

SAF - Measuring & evaluating success

Sustainability indicators - application & examples

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www.baltcoast.net

**A SYSTEM APPROACH FRAMEWORK FOR
COASTAL RESEARCH & MANAGEMENT**



EU OURCOAST Database

>350 best-practice examples of coastal management are collected in the European Commission project OURCOAST database

<http://ec.europa.eu/ourcoast/>

The screenshot shows the top part of the OURCOAST website. At the top left is the European Commission logo, which includes the European Union flag and the text 'European Commission'. To the right of the logo is the word 'ENVIRONMENT' in a blue, sans-serif font. Below this is a dark blue horizontal bar containing the breadcrumb navigation: 'European Commission > Environment > OURCOAST'. Underneath the breadcrumb is a green navigation bar with the following links: 'Home', 'About us', 'Policies' (with a dropdown arrow), 'Funding' (with a dropdown arrow), 'Legal compliance' (with a dropdown arrow), and 'News & outreach' (with a dropdown arrow). Below the navigation bar is a large banner image of a beach with waves crashing. Overlaid on the top left of the banner is the text: 'Exchange of experiences and comparative analysis for Integrated Coastal Zone Management'. In the bottom right corner of the banner, the word 'OURCOAST' is written in large, white, bold letters, with a small European Union flag icon to its right. Below 'OURCOAST' is the text 'ICZM in Europe'.

...but are they really good examples?



Objectives

The indicator-based tool is developed within BONUS project BaltCoast is design to:

- To measure progress towards sustainable development in coastal and marine areas
- To assess the success of different ICZM initiatives and/or SAF application

This methodology can be a tool for the **improvement** of different ICZM projects or initiatives because it helps **to identify strengths and weaknesses** of ICZM initiatives and their **contribution to sustainable development**.

Tools & Integration → Evaluation Tool

→ <http://www.baltcoast.net/indicators.html>



Study Method

Review of existing indicator-based assessment methodologies

Indicator selection process based on criteria and checklist creation

Pre-assessment using the checklist and analysis of results

Desk-review, discussion, revision and creation of tailor-made indicators

Creation of ICZM best practice evaluation tool including final indicator set

The process of developing Indicators Set that are tailored to evaluate success of ICZM initiative

Thematic criteria

- Relevance to ICZM
- Relevance to sustainability (Environmental Quality, Economics, Social Well-being)
- Indicator robustness
- Suitable to measure changes

Technical criteria

- Availability of data
- Quality of datasets
- Ability to be scored



Indicator-based ICZM Evaluation Tool (1)

