

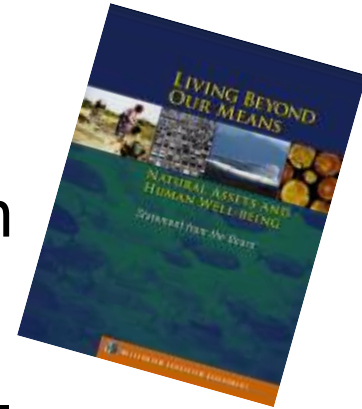


Keys to successful management of ecosystem services

Lessons learned from Kristianstads Vattenrike and other biosphere reserves

Lisen Schultz, Stockholm Resilience Centre

Millennium Ecosystem Assessment (2000-2005)



- The first global assessment of ecosystem services – 1360 experts from 95 nations
- UN-program, similar task as IPCC (Intergovernmental Panel on Climate Change)
- Focal questions: What is the current state of ecosystems? How do ecosystems affect human wellbeing? How can we manage ecosystems to sustain their capacity to generate ecosystem services?
- 33 sub-global assessments, including KV

Ecosystem services are the benefits that nature provides to people

Provisioning Food Raw materials Fresh water Medicinal resources ...	Regulating Air quality Carbon sequestration Buffering extremes Pollination Waste-water treatment ...	Cultural Recreation and health Tourism Education Inspiration for culture, art, design Sense of place ...
Supporting Habitats for species, maintenance of genetic diversity		

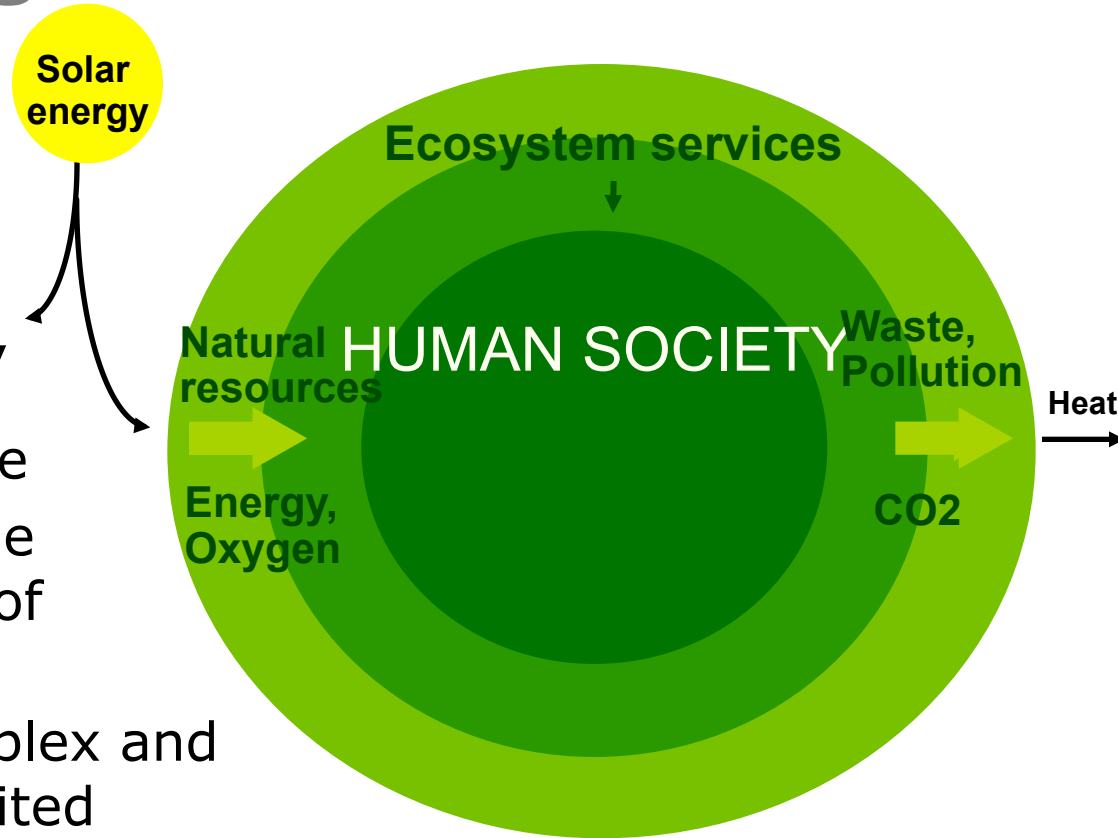
But what about the value of nature in its own right?

