



Introducing the 'MEEM' study - Monitoring and Evaluation for Ecosystem Management



Supported by The ALTER-Net High Impact Actions (AHIA) initiative and coordinated by the James Hutton Institute



Rationale for MEEM

- Monitoring & Evaluation (M&E) should be central to adaptive management of ecosystems - enables learning from past actions to improve future choices
 - Unfortunately M&E is often inadequate
- Europe has high profile **environmental policies** with much influence on ecosystem management
 - Therefore it is important to examine if and how Europe's policies shape M&E, and consider what could improve.



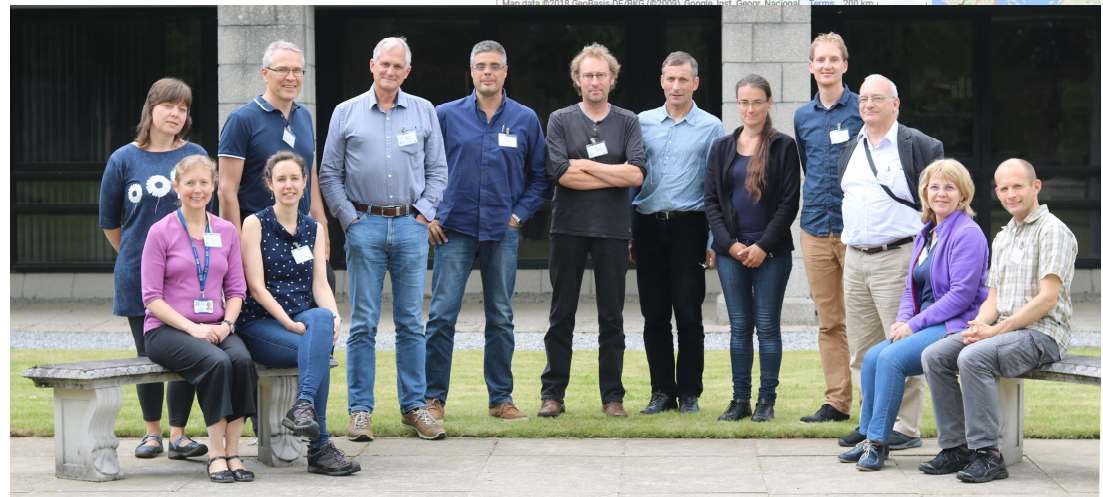
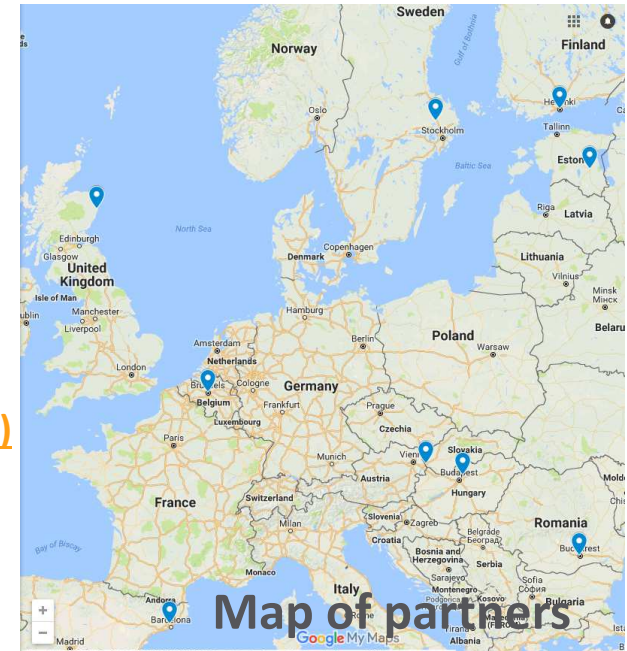
ALTER-Net and MEEM

- ALTER-Net <http://www.alter-net.info>
 - Network of leading institutes who integrate their research capability to: *“assess changes in biodiversity, analyse the effect of those changes on ecosystem services and inform the public and policy makers about this at a European scale”*
- ALTER-Net funds MEEM as a ‘High Impact Action’
<http://www.alter-net.info/ahia>
 - M&E affects ability to understand and manage biodiversity and ecosystems
 - Bringing together knowledge from different partners can help to identify key themes and challenges