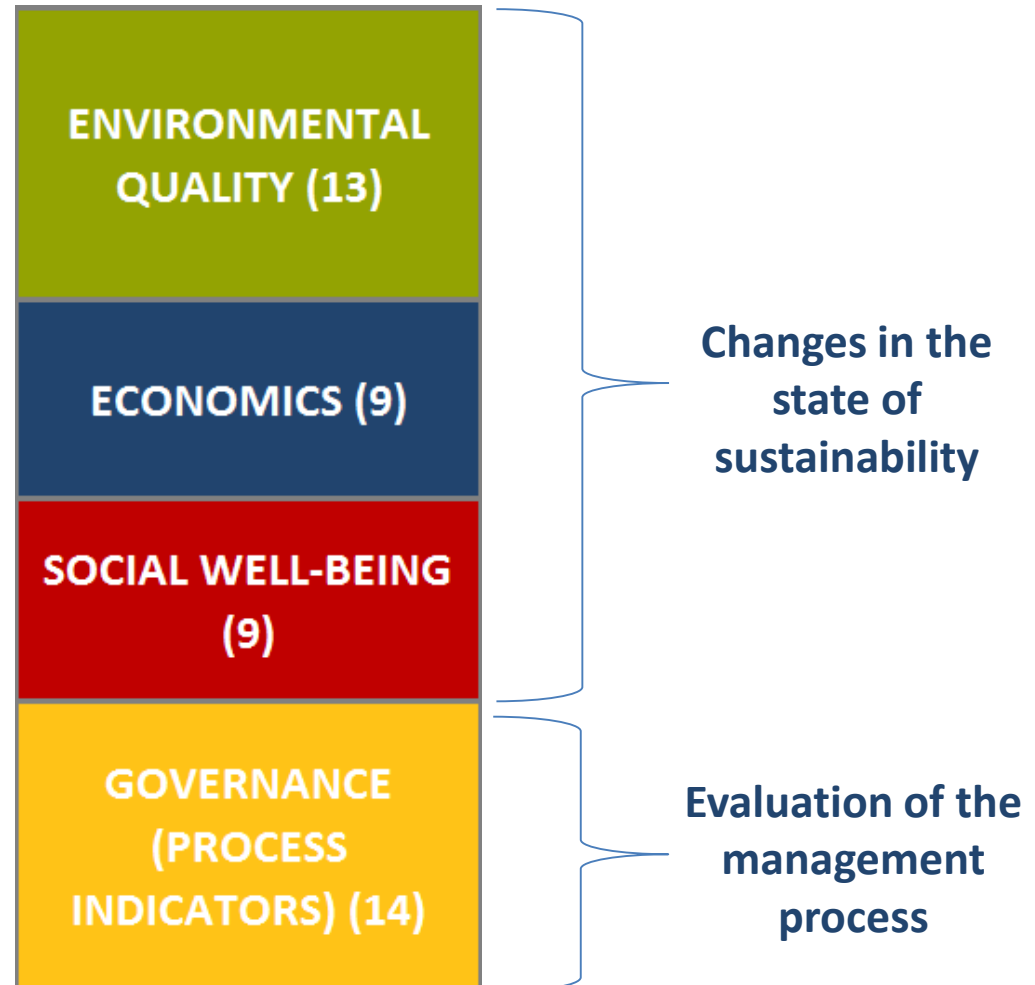
- The indicator set consists of a set of **45 indicators** that are grouped into the **four categories** :

Air, water and land pollution, biodiversity and natural resources management, change at the coast, energy and climate change, land use

Economic opportunity, economic performance, energy and climate change

Equity, education and training, local and cultural identity

Management (policies, guidance, processes and decisions)





Indicator-based ICZM Evaluation Tool (2)

Indicator-based ICZM 'Best-practice' Evaluation Tool 2016 [Compatibility Mode] - Excel

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW

Cut Copy Paste Format Painter Clipboard

Arial 10 Font Wrap Text Merge & Center Alignment

General Number Conditional Formatting Table Styles

Excel Built-in ... Normal Bad Good Neutral Calculation

Insert Delete Cell

AA49

A B C D E F G H I J K L M N O P Q R S T U V W



INDICATOR-BASED ICZM 'BEST-PRACTICE' EVALUATION TOOL

The Tool is designed to evaluate the success of different Integrated Coastal Zone Management (ICZM) initiatives from sustainability point of view (environmental quality, economics, social well-being, governance).

Please identify the best-practice example of ICZM for the application:
 Please identify the area of application (provide the map and pictures).

EXPLANATORY NOTE: Please follow the arrows (→)

→ The indicator set consists of a set of 45 indicators that are grouped into the four categories **Environmental Quality (13)**, **Economics (9)**, **Social Well-Being (9)** and **Governance (Process Indicators) (14)**.

→ **Environmental Quality, Economics, Social Well-Being** indicators needs to be scored on a scale from -3 to 3 (see scoring scale below).