- Not mutually exclusive perspectives
- We are both emotional and utilitarian
- The concept is a crucial bridge between ecologists and economist
- Clarifies our dependence on nature
- Needs to be used wisely



Challenging results of the MA

- Ecosystem services decrease, people's needs increase
- Resilience decreases, disturbances and rapid change increase
- Humans have become the strongest driver of ecosystem change
- Ecosystems are complex and our knowledge is limited



What to do?

Kristianstads Vattenrike – a case to learn from

- A decline in ecological values was turned around
- Biodiversity conservation contributes to societal development
- Otherwise conflicting interests seem to work together
- Nature conservation takes place in a productive, semi-urban landscape

Research questions

- How is the current management organized, and how did the transformation of management happen? Historical analysis, interviews
- What are the ecosystem services and what groups are involved in managing them? Social-ecological inventory
- **What strategies and conditions enable management of ecosystem services, now and in the longer term? Synthesis**

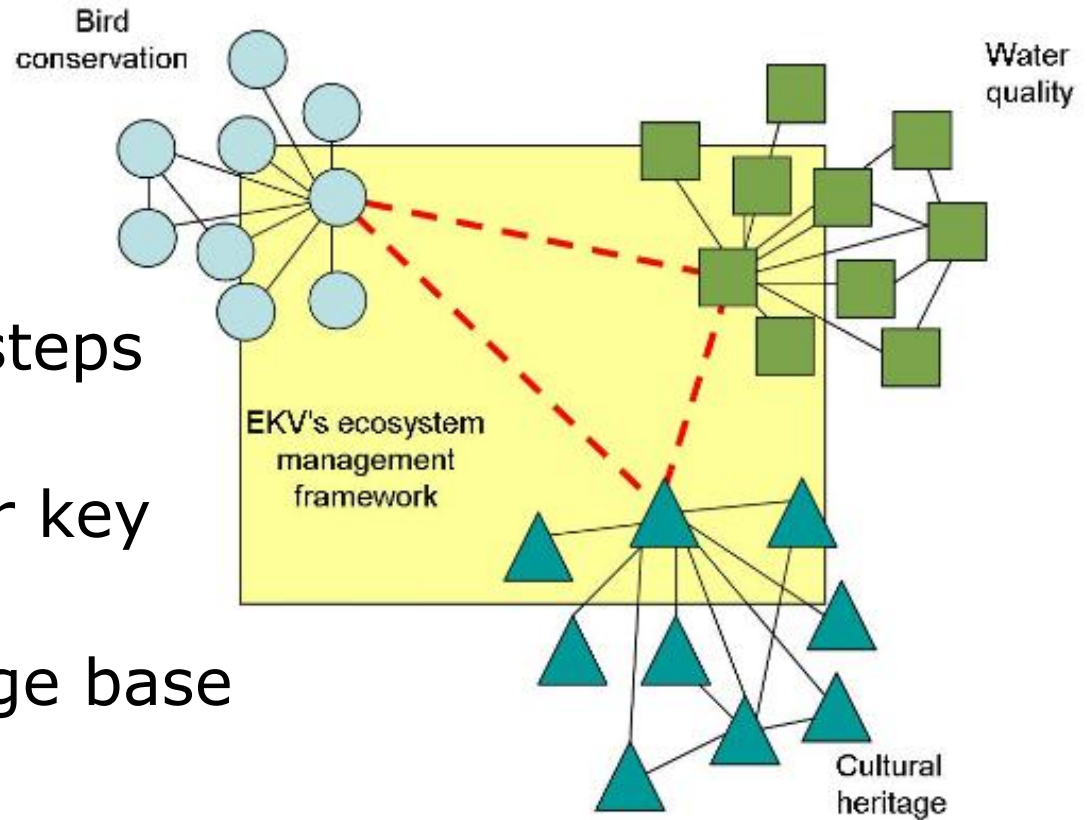
1960's and 1970's

- "We need to dredge this waterlogged, unhealthy swamp!" (Municipal Health Committee in the 60's)
- A garbage dump established on the wetlands
- Wetland reserve in the 1970's (RAMSAR)
- Several conservation projects initiated
- But values continued to decline



