



# outline

- (1) key features of the conceptual framework
- (2) stepwise implementation
- (3) results / experiences
- (4) importance of using a participatory approach



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## key features of the conceptual framework

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- (1) evaluating the performance of AE schemes against both generic, European-wide and locally-specific objectives: common / generic structure & regionally adaptive
- (2) multidimensional, multi-criteria based using indicators; farm-level
- (3) intuitive, carefully structured, systematic ... allows coping with complexity
- (4) transparent, facilitating consultation
- (5) manageable resource demand

# stepwise implementation

**Step  
1**

**set the scope of the evaluation**

**Step  
2**

**identify environmental concerns and ways to deal with them  
(Assessment Criteria Matrix)**

**Step  
3**

**assign weights to the environmental concerns & ways to deal with  
them according to their relative importance**

**Step  
4**

**identify farm-level indicators for the environmental concerns**

**Step  
5**

**determine weight of the indicators**

**Step  
6**

**compile farm-level indicator data**

**Step  
7**

**convert indicator values to scores (standardize)**

**Step  
8**

**calculate the AFI (option: conduct a sensitivity analysis)**

**Step  
9**

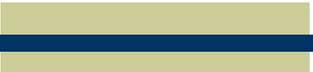
**consultation: discuss results, conclusions, implications**



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# step 1: set the scope of the evaluation (framing)

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- ◆ context & objectives / type of evaluation
  - AES objective-oriented
  - wider environmental evaluation
- ◆ time frame
  - snap-shot, annual, start & end of policy implementation
- ◆ spatial scale
- ◆ sampling strategy
- ◆ comparisons
  - participating vs. non-participating farms
  - comparison to a baseline



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## step 2: identify environmental concerns & ways to deal with them

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- ◆ environmental concerns
  - Natural Resources (NR)
  - Biodiversity (B)
  - Landscape (L)
  
- ◆ ways to deal with them
  - Crop & Animal Husbandry (CAH)
  - Physical Farm Infrastructure (PFI)
  - Natural & Cultural Heritage (NCH)

# Assessment Criteria Matrix (ACM)

## AE Issues

management options	NR	B	L	Other
CAH				
PFI				
NCH				



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## other concerns

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- ◆ energy and food supply: energy crops, sustainability of local food supply
- ◆ environmental risk and control: flooding, fire, avalanches
- ◆ climate change: greenhouse gases, land use, irrigation

## steps 3 & 5: assign weights

Natural Resources	Biodiversity	Landscape
0.25	0.25	0.50

$\Sigma 1$

	Natural Resources	Biodiversity	Landscape
Crop & Animal Husbandry	0.7	0.33	0.4
Physical Farm Infrastructure	0.2	0.33	0.4
Natural & Cultural Heritage	0.1	0.33	0.2
Totals	$\Sigma 1$	$\Sigma 1$	$\Sigma 1$

	NR	B	L
CAH	<ul style="list-style-type: none"> <li>◆ Soil quality protected</li> <li>◆ Soil physical resource protected</li> <li>◆ Groundwater quality protected</li> <li>◆ Air quality protected</li> </ul>	<ul style="list-style-type: none"> <li>◆ Habitats provided for wildlife associated with arable land</li> <li>◆ Maintenance of extensive grassland systems</li> </ul>	<ul style="list-style-type: none"> <li>◆ Landscape character protected</li> <li>◆ Maintenance of livestock systems</li> </ul>
PFI	<ul style="list-style-type: none"> <li>◆ Groundwater quality protected</li> </ul>	<ul style="list-style-type: none"> <li>◆ Field boundary habitats protected</li> <li>◆ Effects of large field size mitigated</li> </ul>	<ul style="list-style-type: none"> <li>◆ Hedgerows protected</li> <li>◆ Traditional buildings conserved</li> </ul>
NCH	<ul style="list-style-type: none"> <li>◆ Watercourses protected</li> </ul>	<ul style="list-style-type: none"> <li>◆ Woodland habitats protected</li> </ul>	<ul style="list-style-type: none"> <li>◆ Historic &amp; archaeological features protected</li> </ul>

A single cell from this matrix is termed an AFI “Dimension”