→ Only one score can be given for each indicator. Please read the brief description that is provided for each indicator carefully. Please choose the most suitable answer and indicate it by typing the corresponding number in the white field below (see example below).

| Indicator Description | Please indicate on a scale from -3 to 3 and clarify with examples | No, strong negative effects | No, considerable negative effects | No, weak negative effects | No changes | Yes, weak positive effects | Yes, considerable positive effects | Yes, strong positive effects | No Data |
|---|---|-----------------------------|-----------------------------------|---------------------------|------------|----------------------------|------------------------------------|------------------------------|---------|
| | | -3 | -2 | -1 | 0 | 1 | 2 | 3 | X |
| 1. The best-practice reduces environmental risks and prevents air, water and soil pollution | Please indicate on a scale from -3 to 3 and clarify with examples | | | | | | | | |
| 2. The best-practice improves the status of water (ecological and chemical) | Please indicate on a scale from -3 to 3 and clarify with examples | | | | | | | | |
| 3. The best-practice supports policy and system to conserve key natural sites (including marine and nature scenic, cultural, and wild landscapes) | Please indicate on a scale from -3 to 3 and clarify with examples | | | | | | | | |

→ **Governance (Process) Indicators** needs to be scored on scale from 0 to 4 (see example below).

| Indicator Description | Please indicate on a scale from 0 to 4 and clarify with examples | No, not at all | Yes, slightly | Yes, moderately | Yes | Yes, fully | No Data |
|--|--|----------------|---------------|-----------------|-----|------------|---------|
| | | 0 | 1 | 2 | 3 | 4 | X |
| 1. A management team with broad competences and sufficient representation was built to lead the planning process | Please indicate on a scale from 0 to 4 and clarify with examples | | | | | | |

Please upload the map of the area and pictures in this box:



Indicator-based ICZM Evaluation Tool (3)

- Sustainability Indicators need to be scored on scale from -3 to 3:



- Governance (Process) Indicators needs to be scored on scale from 0 to 4:

| | | | | | | |
|--|--|-----------------------|----------------------|------------------------|------------|-------------------|
| 9. There was a strategy for the issues of missing data and uncertainty in implementation process | Please indicate on a scale from 0 to 4 and clarify with examples | No, not at all | Yes, slightly | Yes, moderately | Yes | Yes, fully |
| | | 0 | 1 | 2 | 3 | 4 |
| | | | | | 3 | |



Indicator-based ICZM Evaluation Tool (4)

The Scoring of Indicators main steps:

1. To find data relating to the indicators
2. To score the indicators based upon the data

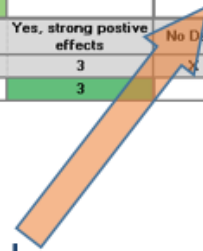
| INDICATOR | DESCRIPTION | SCORING RANGES | | | | | | | | INDICATOR SCORE |
|--|---|-----------------------------|-----------------------------------|---------------------------|------------|----------------------------|------------------------------------|------------------------------|---------|-----------------|
| | | No, strong negative effects | No, considerable negative effects | No, weak negative effects | No changes | Yes, weak positive effects | Yes, considerable positive effects | Yes, strong positive effects | No Data | |
| 1. The best-practice effects financial policies and instruments to support economic stability and resilience | Please indicate on a scale from -3 to 3 and clarify with examples | -3 | -2 | -1 | 0 | 1 | 2 | 3 | X | 1.50 |
| 2. The best-practice increases economic diversification | Please indicate on a scale from -3 to 3 and clarify with examples | -3 | -2 | -1 | 0 | 1 | 2 | 3 | X | |
| 3. The best-practice ensures an acceptable employment and training opportunities for local residents | Please indicate on a scale from -3 to 3 and clarify with examples | -3 | -2 | -1 | 0 | 1 | 2 | 3 | X | |
| 4. The best-practice increases payments and investments in coastal management | Please indicate on a scale from -3 to 3 and clarify with examples | -3 | -2 | -1 | 0 | 1 | 2 | 3 | X | |



To fill in specification for each answered indicator in "Comments" cell

The score is indicated by the scoring bar under the scoring ranges

If no data is available, then need 'X' needs to be typed under the "No data" cell



The total indicator score will be automatically calculated



Coastal Management Best-practices examples

Restoration of important habitats through sustainable agricultural practices, Rusne (Lithuania)

