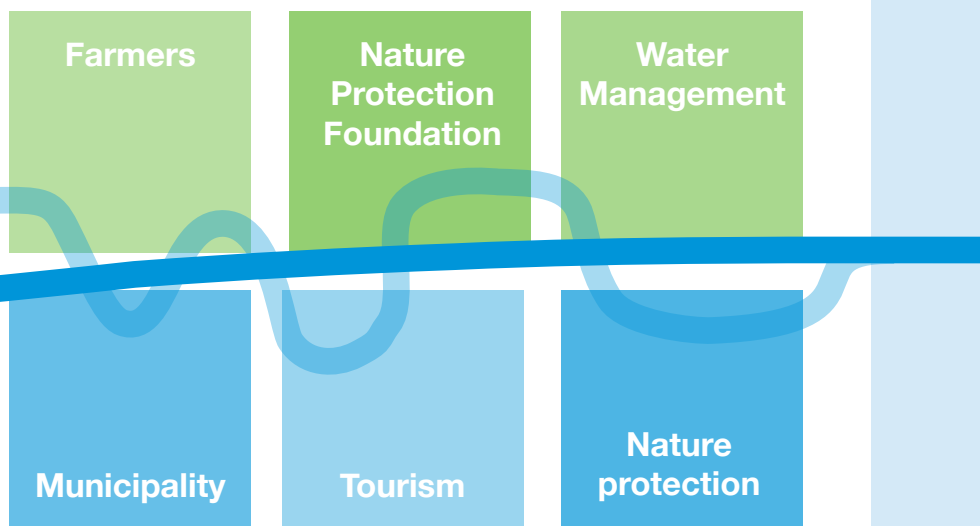


Improved regional cooperation in design and financing of river restoration measures by using the Ecosystem Services Approach

Practical insights for regional water managers



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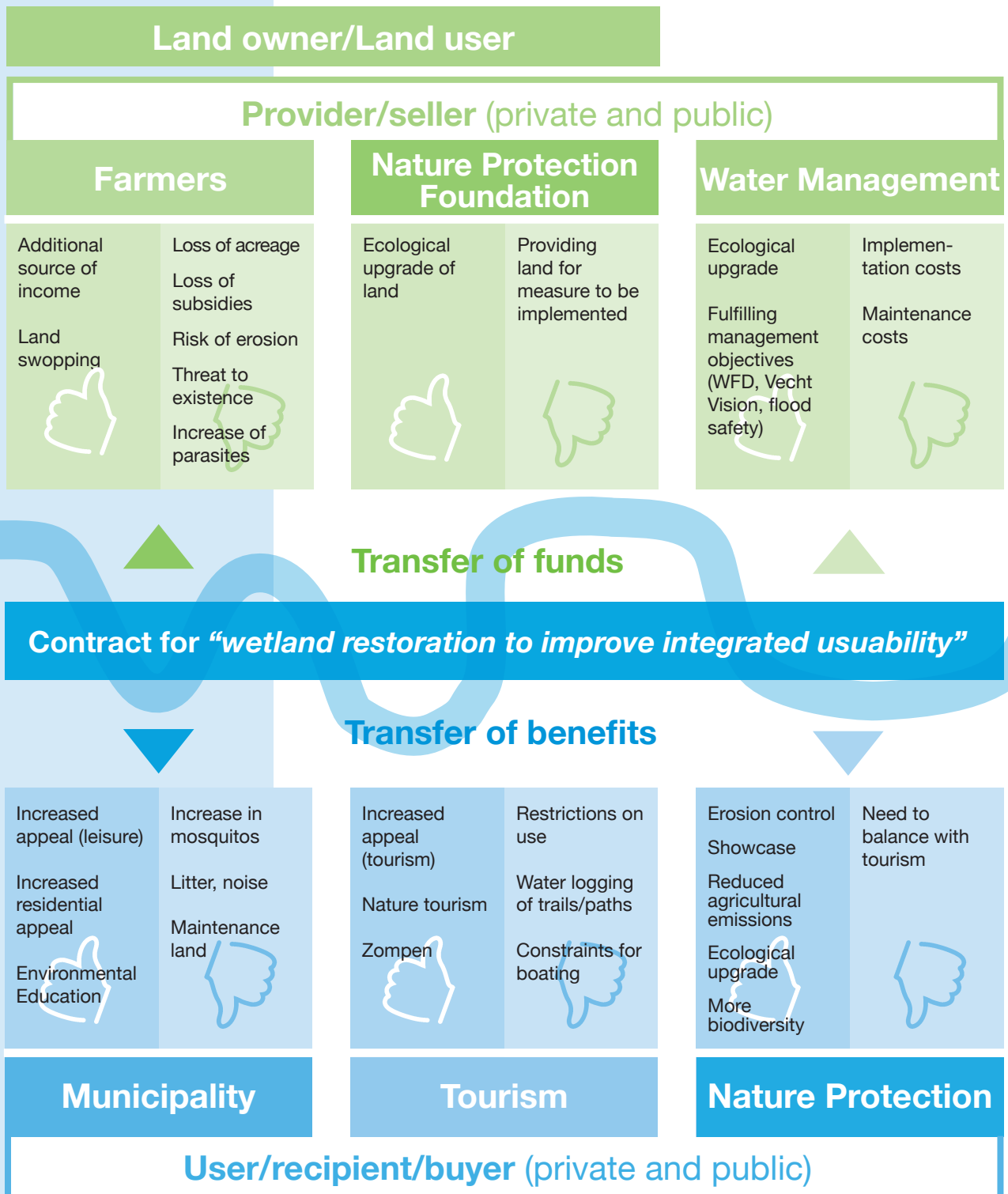
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Dienstleistungen