## step 7: convert indicator values to scores (standardize)

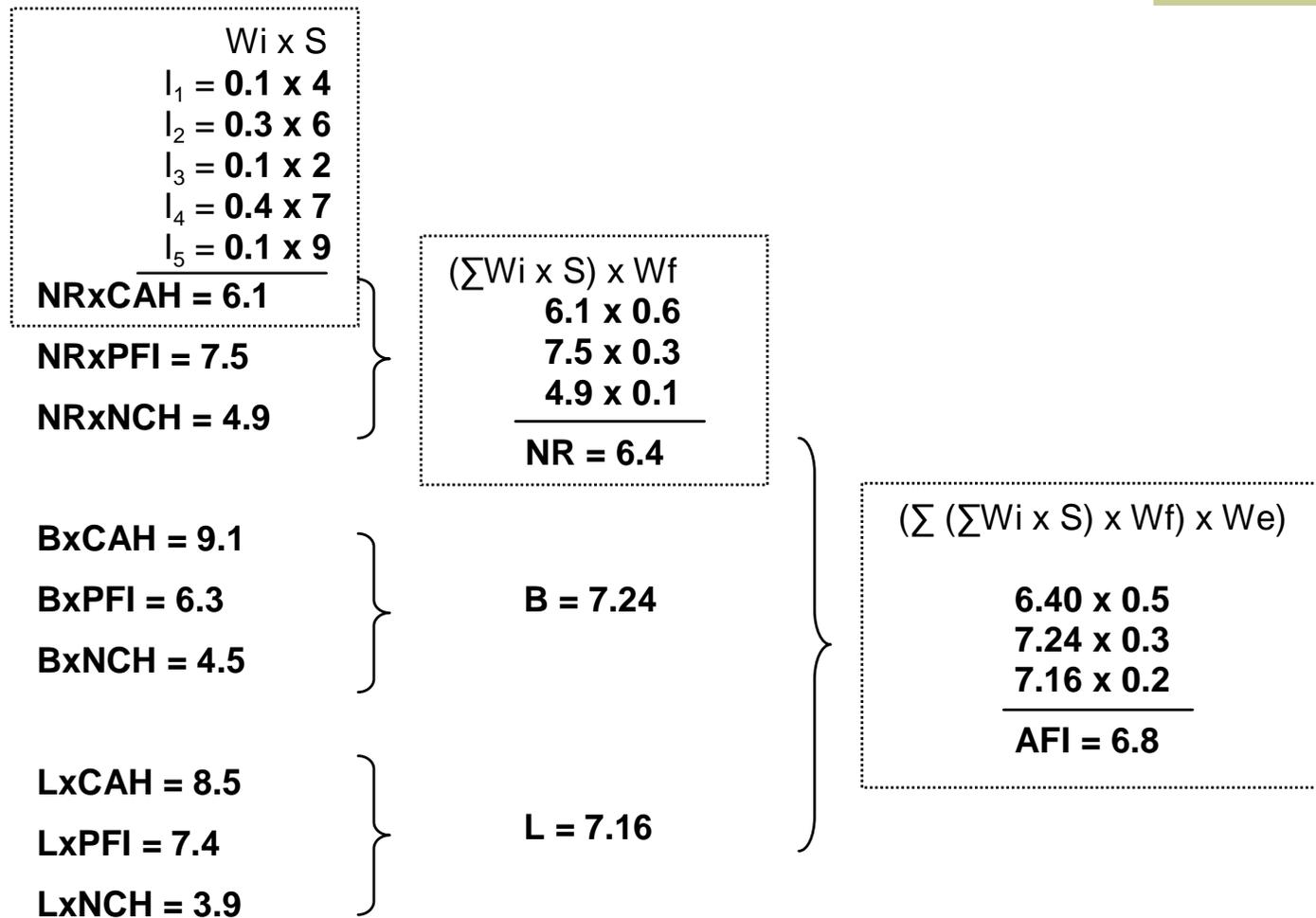
- ◆ linear relationship; non-linear relationship; categorical; binary
- ◆ examples:

<b>LU/ha</b>	>1.8	<=1.8	<=1.4	<=1	<=0.6	<=0.2
<b>Score</b>	0	2	4	6	8	10

<b>2. Frequency of cutting</b>	<b>Score</b>
Annual	2
Left unmanaged	5
Mixture of annual and 2-3 years	6
Every 2-3 years	7
Mixture of 2-3 years and some unmanaged	10