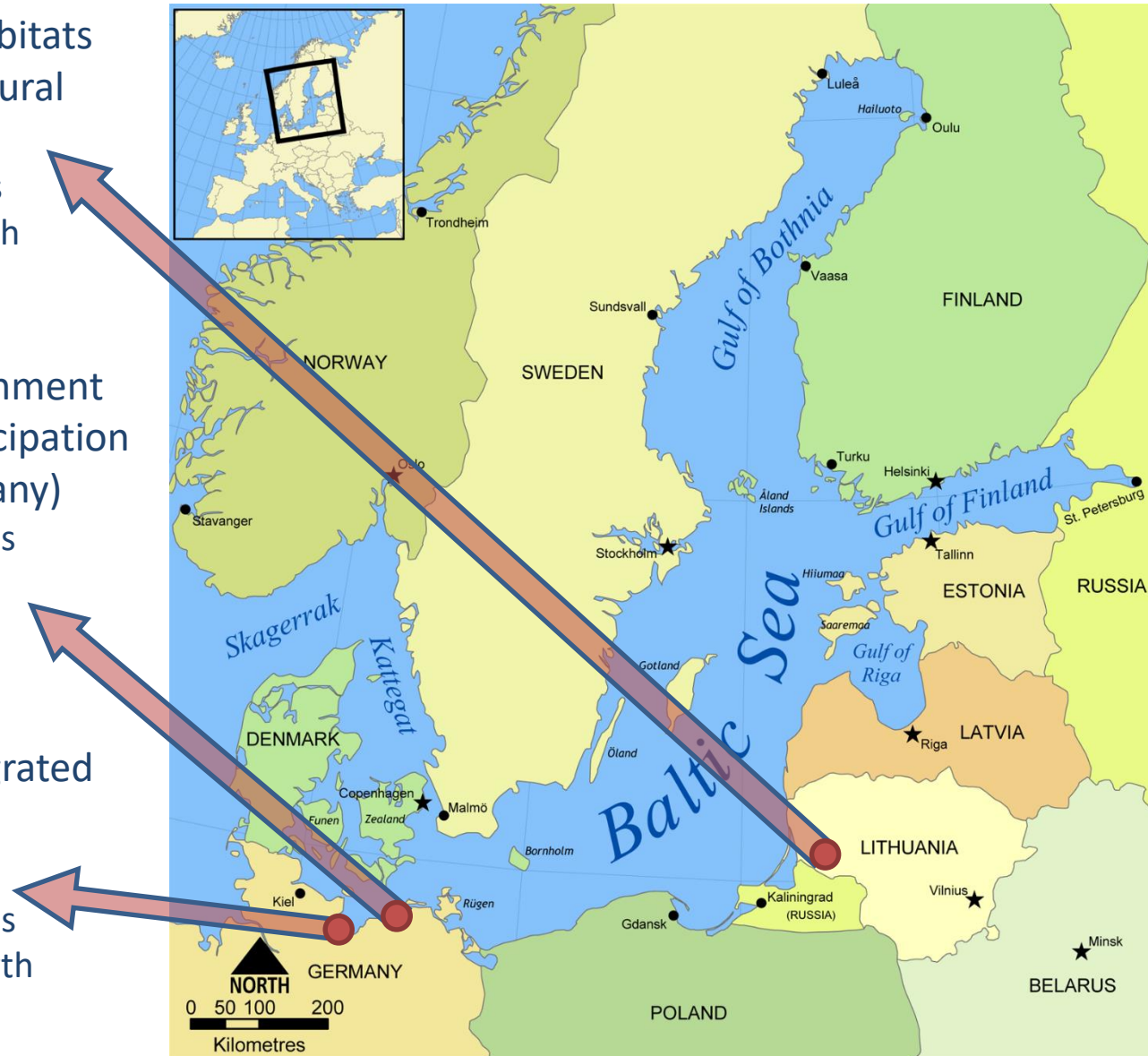
- Sustainable use of resources
- Sustainable economic growth