Scheme for Payments for Ecosystem Services



Cooperation

Improving regional cooperation and financial support for river restoration measures

Regional water managers design and implement Water Framework Directive (WFD) river restoration measures, such as floodplain restoration, in good cooperation with regional stakeholders. An innovative approach to supporting this cooperation in the design process and financing of measures involves focusing on the Ecosystem Services provided by river systems.

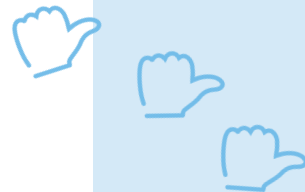
In an Ecosystem Services Approach¹, the benefits of river restoration are made concrete and therefore understandable for stakeholders from different fields and levels of expertise. The structured analysis helps to identify the beneficiaries of measures and the conditions that will allow for the realisation of potential positive and negative effects.

¹ Ecosystem Services provide benefits for society. For example, ecosystems retain water in flood plains and therefore protect the public against floods. Ecosystem Services can be assessed by determining which services are provided by a particular ecosystem, and how they may change due to an intervention.

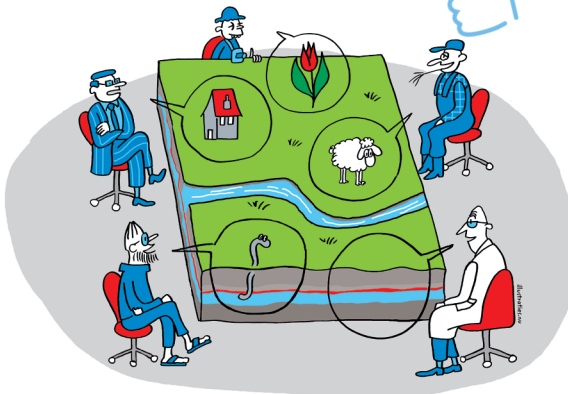
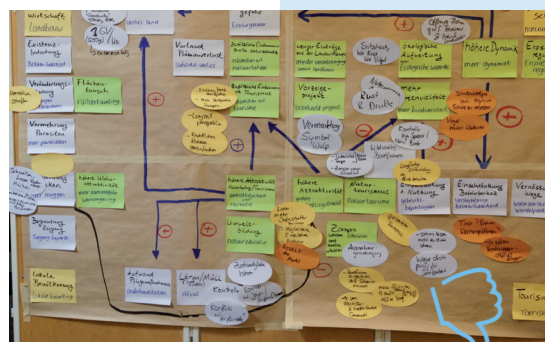


Draft sketch of the transboundary floodplain restoration measure for the Vecht River between Laar (Germany) and Hardenberg (the Netherlands).