# calculation of index





## results / experiences



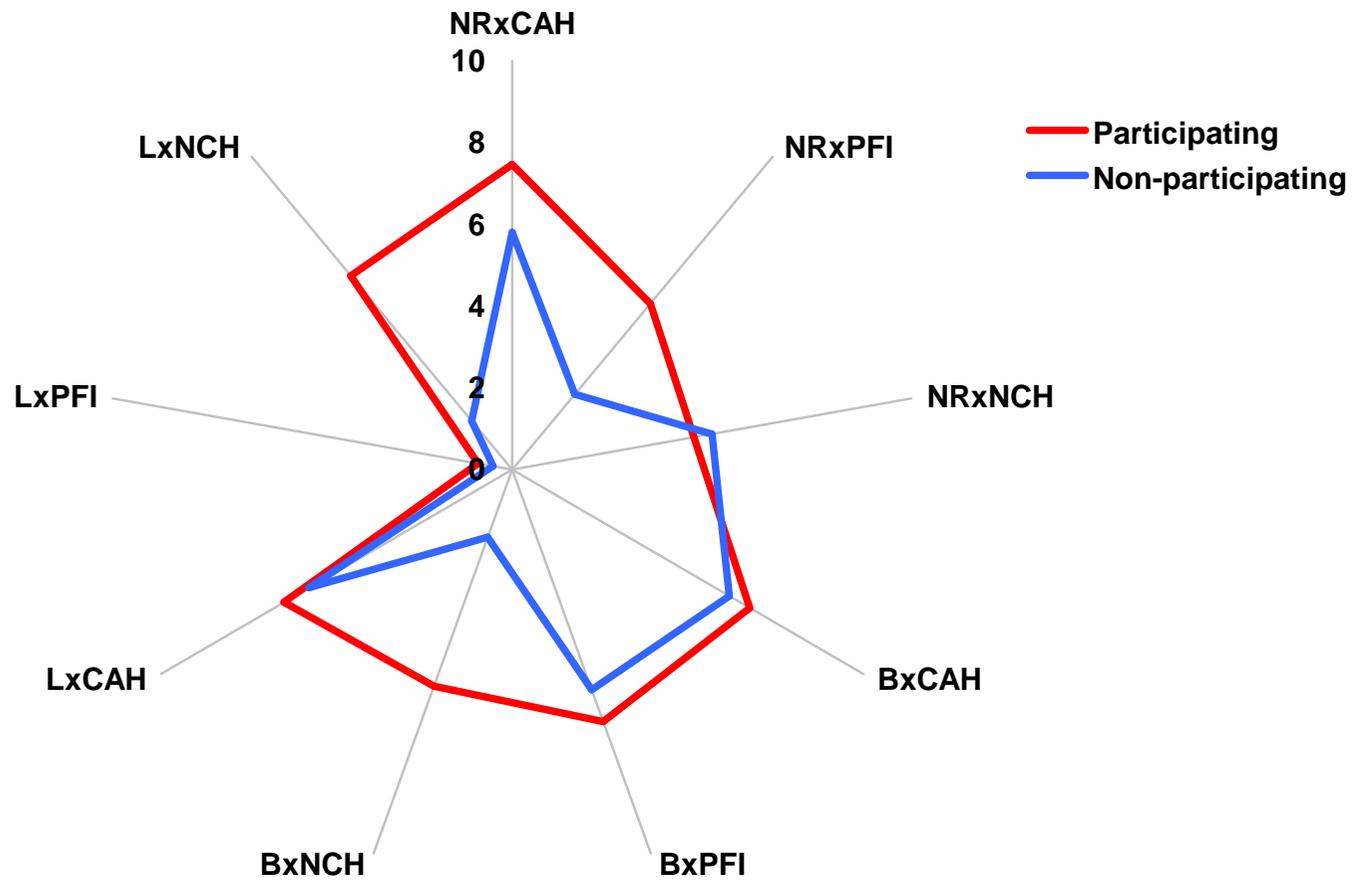
- ◆ 15 case studies  
(UK, IRL, HUN, DK, GR, FIN, DE)
  - used in wide range of geographic locations
  - different environmental issues
  - main AFI steps applied in each case
- ◆ some adjustments of approaches used within each step

