



**WG ICZM**

**First Meeting**

**Wilhelmshaven, 6 September 2006**

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**Agenda Item:** 4

**Subject:** Sustainability indicators

**Document Nr.** ICZM-1-4.2

**Date:** 29 August 2006

**Submitted by:** Secretariat

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**Proposal:** The meeting is invited to discuss the document

## Introduction

The central goal of the WSF is to contribute to sustainable development in the Wadden Sea Region. As a first step, WSF has elaborated sustainability objectives (see Annex 1) and general and sector-specific strategies (Breaking the Ice) for achieving these objectives.

In order to be able to measure the actual status of sustainable development, as well as progress in achieving the objectives, indicators are necessary.

In the past decade several sustainability indicator concepts have been developed. In the following a brief overview of these concepts is given, as well as proposals how to formulate indicators for the Wadden Sea Region. (For a more comprehensive overview of sustainability and sustainability indicators, see WSF report No.4: "Sustainable development strategy for the Wadden Sea Region". All WSF reports can be downloaded from [www.waddensea-forum.org/archive](http://www.waddensea-forum.org/archive)).

## Sustainability indicators

Sustainability indicators have been developed at the global, EU, national, regional and local scale. Indicators have been proposed for all three dimensions of sustainability, but also specifically for either one of the three dimensions (ecology, economy, sociology).

(NB. Currently also indicators for measuring status and progress of ICZM are being developed.

These have, of course, a close relationship with sustainability indicators but will not be covered in this document).

Examples of indicators at various levels (Eurostat, UN, OECD, UK) are given in table 1.

*Table.1. Examples of sustainability indicators (From WSF Report No.4)*

Social indicators	Economic indicators	Environmental indicators
<ul style="list-style-type: none"> <li>• Health expenditures per capita</li> <li>• Education expenditures per capita</li> <li>• Education level at the age of 30 years old</li> <li>• Crime rate</li> <li>• Demography and population growth</li> <li>• Accidents at work</li> <li>• Unemployment rate</li> </ul>	<ul style="list-style-type: none"> <li>• GDP per capita</li> <li>• Inflation rate</li> <li>• Business investment in R&amp;D</li> <li>• Industrial production growth</li> <li>• Net state aid to the region</li> <li>• New patents registered</li> <li>• Migration and immigration</li> </ul>	<ul style="list-style-type: none"> <li>• Open space hectare per capita</li> <li>• Forest area hectare per capita</li> <li>• Habitat areas hectare per capita</li> <li>• Threatened species</li> <li>• Volume of transport relative to capita</li> <li>• Share of renewable energy</li> <li>• Total waste</li> <li>• Share of recyclable waste</li> </ul>

Sustainability indicators must have some specific features. Long lists of requirements to indicators have been proposed in different concepts. Of these requirements the following seem most relevant:

- There must be a clear relation with the objective;
- The indicator must be measurable;
- The indicator must be understandable;
- It must be practicable to collect data about the indicator;
- The indicator should have political relevance;
- The indicator must fit into the overall ICZM concept.

### **Wadden Sea Region-specific indicators**

In addition to the above requirements, the indicators must, as far as meaningful and possible, be specific for the Wadden Sea Region. A package of indicators for the Wadden Sea Region will most probably consist of indicators with a more general character (for example unemployment), as well as region-specific indicators (for example harbour statistics or Wadden Sea products). For practical reasons, it must be tried to take already available indicators, for example those developed in national sustainability strategies (see also WSF report No.4), as a starting point for selecting indicators with a more general character.

The socio-economic analyses, carried out by Prognos (WSF report No. 8 “Sector-specific analysis and perspectives for the Wadden Sea Region” and WSF report No. 6 “The Wadden Sea Region: A socio-economic analysis”) may be helpful in identifying and selecting region-specific indicators for the social and economic dimensions of sustainability. Results from the trilateral Lancewad project can be used to fix indicators for cultural history.

The Wadden Sea Quality Status Report (QSR) 2004 provides ample information that can be used for selecting indicators for the quality of the Wadden Sea ecosystem. These must be supplemented with indicators for mainland ecology (for example meadow birds).

### **Proposal**

The meeting is invited to discuss the information and analysis provided above.

It is proposed that the work described above, is being commissioned to a consultant. The meeting is invited to discuss in more detail the terms of reference for the tasks to be carried out, for example on the basis of a further specification of the WSF objectives (Annex 1).

Also, a time frame and the further procedure must be agreed upon.

**Annex 1. WSF sustainability objectives**

<b>ISSUE</b>	<b>OBJECTIVE</b>
<b>OVERALL</b>	
Safety	Safety at sea Safe living conditions and economic development through coastal protection Protection of the landscape and nature against hazards
<b>SOCIAL</b>	
Cultural history	Preserve landscape and culture Trilateral landscape and culture Targets
Demography	Balanced population structure
Education, research & development	Keeping the younger generation in the Region Perspectives for young people
Employment	Safe working environment. High-quality and diversity of employment
Health (physical + mental)	Good provision of medical care Clean environment
Housing	High property rate Sufficient apartments for reasonable price
Lifestyle	Right to the free development of one's life Better than in rest of country
Local engagement	Local citizens are engaged and participate in local activities. Use of local knowledge
Recreation/ attractions for citizens	Agriculture as recreation option Fisheries as recreation option
Regional identity	Feeling proud of being from the Wadden Sea Region. Production in the area Good image sector
Social institutions in rural areas	Availability and accessibility of school, hospitals, commercial institutions (banks, shops, child-care, etc.), also in less densely populated areas
Welfare	Constant or increasing income Social equity Feeling like home (Heimat)

<b>ISSUE</b>	<b>OBJECTIVE</b>
<b>ECONOMIC</b>	
Economic resilience: Maintain and develop economically viable and Region related activities + Use natural opportunities and natural qualities of Region	Economic activities rooted in the Region Complete chain of activities Responsible entrepreneurs: - Innovation - Jobs - Profit Simplification and harmonisation of laws and regulations More added value Energy efficiency and reliability
Harbour	Harbour activities respecting other sector activities Harbour cooperation in the Region
Infrastructure	Optimal accessibility for production and transport
Energy	Stable energy supply
Rural development	Economic vitality
Sea traffic	Better efficiency
Tourism	New tourism enterprises Quality tourism Broadening of spectrum of tourist attractions (nature, cultural heritage, recreation on farms etc.)
<b>ECOLOGIC</b>	
Biodiversity	Maintain natural biodiversity
Contamination/pollution	Decrease of emissions of polluting substances
Darkness and silence	No unnecessary lights and noise
Global responsibility	Understanding and respecting the global biodiversity importance of the Wadden Sea Area
Nature and environmental management and regulation	Implementation of relevant national and international regulations for protection All activities according to Best Environmental Practice
Wadden Sea	Compliance with the Guiding Principle of the trilateral Wadden Sea co-operation: Trilateral Targets