The MEEM partners

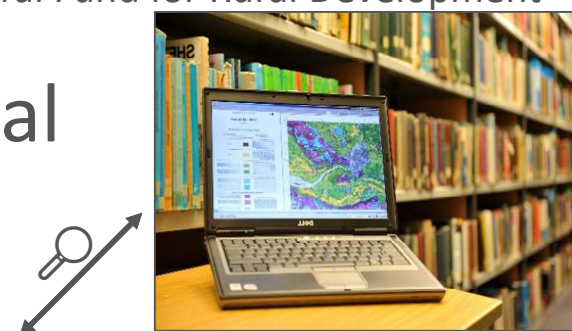
- 9 partners across Europe
 - Ecological and Forestry Research Applications Centre at the University of Barcelona (CREAF)
 - University of Bucharest
 - Estonian University of Life Sciences (EMU)
 - Finnish Environment Institute (SYKE)
 - Flemish Institute for Nature and Forest (INBO)
 - Hungary Academy of Sciences Centre for Ecological Research (MTA)
 - Institute of Landscape Ecology James Hutton Institute
 - Institute of Landscape Ecology Slovak Academy of Sciences (SAS)
 - Swedish University of Agricultural Sciences (SLU)
- Interdisciplinary
- Each team studied M&E in their country or region



Study approach

- 3 European policy areas– site level monitoring
 - The Water Framework Directive
 - The Natura 2000 network designated under the Habitats Directive and Birds Directive
 - Agri-Environment Schemes under the European Agricultural Fund for Rural Development

- Find public documents on official monitoring programmes



- Compared to criteria for ‘ideal’ M&E



What is monitored?	To understand (eco)system processes, both biotic and abiotic elements should be monitored, with a focus on the interactions that form the system or community To understand social and economic aspects of systems, these issues should be monitored, likely entailing coverage of demographics, economics and social attitudes and preferences. To understand system change, influential aspects of the social, technical, environmental, economic and policy context should be monitored.
How is monitoring is carried out?	Monitoring should use targeted collection of primary data and also relevant secondary data where available. Data provision can involve a range of individuals and organisations to improve data coverage as well as engagement Monitoring data should be accessible to its users and the public. Monitoring should use targeted collection of primary data and also relevant secondary data where available.
Does monitoring inform and influence decision-making?	The process by which monitoring data are expected to be used in decision making should be transparent Monitoring data should be used to inform and update management Monitoring data should be used to inform and update policy

Findings (1)

- Policy-driven M&E is producing useful information, especially on environmental state and trends 
- However, there are some common problems – some trends shared across places and policies



Findings (2)

■ Some common problems

1. Not enough attention on understanding **the effect of management actions** e.g.
2. Overly **focused on understanding a few issues** (e.g. many measurements of water quality) rather than a whole system perspective
3. Rarely much attention to **social issues**, even though these can be vital e.g. human activities in a protected area



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Findings (3)

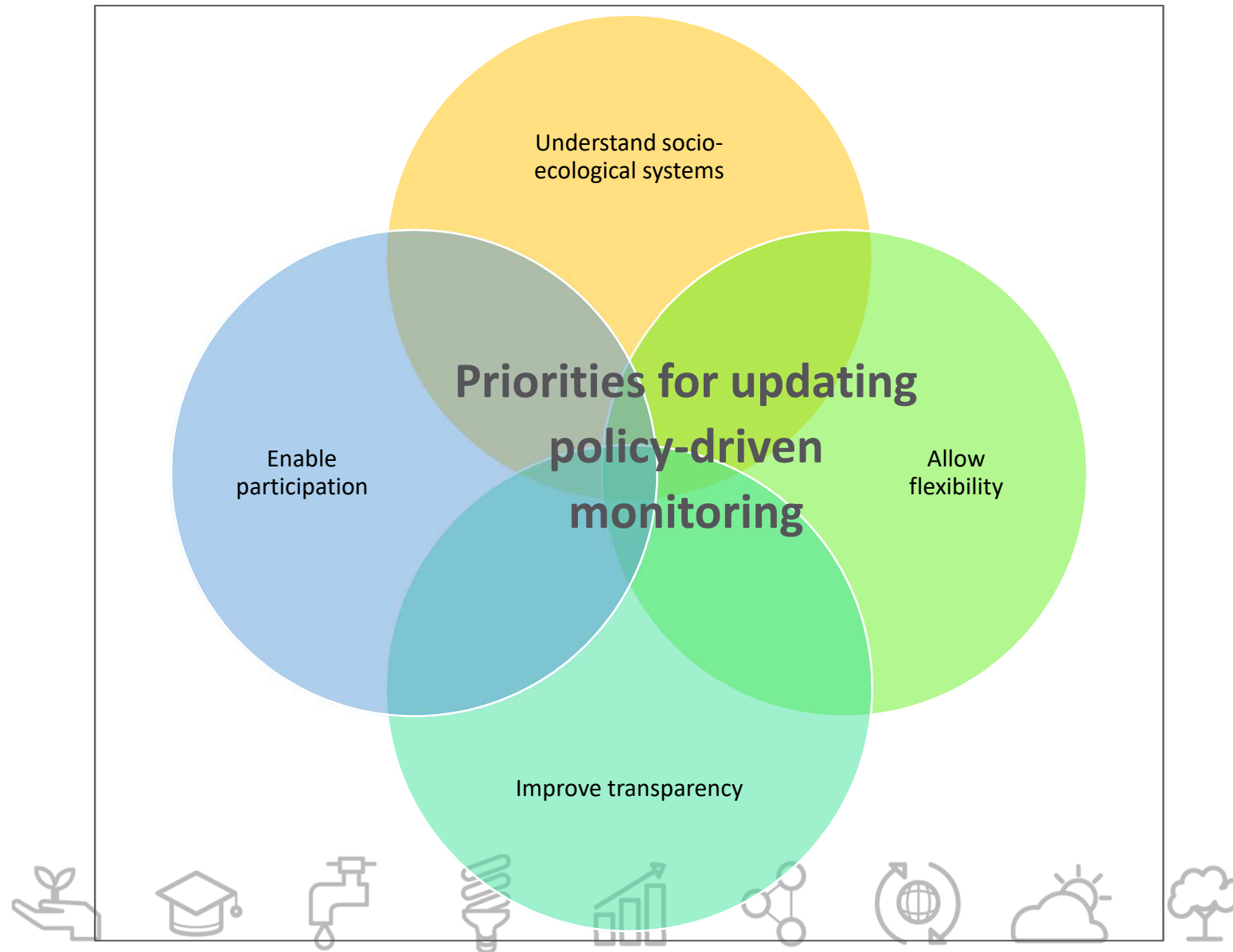
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4. Little **attention to contextual factors** that might affect target systems e.g. climate change, pressures on farmland birds affecting presence on farms, effects of pollution loading on waterways
5. Often **limited public access** to monitoring data
6. Little **transparency about if and how monitoring data are used** in evaluation; nor is there clear evidence as to how it ultimately influences decision-making at any level from management to policy