Draft provided by water authority Vechtstromen, August 2013.



Specifying effects on Ecosystem Services and related stakeholders: results of the stakeholder assessment



Negotiating about the optimisation of costs and benefits

Cartoon: Cunera Joosten, Amsterdam

Experience

Experience with the Ecosystem Services Approach for river restoration: pilot study in the Vecht river basin

In a trans-boundary section of the Vecht river (Germany and the Netherlands), water managers from the Vechtstromen water board, Vechteverband and Landkreis Graftschaft Bentheim, working together with regional stakeholders from different sectors, experimented with the Ecosystem Services Approach. In parallel with the usual regional planning process for a floodplain restoration measure, they made a joint assessment of the costs and benefits, using the draft design of the measure as a basis for

discussion. The assessment consisted of individual stakeholder interviews, workshops with these stakeholders and additional research by experts. The stakeholders also engaged in simulated negotiations to determine which of them would be – hypothetically – willing to contribute to the implementation of the measure by providing funds. To enable a realistic assessment of costs and benefits, the water managers decided to share the preliminary design for the floodplain restoration measures with the stakeholders. The stakeholders very much appreciated being informed about the draft design early in the planning process.

Stakeholders' evaluation

Question to the workshop participants: Do you agree with the following statement?	No of Respondents		
	Yes	No	Un-clear
The interaction (workshops, interviews) was very helpful in improving my understanding of the measure and the planning process.	15	0	1
More stakeholders should have been involved.	8	4	4
A very comprehensive overview was developed of the impact of floodplain restoration.	9	6	1
Too much time was needed from the stakeholders.	0	11	5
This approach should be followed in similar planning processes	14	2	0
The diagram on costs and benefits could be helpful, for example in identifying the need for dialogue.	12	1	3
It would have been important to put "more numbers" to the costs and benefits. A more detailed specification of value and importance would have been necessary to use the project results.	13	2	1
Interesting information was identified about how to optimise costs and benefits.	12	1	3
Nothing new came out of the project.	0	13	3
The costs of floodplain restoration should be shared between all stakeholders, not only covered by water management.	7	6	3
Balancing costs and benefits with a payment arrangement looks like an appropriate approach in our case study.	11	2	3