Mid 1980's: a network starts to form

- A key individual steps forward
- Connects to other key persons
- Builds a knowledge base of the situation



Developing a broad vision

To **preserve** and develop the ecological values and cultural heritage of the area, while at the same time making careful and sustainable **use** of these values, turning the wetland into a **Vattenrike** that would **put Kristianstad on the map**



Identifying win-win situations

- a researcher at Lund University – using wetlands for **reducing eutrophication**,
- an official at WWF Sweden – financing **nature conservation** projects,
- the rector at Kristianstad University – opportunities for **research and education**,
- a hotel director, previously President of the Kristianstad Tourism Board – **eco-tourism**
- the director of the National Museum of Natural History – demonstrating and conserving the **cultural landscape**

Seizing a window of opportunity

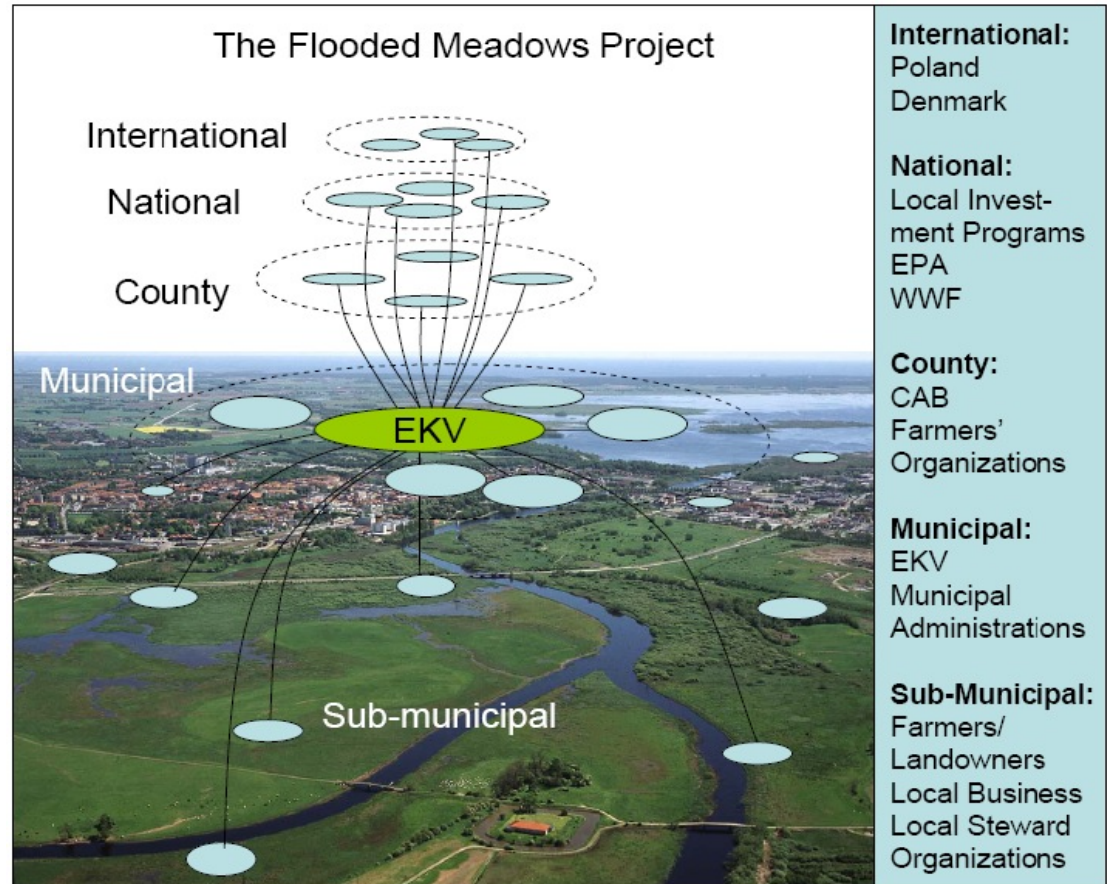
- Environmental issues high on the political agenda
- Kristianstad needed a new profile
- Contact with local top politicians