Coastal protection & realignment and the role of public participation in Markgrafenhaide (Germany)

- Sustainable use of resources
- Adaptation to risk

Public Participation in Integrated Flood Risk Management in Timmendorf (Germany)

- Sustainable use of resources
- Sustainable economic growth





Restoration of important habitats through sustainable agricultural practices, Rusne

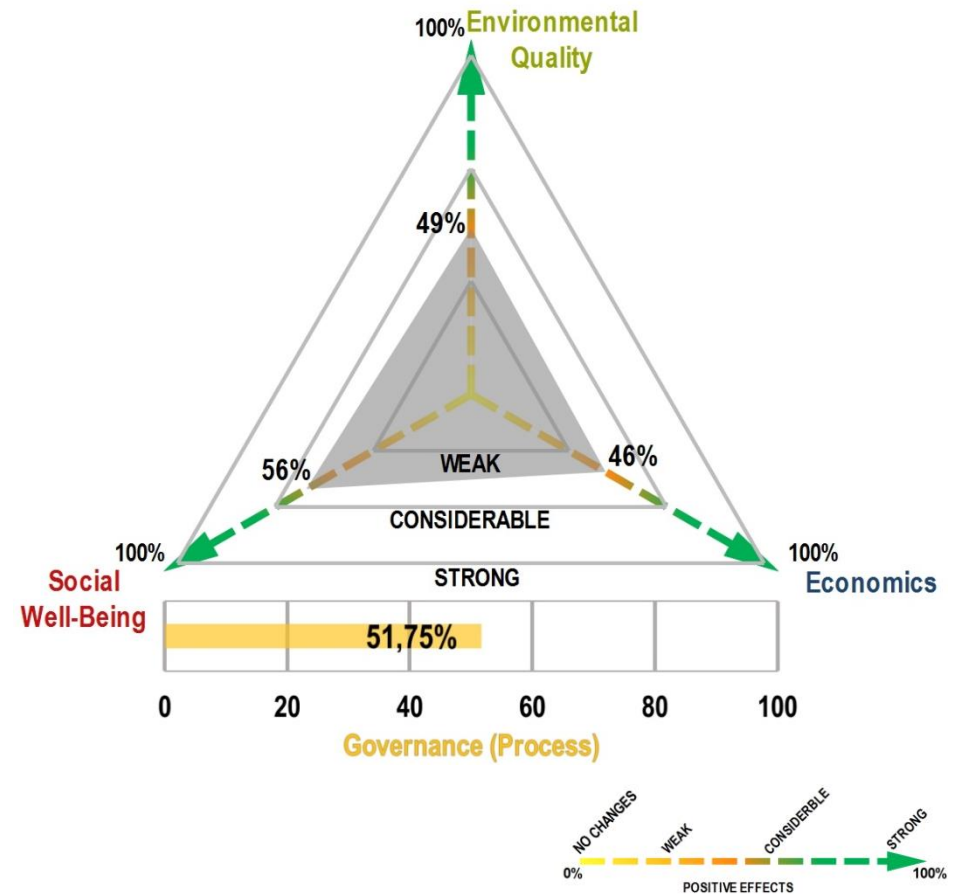
- Beginning of the 90's, almost **all grasslands were abandoned**
- They became **overgrown with scrub and reeds**
- **Unsuitable as feeding and breeding habitat** for most of the birds
- **Low agriculture** activity was followed by degradation of grasslands
- The dual purpose **was to improve the local economy and make the grasslands more suitable for breeding and migratory birds**
- Other objectives **were to promote environmental/ecological education** within the local population;
- and **to develop ecotourism**





Restoration of important habitats through sustainable agricultural practices, Rusne (Lithuania)

- Effects **land use planning** and management,
- Supports **environmentally friendly rural activities**
- Supports **natural habitats**, biodiversity and their quality
- Promotes **environmentally-friendly processes and products**
- **Increases investments in coastal management**
- Increases low-impact tourism
- Increases productivity and use of **sustainable agriculture**
- A management team **was fully built** to lead the planning process
- The implementation process had some shortcomings