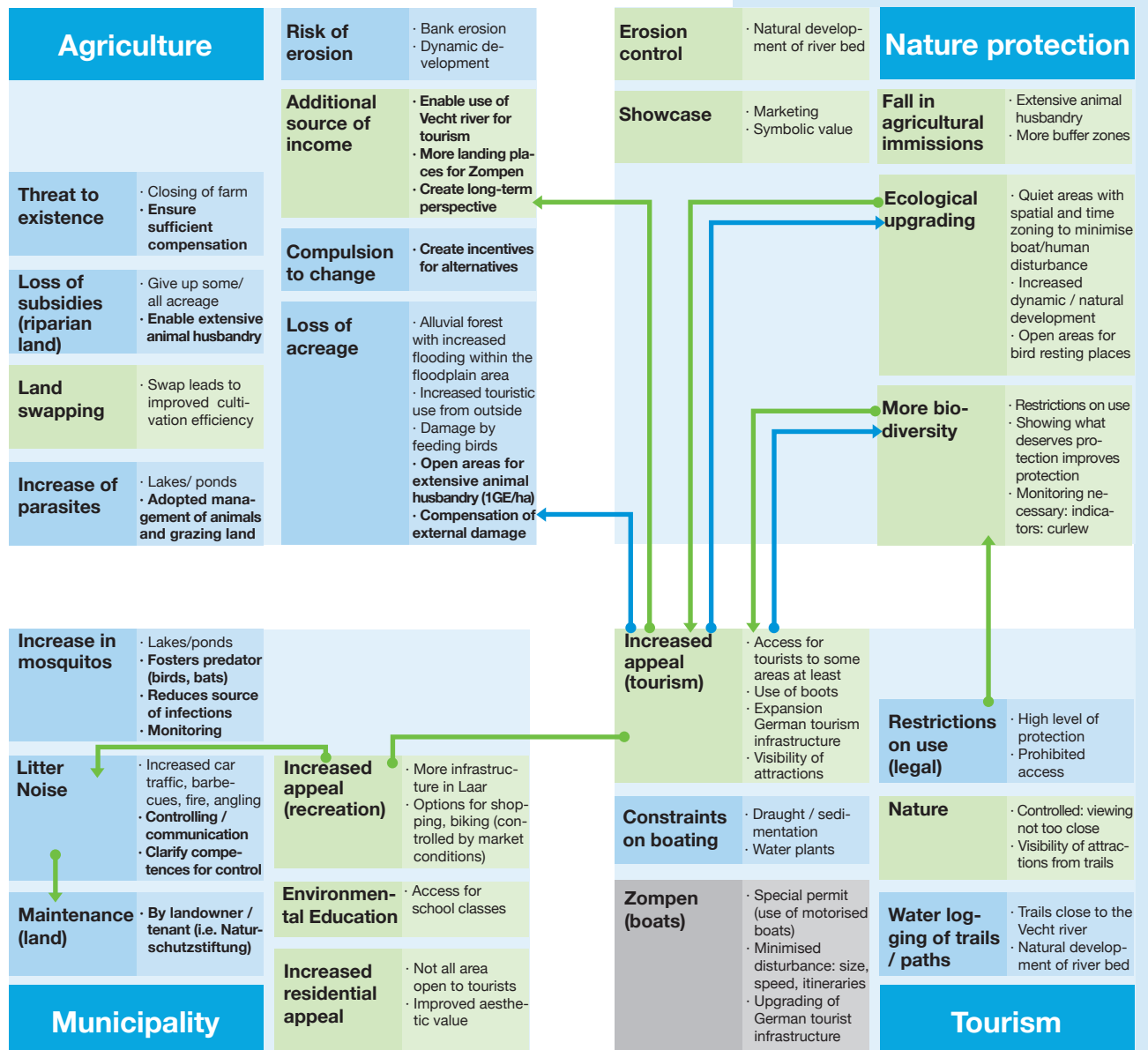
Results of the simulated negotiation

In the simulated negotiation, additional funding was offered only by those stakeholders who

- expected the measure to produce specific benefits for their interest group;
- believed that their interests were not at risk due to the measure; and
- assumed that the measure provided an additional benefit that they would not obtain if the measure were not implemented.

In our experiment, the stakeholders who offered support were representatives of the local Dutch and German municipalities. Nature conservation representatives were prepared to support the measure only if final plans were to take the conflict between nature protection and tourism into consideration appropriately. In other words, they were unwilling to countenance a negative impact on flora and fauna by the expected increase in tourism. Representatives from the tourism sector thought the benefits were too uncertain and too insignificant for them and they were therefore unwilling to contribute.

Costs (blue boxes) and benefits (green boxes) of the wetland restoration for non-water management stakeholders. The bold text in the boxes indicates options how costs could be reduced. Arrows indicate the needs for negotiating trade-offs. For more details see Borowski et al. 2014.