→ Ecomuseum launched in 1989

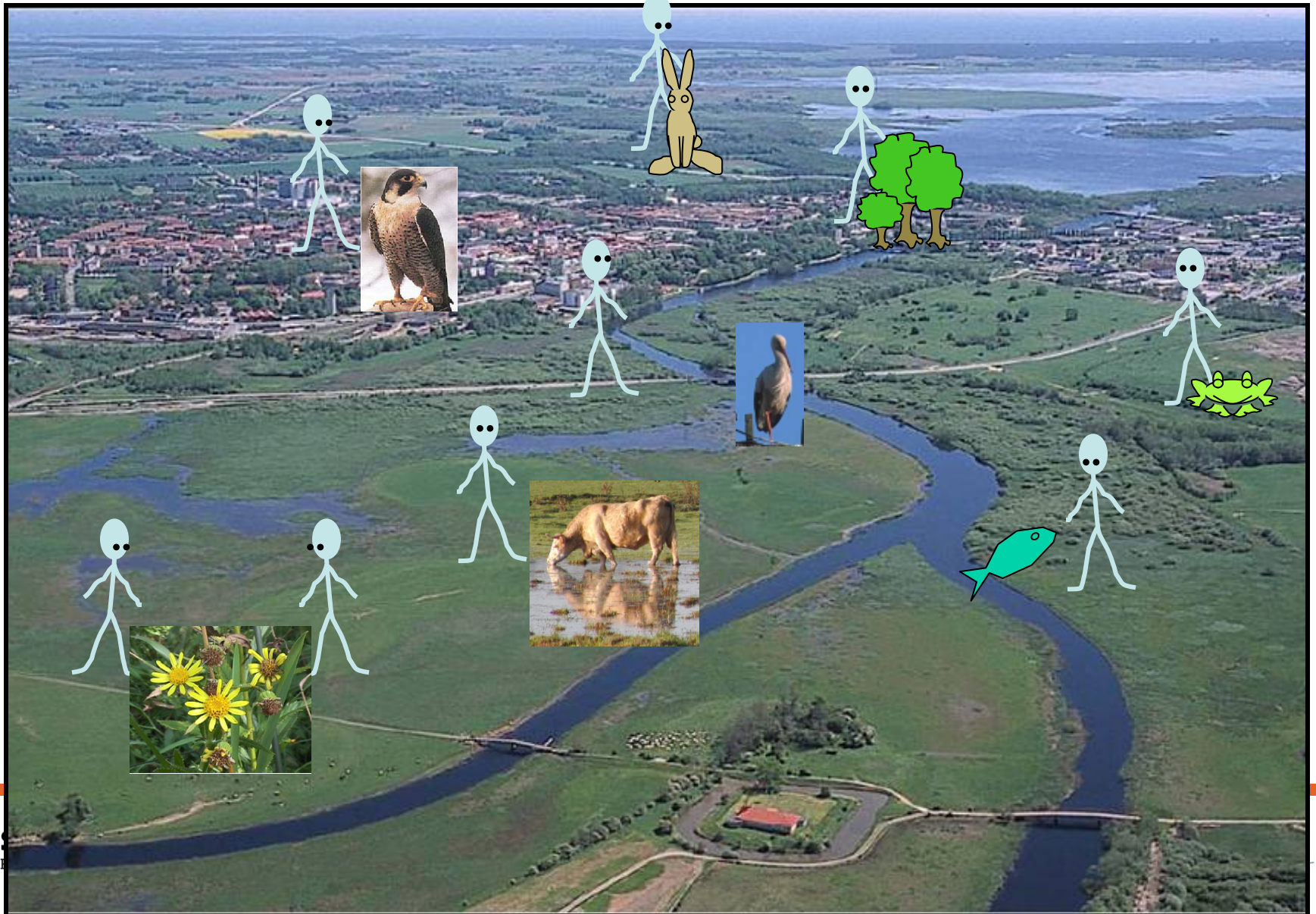


The Ecomuseum as a bridging organisation

- Nature conservation
- Environmental protection and production
- Eco-tourism and recreation
- Education
- Cultural heritage management