⇒ Opportunities for improvement!



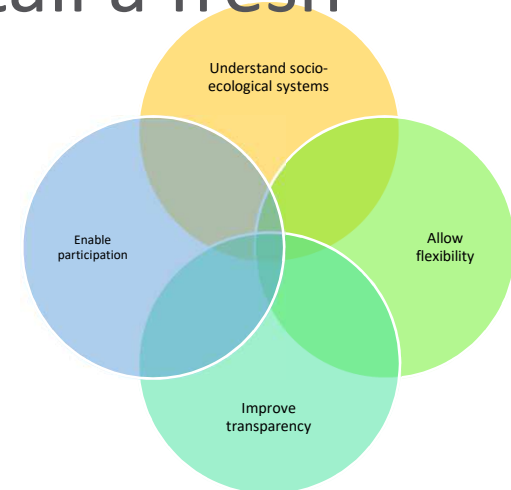
Implications and recommendations



Implications and recommendations

- Changing M&E does not always require additional resources, but does entail a fresh perspective

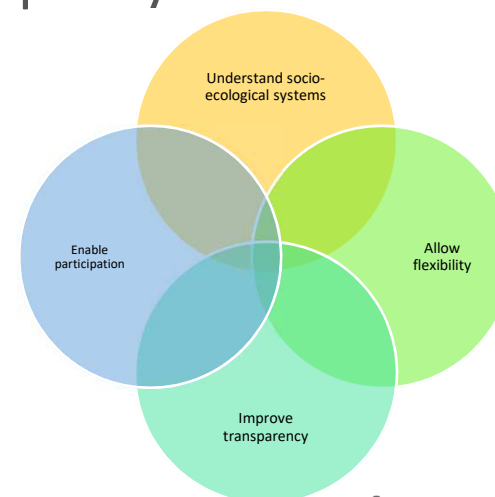
- A key principle is to promote a balanced and accessible M&E
- Should reflect current ideas about nature and its relationship with society – i.e. need to understand all parts of a ‘socio-ecological system’
- Allow flexibility to fill gaps, monitor new actions and balance effort on different topics
- Enable more participation – in data collection but also when using data in decision-making



Implications and recommendations

■ Ideas for next steps

- Specific implications will vary by place and policy areas – need to discuss locally
- Different regions and countries offer examples of good practice: cross-national sharing will be valuable



Addressing these challenges will result in improved and responsive decision-making, that visibly uses monitoring data to update ecosystem management.

This will ultimately help us improve environment management, so is an important goal!



More information

- 4-page briefing focused on recommendations
- Manuscript in submission
- Technical report

See www.hutton.ac.uk/meem



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