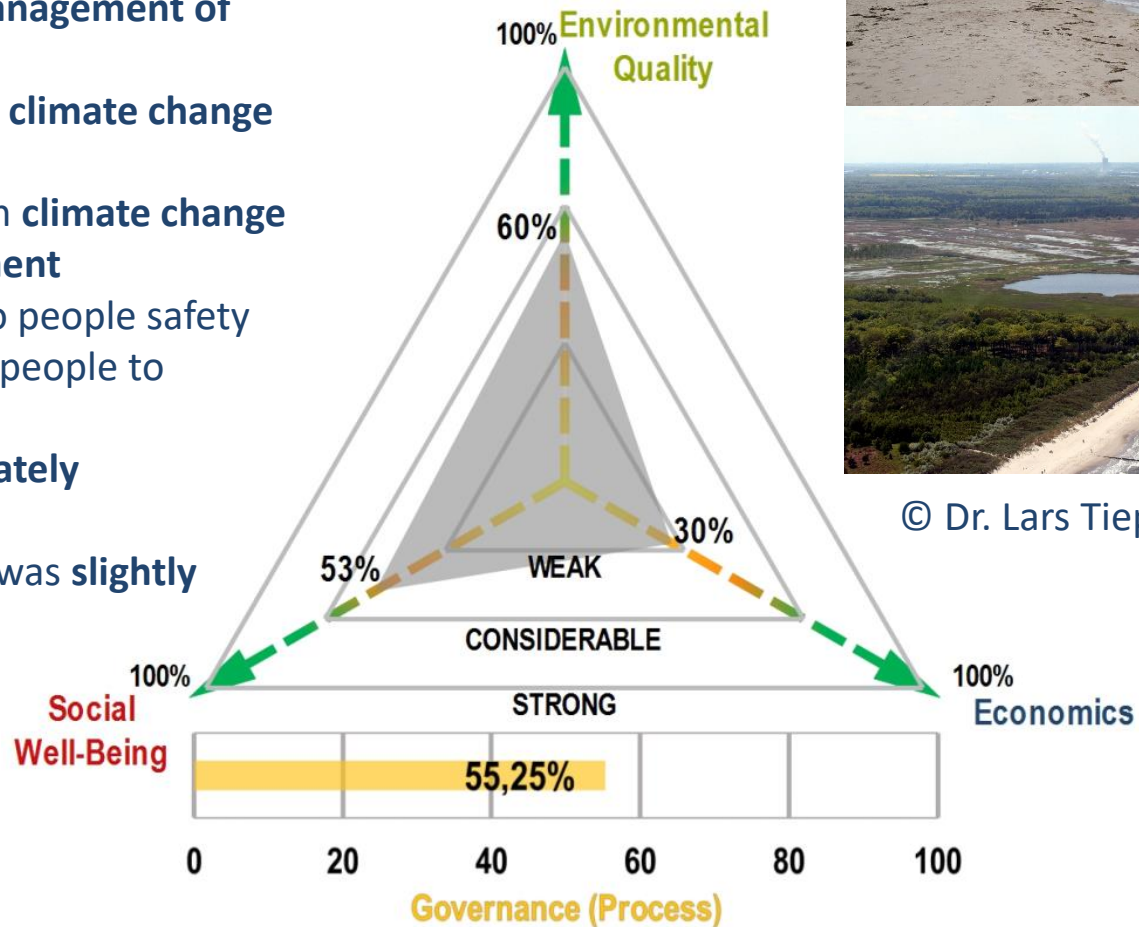
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Coastal protection & realignment and the role of public participation in Markgrafenhaide (Germany)

- Promotes flood prevention, protection and mitigation
- Supports natural habitats, biodiversity and their quality
- Improves sustainable management of coastal erosion
- Reduces vulnerability to climate change impacts
- Increases investments on climate change and flood risk management
- Increases contribution to people safety
- Reduces vulnerability of people to climate change
- The concept was moderately implemented
- The success of measure was slightly evaluated

