

Human dimensions in ecosystem-based fisheries management: On integrating social objectives in Sweden

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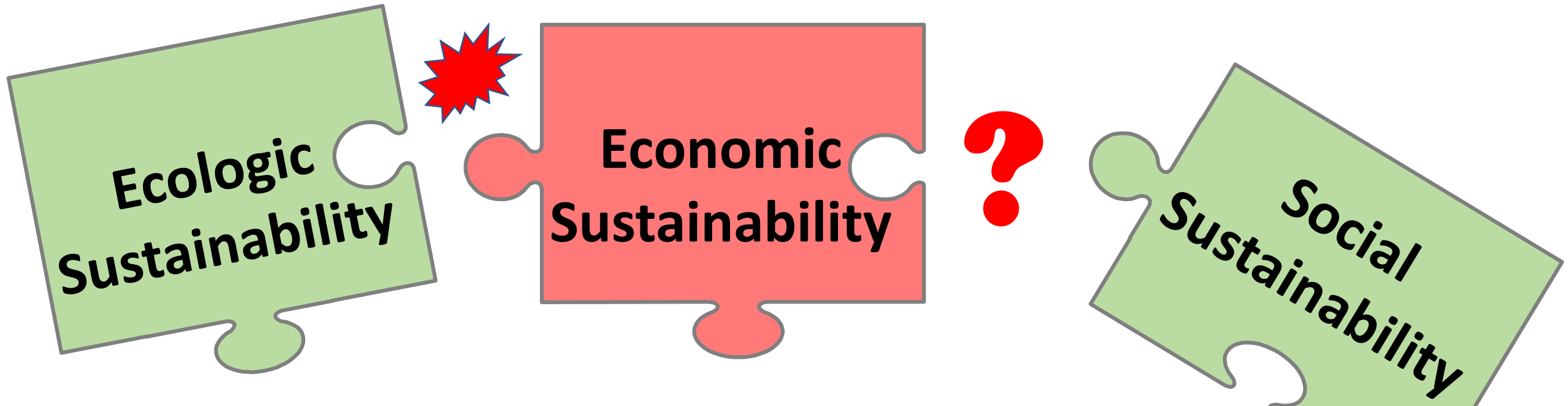
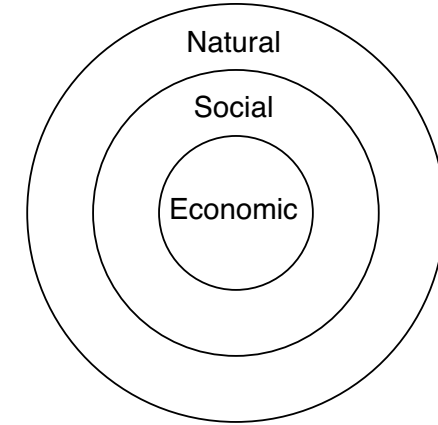
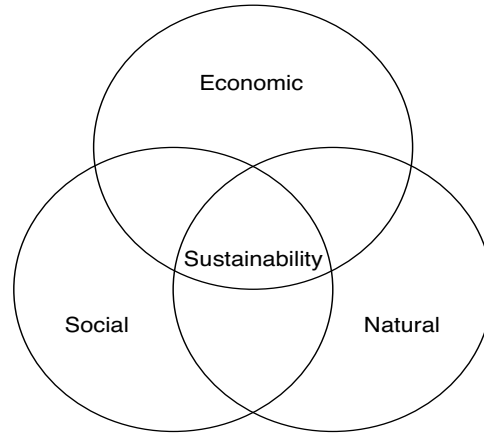
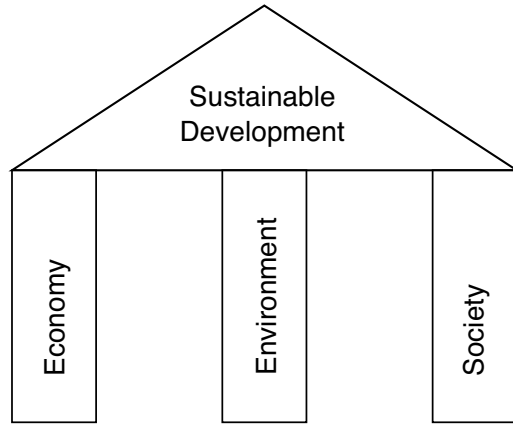
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MareFrame 2017



Sustainability Puzzle: How to fit in social aspects?



Social science for sustainability...

Charnley et al. 2017

How to integrate best available social science (BASS) into natural resource management?

- ***Social & ecological*** sustainability not only co-existing but ***interrelated***
 - Requires social science in decision-making!
- “***Best available science***” (BAS e.g. by ICES)
- Standards & criteria for “***best available social science***”: **BASS**
- Reducing scientific information to BAS criteria => unsustainable...

Social concepts for sustainability

Research on integrating social indicators in fisheries management and governance:

- ***Well-being*** (life quality)
 - ***Values*** (culture)
 - ***Agency*** (power)
 - ***Inequality*** (distribution)
- quant. & qualitative social sciences...