Build on the work of local stewards

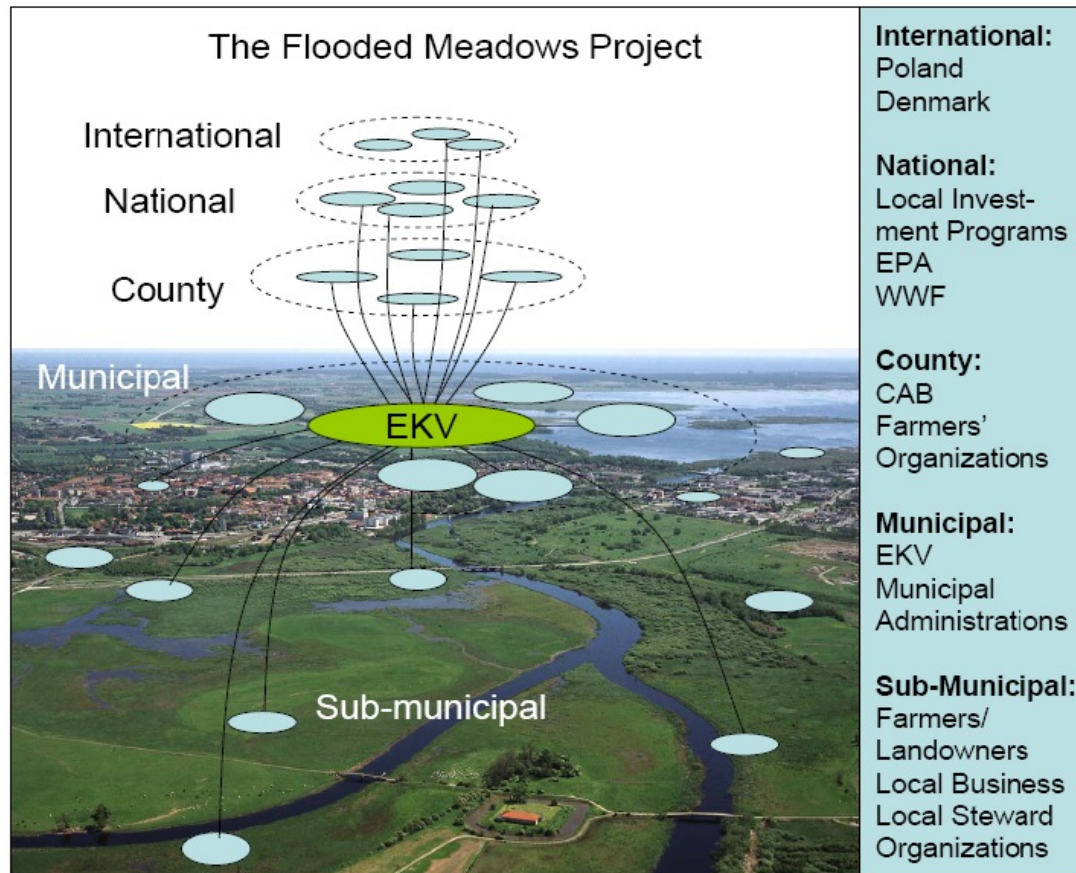


Contributions of local stewards

- On-site management
- Monitoring and response
- Local ecological knowledge
- Public support for ecosystem management
- Specialized networks



Contributions enhanced by links to other levels and by the landscape perspective



- Funding
- Expertise
- Windows of opportunity
- Appreciation and respect
- Coordination

Comparison within the World network of Biosphere Reserves

564 'learning sites' in 109 nations with the mission to **sustain ecosystem services for human well-being**

Three functions:

