

***GEF***  
***Baltic Sea Regional Project***

**Effective 30 May 2003**

***Budget: USD 12 million***

**ICES/LME Activities = USD 5.6 million**

***Period: 2003 - 2005***

## *GEF/Baltic Sea Regional Project*

### ■ *Project components*

**1 Large Marine Ecosystem Activities, ICES**

**2 Land and Coastal Management  
Activities, HELCOM**

**3 Institutional Strengthening and Regional  
Capacity Building, HELCOM, ICES**

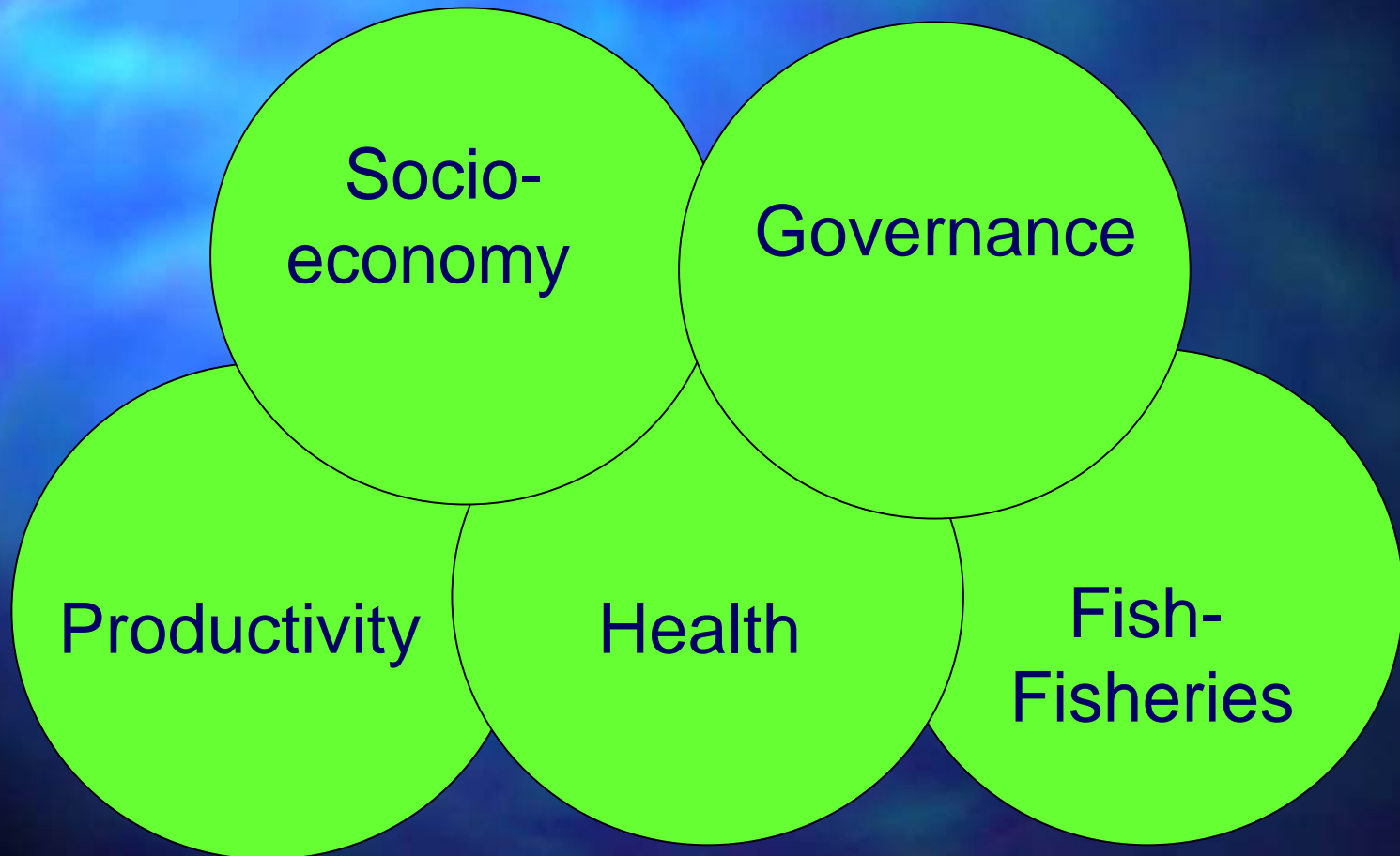
**4 Project Management**

# *GEF/Baltic Sea Regional Project*

## *Goals*

- \* Develop and apply an ecosystem-based management strategy to the BSLME*
- \* Facilitate strengthening of regional institutions through capacity building efforts
- \* Inform and engage stakeholders and decision-makers on the project approach and objectives
- \* Assess and evaluate the socio-economic effects of the ecosystem-based management for farming, fishing and coastal communities

*GEF/Baltic Sea Regional Project*  
*The Large Marine Ecosystem concept*



# GEF/Baltic Sea Regional Project

## The Baltic LME concept

Strengthening technical capacity

**Land**

Training farmers

Grant/Credit on-farm investments. Salmon river rest.