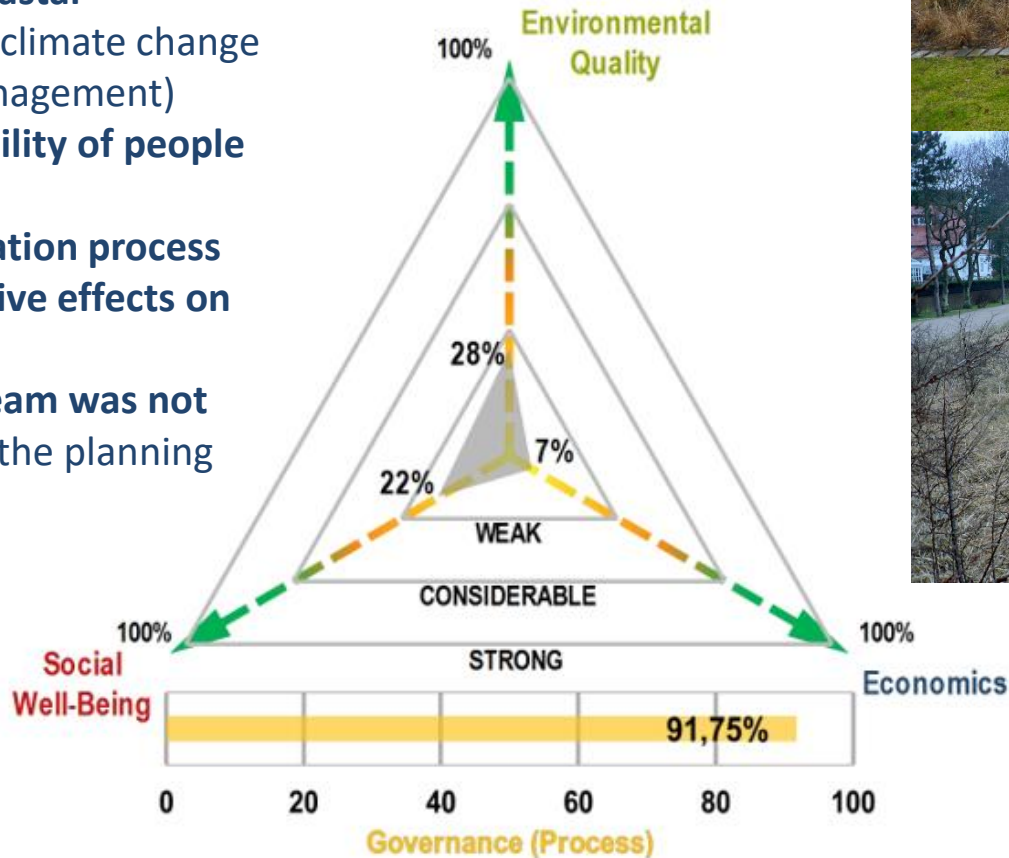


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Public Participation in Integrated Flood Risk Management in Timmendorf (Germany)

- Promotes flood prevention, protection and mitigation
- Increases the resilience and **reduces vulnerability to climate change impacts**
- Increases payments and **investments in coastal management** (on climate change and flood risk management)
- **Reduces vulnerability of people to climate change**
- **Good implementation process**
- Some weak **negative effects on tourism**
- **A management team was not fully built** to lead the planning process



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Conclusions

- Helps to **identify strengths and weaknesses** of ICZM initiatives and their **contribution to sustainable development**
- **Raise awareness** of aspects that makes measures more efficient
- This methodology can be a tool for the **improvement** of different ICZM projects or initiatives

Future Steps

- Further development of the Tool
- Indicators need to be developed in order to describe ecosystem services, the benefits they provide, the ecological functions that they deliver and the interrelationships between them

Thank You!

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