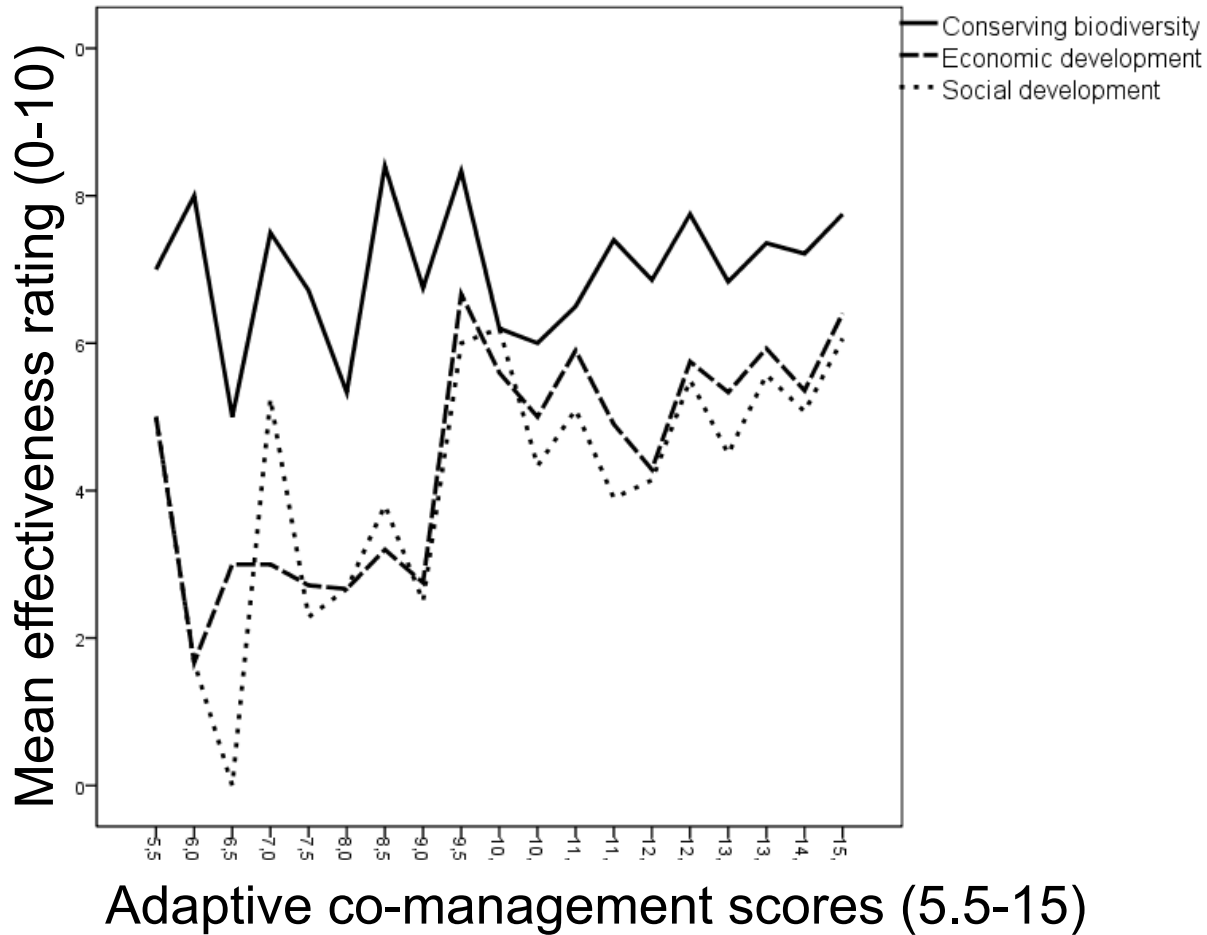
- Biodiversity conservation
- Sustainable development
- Research, monitoring and education

Recommendations of

- Adaptive management
- Local participation



Adaptive co-management and performance



Grading scheme based on 148 survey responses

Lessons from Kristianstads Vattenrike

- One landscape – multiple services
- Local stewards – bridging organization – higher levels (small core team and tailored networks)
- Adaptive co-management builds on personal relations between key individuals rather than formal links between various organizations
- Such voluntary, informal collaboration promotes learning and flexibility but is vulnerable
- Learning can change preferences and enhance motivation for ecosystem management
- Trust-building forestalls conflicts
- Strategic collaboration is an effective complement to broad participation and democratic processes

And now, over to you!

Questions, reflections, comments...

Breakout group discussions

1. Setting the scene (15 minutes)

- What are the ecosystem services generated in this protected area?
- Who are the managers, including potential local stewards?
- Who are the users?

Instructions: If you are not working in a specific area, think of one you know about. Take turns adding to the list. The aim of this exercise is to learn from each other.

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Breakout group

2. Sharing successes and failures of working with ecosystem services (25 minutes)

- Tell about a good example from your own experience
- Bring up a challenge that you would like to discuss

Instructions: Make sure everyone gets to share at least one success or challenge. Please take notes of issues you would like to share with the larger group.