Modeling water quality and nutrient transport

**Coastal**

CZM

Fish stock ass  
Contaminants

MMED

**Marine**

Ships of Opportunity

Joint integrated fish stock ass. surveys

Improved fish landing statistics

Strengthening technical capacity, WS.s

Upgrade laboratories and ships

Improve scientific/and political coordination

**Improvement**

Ecosystem

Socio-  
economy

**Management**

# *GEF/Baltic Sea Regional Project*

## LME Activities



# *GEF/Baltic Sea Regional Project*

## *Productivity Module*

### Priority Issues

- Assessment of productivity levels in the adversely affected coastal and off-shore ecosystems of the BS
- Application of innovative technologies and buoy systems in environmental assessments
- Identifications of links between land-based nutrient inputs and long-term changes of both productivity and biodiversity in selected areas

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## *Pollution and Ecosystem Health Module*

### Priority Issues

- Application of ecological quality criteria for the BS
- Implementation of COMBINE
- Eutrophication and biological effects
- Chemical pollution and biological effects
- Invasive species and biodiversity
- Multiple Marine Ecological disturbances, MMED

# *GEF/Baltic Sea Regional Project*

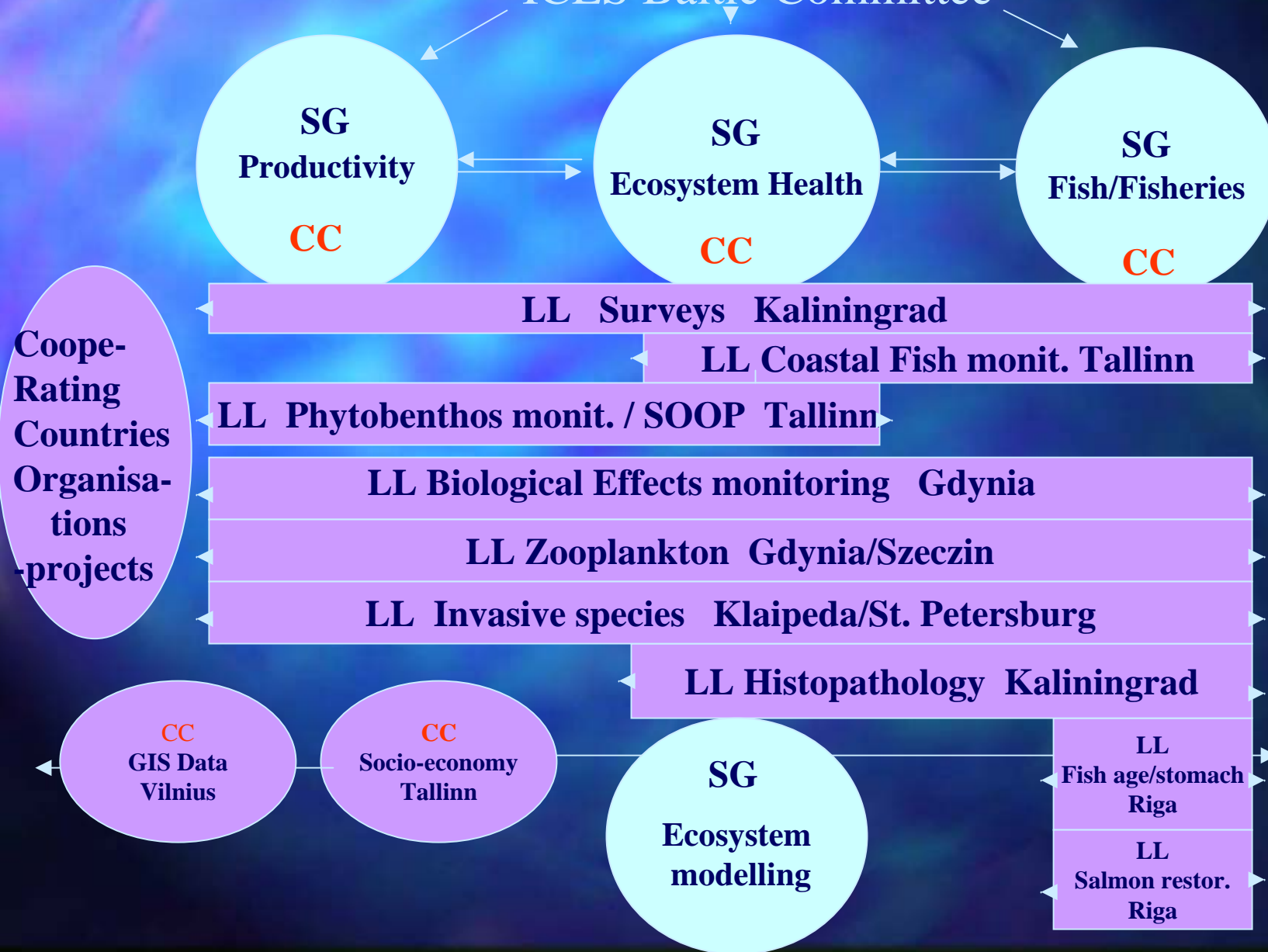
## *Fish and Fisheries Module*

### Priority Issues

- Improvement of assessment and management scheme for main commercial fish stocks in BS
- Improvement and implementation of assessment and management measures for sustainable exploitation of coastal fish resources
- Implementation of IBSFC Salmon Action Plan
- Evaluation of the impact of fisheries upon the ecosystems of the BS

# GEF/Baltic Sea Regional Project

ICES Baltic Committee



## *GEF/Baltic Sea Regional Project*

### *Basic objectives of the subgroups*

- a. Improvement of temporal and spatial coverage of physical oceanographic factors (coarse and fine scale) and assessment of plankton community (**pelagic fish growth and feeding**).
- b. Improved **acoustic estimates** of pelagic species abundance and spatial distribution.
- c. **GIS** data Centre and GIS-database.
- d. Development of environmental-fisheries **integrated models** for management.

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- e. Development of ecosystem **health indicators** versus indices.
- f. Coordination of **joint abundance surveys** including stomach sampling (e.g. from market sampling and survey sampling).
- g. Objective to move from single species assessment/management to **multispecies assessment-management**.
- h. Workshops to develop management **models** and **indicators** for sustainable fisheries (both open sea and coastal).
- i. **Coordination** of Baltic Sea **multispecies issues** (BSRP, ACFM, ACE, BC, SGMAB, WGBFAS, 6th Framework).
- j. Promoting the use of Baltic **herring and sprat** for **human consumption** (e.g., dioxin issues); EU regulation and exception until 2006).