Hicks et al. 2016

SOCIAL SCIENCE AND SUSTAINABILITY

Engage key social concepts for sustainability

Social indicators, both mature and emerging, are underused



Social concepts for sustainability

- Social indicators: **Well-being, Values, Agency, Inequality**
- Conceptual & methodological issues: **power** relevant – how to individuals, companies, countries influence?
- Values, wellbeing & culture – multifaceted concepts, hard to grip for indicator development but progress e.g. place-base & cultural databases
- Inequality – to be addressed though “environmental justice” lens
- *Summary: progress, but how to combine qualitative & quantitative measures – critical for robust measurement for social objectives and indicators...*

Social aspects of EBFM in Sweden

- 2016: *Swedish Agency for Marine and Water Management (SwAM)*: government mandate to implement EBFM
- Developing an “EBFM implementation strategy”
(in dialogue with scientists, stakeholders, local governments & Board of Agriculture)
- **Which changes are needed for EBFM?**
→ What about the social aspects?
- Realization (SwAM): work for **social scientists** (how unique?)
- Synthesize knowledge on governance implications for EBFM:
social, legal & political aspects

Swedish Agency for Marine and Water Management

- *SwAM is a government agency that works for flourishing seas, lakes and streams for the benefit and enjoyment of all.*
- *we are responsible for managing the use and preventing the overuse of Sweden's marine and freshwater environments.*
- *we take into consideration the requirements of the ecosystem and people, both now and in the future.*
- *we do this by gathering knowledge, planning, and making decisions about actions to improve the environment.*
- *to be successful in these efforts, we coordinate and establish our efforts among everyone involved, both nationally and internationally.*
- *our decisions are taken based on sound knowledge and research.*

SwAM and the Swedish Institute for the Marine Environment – the project objectives

- To synthesize the knowledge on the governance implications to implement EBFM (social, legal and political).
- To carry out a workshop to gather Swedish social scientists to:
 - ✓ Define a roadmap for EBFM implementation
 - ✓ Identify research priorities for EBFM implementation

SwAM's six EBFM principles

1) Common objectives and participation

2) Nature's ability to produce goods and services is superior; precautionary principle to be applied

3) All kinds of knowledge should be considered

4) Socio-economic ecosystem evaluation

5) Delimitations in time and space

6) Flexibility and adaptability

The project

(SwAM & Swedish Institute for the Marine Environment)

- Workshop with Swedish social scientists to:
 - Contribute to developing a roadmap for EBFM implementation (2017)
 - Identify research priorities for EBFM implementation (social aspects)

Workshop preparation

- SwAM invited in total 30 natural scientists & fisheries managers to attend the workshop

Rationality: they are interested to know about the topic...

- Several Swedish social scientist, involved in previous participatory fishery processes not invited

Rationality: not “pure scientists” since working for stakeholders...

→ *Interdisciplinarity as a problem....*

Workshop results

1. How to define and prioritize EBFM management objectives in a participatory process?

*Without a balance on the **ecological system** there is nothing to be exploited, therefore the **balance** for ecological, economic and social objectives of EBFM **does not apply**. The **ecological objectives are prior** to other objectives.*

*The objective of EBFM is “long-term sustainable ecosystems” and **no prioritization** is needed.*

***Experts** should set the objectives and not necessarily stakeholders.*

Workshop results

2. What kind of knowledge should be considered (research needed)?

*EBFM demands **large quantities of knowledge**, ecological and social.*

3. How do existing governance frameworks and procedures need to be changed for EBFM in Sweden?

***Environmental** and **fisheries** management should be integrated and fishermen should be onboard. Good governance structures like the ones allowing fish stocks recovery should be kept.*

Conclusions

- (Swedish) fisheries managers face “**institutional trap**” - challenges implementation of social aspects into holistic ecosystem approach
- Actors become gradually **enervated** by discussions on common EBFM issues – not generating new outcomes (workshop)
- Managers and scientists are **missing a collective interdisciplinary vision** of governance implications for EBFM including social effects
- Various **(mis)interpretations** and **mistreatments** of the “social dimensions” of EA hinder implementation of EBFM in Sweden
- Clearer BASS criteria are needed...

Recommendations

- Develop EBFM implementation strategy – “**Action Plan**” based on **common understanding** & use of **co-management experiences** !
- Ensuring legitimate process incl. social values & power relations
- Account for expertise **beyond natural sciences** for developing criteria including BASS & other knowledge
- Consider & learn from other **global experiences** (e.g. US)

Our recommendations

- Continue working towards co-management implementation, considering lessons learned from previous co-management initiatives in Sweden.
- Develop an EBFM strategy with “Plan of Action” towards a common understanding of what is meant by EBFM.
- The EBFM implementation strategy should account for changes in social values and power relations at different levels of the governance system and be prepared for the emergence and resolution of normative and ethical disputes.
- Develop an overarching EBFM strategy where all parties involved in implementing remain accountable for the consequences of management actions.

Our recommendations

- Take account of research and expertise beyond the natural sciences as currently practiced in single species science-policy interactions of fisheries management.
- Consider other global experiences regarding EBFM implementations and how to integrate social and societal objectives in policy and management.
- Regard the implementation of EBFM as a “process”, which constantly requires social, political and legal changes and adaptations.
- Regard the implementation of EBFM as time and funding consuming

Thank you!



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National regulation of fisheries in Sweden

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Havs
och Vatten
myndigheten

For what purpose do we use the national mandate?

to preserve or improve the condition of fish stocks

to protect nature conservation values from fisheries activities (e.g. trawl limit and MPA regulations)

What is needed to develop EBFM with the help of national regulation?

- Knowledge - of the ecosystems but also about fisheries including recreational fisheries (currently no obligation to report, no national license, etc.)
- Assessment and follow up of regulations to enable adaptive management (both biological and socio-economic)
- Enable stakeholder involvement – how to make this cost/time effective?
- Resources – more is needed for all of this – where will it come from? what is feasible and how shall we prioritise?
 - Other requirements/needs? What is your view?