Key insights

Key insights from our experiment with the Vecht River:

Even without an intensive quantification and valuation of ecosystem services (ES), it proved possible to elicit 'trade-offs': it was clear to the stakeholders involved who would benefit from, and who would bear the cost burden for, the river restoration measures and in which circumstances.

The clearer these benefits were and for whom, the easier it proved to find potential buyers: stakeholders willing to Pay for ES (PES) from which they specifically benefit. In our case, the local municipalities involved were the principal potential buyers.

On the other hand: when there was uncertainty about the spatial and time scale for ES benefits, it proved more difficult to find buyers. In our case, reluctance was found in particular among potential buyers from the tourism sector.

In river restoration, a single stakeholder can be both a 'seller' (or an 'enabler') and a 'buyer' of ES. In our case, this double role was a feature of regional water authorities and nature conservation organisations in particular.

In our case, the river will be restored anyhow by the water authorities. This made it more difficult to identify additional ES buyers because they will receive most of the benefits, even if they turn down a role as 'buyers'.

The stakeholders in our case greatly appreciated the possibility of getting involved and exerting influence on the ongoing planning process. The use of the ES approach facilitated their participation.

In our case, the pace of our experiment was dictated by the pace of the ongoing policy process. This was also very much appreciated by, and facilitated, the participation of the stakeholders;

In our case, the local stakeholders were not very enthusiastic about the Ecosystem Services 'CO₂ sequestration' and 'nutrient retention'. The scale was considered too small to deliver significant contributions here. Accordingly, the challenge for organisations committed to achieving policy objectives in this area will be to find ways of aggregating many 'small scales' in order to meet these objectives.

Offer

Implementing the Ecosystem Services Approach in your region:

We offer the following to water authorities/ regional water management organisations that also want to implement or experiment with the Ecosystem Services Approach:

Tools that support a structured analysis of how Ecosystem Services are affected by river restoration (interview method, stepwise process guidelines, workshop methods, overview on Ecosystem Services etc.);

The experience and lessons learnt from this Vecht case experiment and other national and international Ecosystem Services assessments that we conducted;

The facilitation of a highly interactive and participatory 'learning-by-doing' approach to the implementation of the Ecosystem Services Approach, adapted to your specific context.



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Participation

- Individual interviews
- Group workshops
- Negotiation processes

Analysis

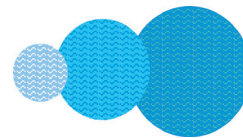
- Aimed and unintended impacts of river restoration
- Costs and benefits
- Reality check
 - conditions for costs and benefits to occur
 - beneficiaries

Visualisation

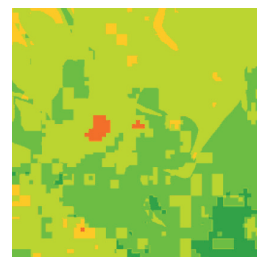
For successful communication

Measure	Effect	Ecosystem service effect		Society
Natural profile, meandering	High discharge buffer	+ Water regulation		Protect flooding downs
	Variation habitat parameters		+ Habitats and biodiversity	Biodiv Nature Recre
Benefits for ...	Agriculture (farmers)	Recreation (vacationers and business owners)	Nature (nature conservationists and vacationers)	
ES ↓				
Landscape value	0	+		0
Water regulation	+	Q/+		+
Agricultural production	++	0	Q/+/-	
Biodiversity	+/-	+		++

Mindmaps and tables



Figures



Maps

Contact

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Interessen Im Fluss provides facilitation and conflict resolution for your planning process and project development.

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References:

Borowski-Maaser, I.; Sauer, U.; Cortekar, J.; van der Meulen, S. (2014): Final Report (DII.6 – V13) on *Phase II of an ecosystem services project in the Vecht basin: Developing a proposal for a regional scheme on payments for ecosystem services*.

More information is available at www.interessen-im-fluss.de and <http://kennisonline.deltares.nl/>

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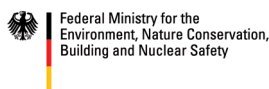
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