## *GEF/Baltic Sea Regional Project*

- A Study Group on Baltic **Fish and Fisheries** Issues in the BSRP **review** existing knowledge on **environmental and oceanographic processes** affecting fish stock dynamics in both the open sea and coastal areas of the Baltic;
- D determine those physical and biological processes in the **open sea-coastal interaction**, which have relevance for fish population dynamics;
- integrate** the above mentioned processes into the enhanced **assessment models** for commercial fish stocks and new models of coastal fish community structure (in collaboration with SGMAB)

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*A Study Group on Baltic Sea **Productivity** Issues in support of the BSRP*

- a) summarise the evidence for links between **land-based** nutrients inputs and long-term changes of both productivity and biodiversity in eutrophied areas of the **Baltic Sea**;
- b) commence development of a **system of indicators** that characterize **productivity** at different trophic levels in the Baltic Sea that are important to ecosystem-based management;
- c) establish an **inventory** of available productivity data and characterize their use;
- d) **identify** information **gaps** along important trophic transfers in the Baltic Sea ecosystem;
- e) study the feasibility and efficiency of **automated methods** for productivity data collection (e.g. satellite imagery, ships of opportunity, profiling instrument platforms etc.), in collaboration with **BOOS**;
- f) **recommend measures** to adapt the existing measurement programmes to **improve** the **assessment** of Baltic Sea productivity within the framework of ecosystem-based marine management.

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Study Group on Baltic **Ecosystem Health** Issues in support of the BSRP

- a) **further develop** the concept of an **ecosystem approach** particularly adapted to Baltic Sea needs and applications
- b) **elaborate a scheme** for the delivery of research and **scientific advice** for ecosystem-based management in the Baltic Sea area, that is timely and user friendly:
- c) involving: the development and application of a system of **ecological indicators** and related reference points reflecting the objectives, constraints and state of key elements of the ecosystem in a coherent picture; and
- d) supported by the application of appropriate **conservation measures** necessary to protect threatened or vulnerable **species and habitats**.

## *GEF/Baltic Sea Regional Project*

A Study Group on Baltic **Ecosystem Model** Issues in support of the BSRP

- a) analyse the scientific basis of **ecosystem and fishery models** of the Baltic and explore possible connections of them in future generations of Baltic Sea models;
- b) define **needs** for data to initialise and **validate models** and identify gaps in process descriptions to stimulate targeted measurements;
- c) recommend variables included in the BSRP – monitoring to support **future modelling activities**.