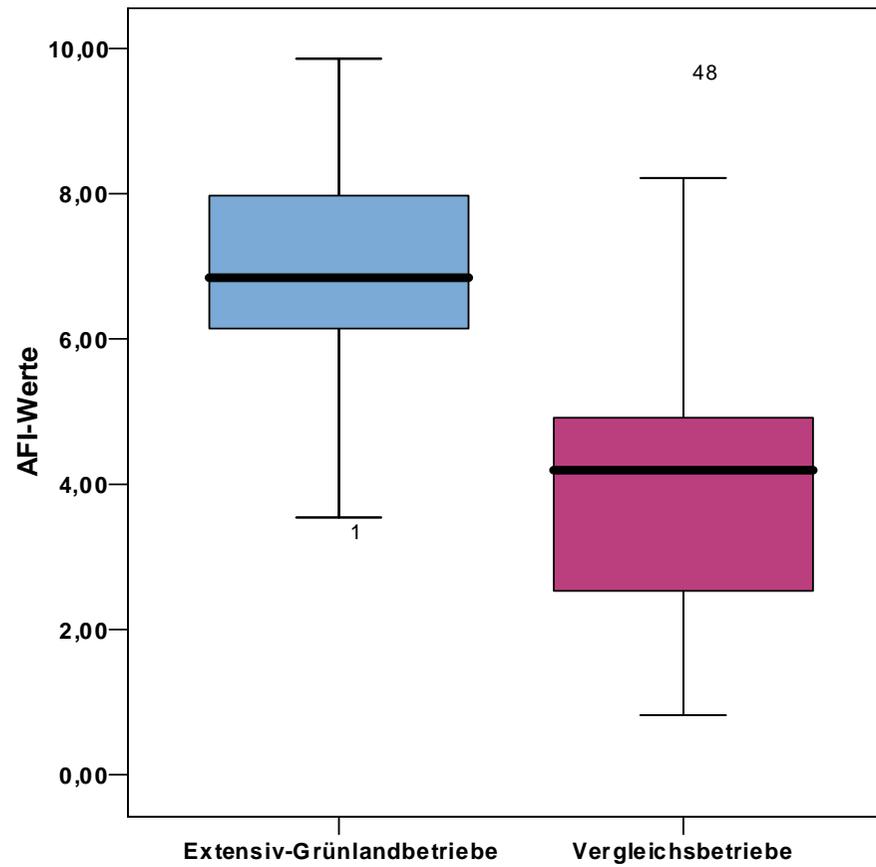


...

- ◆ AFI has been successfully adapted in each case study
  - broad steps are generic
  - context specific adaptations within each step can be agreed upon

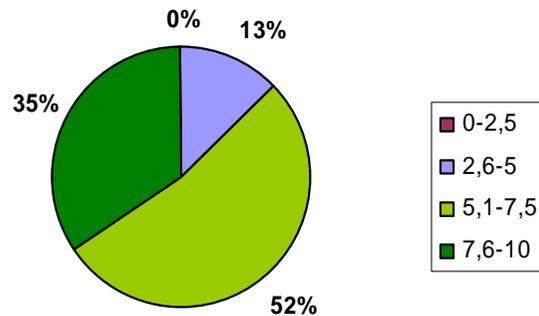
# presentation of results



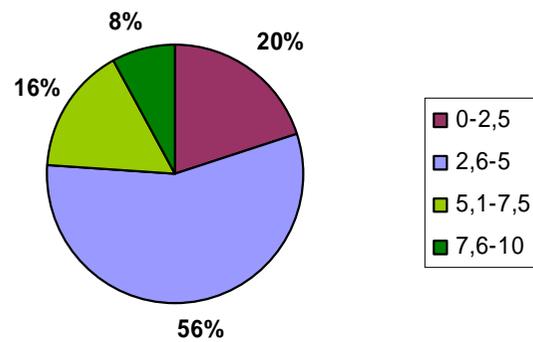


	MIN	MAX	mean	no. of farms
extensification of grassland	3,37	9,85	6,86	23
non-participants	0,84	9,67	4,21	25

**Extensiv-Grünlandbetriebe: Verteilung auf AFI-Bereiche**



**Vergleichsbetriebe: Verteilung auf AFI-Bereiche**



AFI	extensive grassland	non-participants
0-2,5	0	5
2,6-5,0	3	14
5,1-7,5	12	4
7,6-10	8	2



# importance of using a participatory approach



- ◆ engagement of farmers organisations in the decision making process is critically important
  - it forges stronger links between farmer's perception of agri-environmental issues & their awareness of their role as managers of the rural landscape
- ◆ approach can reinforce the use of monitoring, assessment and evaluation for future decisions
  - the AFI can be customised to locally relevant AE targets, public goods issues & circumstances
  - methodological framework is responsive to changing local needs

local actors

evaluators

technical panel

1. set scope of evaluation

2. define ACM

3. agree on ACM  
& assign  
weights

4. select indicators

5. assign weights

6. compile data

7. standardize indicator  
values .... scores

9. discuss results,  
conclusions,  
implications

8. calculate AFI

# principles related to stakeholder engagement



personality & passion .... bureaucratic procedures / guidelines

