoring data to update planned management actions. This will ultimately help us to improve ecosystem management and public support for these activities.

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