

Document of  
The World Bank

Report No: ICR0000585

IMPLEMENTATION COMPLETION AND RESULTS REPORT  
(WBTF-51286)

ON A

GRANT

IN THE AMOUNT OF SDR 4.4 MILLION  
US\$ 5.5 MILLION EQUIVALENT

TO

ESTONIA, LATVIA, LITHUANIA, POLAND AND THE RUSSIAN FEDERATION

FOR A

BALTIC SEA REGIONAL PROJECT – PHASE 1

February 15, 2008

Sustainable Development Department  
Central Europe and Baltics Country Unit, and Russia Country Unit  
Europe and Central Asia Region

## CURRENCY EQUIVALENTS

(Exchange Rate Effective January 24, 2008)

Currency Unit = Euro

1.00 = US\$ 1.45

US\$ 1.00 = 0.69

FISCAL YEAR

January 1 – December 31

## ABBREVIATIONS AND ACRONYMS

AgECS	Agri-Environmental Credit Scheme
BAAP	Baltic Agriculture Run-Off Action Program
BS	Baltic Sea
BSAP	Baltic Sea Action Plan
BSRP	Baltic Sea Regional Project
BSSG	Baltic Sea Steering Group
CAS	Country Assistance Strategy
CPR	Continuous Plankton Recorder
EU	European Union
GA	Grant Agreement
GEF	Global Environment Facility
GEO	Global Environment Objective
GIS	Geographic Information System
HELCOM	Helsinki Commission
IBSFC	International Baltic Sea Fisheries Commission
ICES	International Council for the Exploration of the Sea
JCP	Joint Comprehensive Environmental Action Program for the Baltic Sea
LIU	Local Implementation Unit
LME	Large Marine Ecosystem
MLW	Working Group on Management Plans for Coastal Lagoons & Wetlands
MMED	Multiple Marine Ecological Disturbances
MoA	Ministry of Agriculture
MoE	Ministry of Environment
MoF	Ministry of Finance
NEFCO	Nordic Environment Finance Corporation
NGO	Non-Governmental Organization
NMS	New Member States (of the EU)
NOAA	National Oceanographic & Atmospheric Administration (US)
O&M	Operation and Maintenance
PAD	Project Appraisal Document
PIP	Project Implementation Plan
PIT	Project Implementation Team
PITF	Program Implementation Task Force
QAG	Quality Assurance Group
RAN	Regional Agri-Environment Assessment Network
SIDA	Swedish International Development Agency
SLU	Swedish University of Agricultural Sciences

UAC  
VAT  
WWF

Unit Abatement Costs  
Value Added Tax  
World Wide Fund for Nature

Vice President:	Shigeo Katsu
Country Director:	Orsalia Kalantzopoulos
Sector Manager:	Juergen Voegele
Project Team Leader:	William R. Sutton
ICR Team Leader:	William R. Sutton
ICR Author:	John Fraser Stewart and William R. Sutton

**Estonia, Latvia, Lithuania, Poland, and the Russian Federation  
Baltic Sea Regional Project – Phase 1**

**CONTENTS**

1. Project Context, Global Environment Objectives and Design .....	1
2. Key Factors Affecting Implementation and Outcomes .....	5
3. Assessment of Outcomes .....	12
4. Assessment of Risk to Development Outcome - <i>Rating: Negligible to Low</i> .....	15
5. Assessment of Bank and Borrower Performance .....	16
6. Lessons Learned .....	17
7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners .....	18
Annex 1. Project Costs and Financing.....	20
Annex 2. Outputs by Component .....	21
Annex 3. Economic and Financial Analysis.....	31
Annex 4. Bank Lending and Implementation Support/Supervision Processes .....	32
Annex 5. Beneficiary Survey Results .....	35
Annex 6. Stakeholder Workshop Report and Results.....	36
Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR.....	37
Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders .....	39
Annex 9. List of Supporting Documents .....	41

**MAP**

<b>A. Basic Information</b>			
Country:	Europe and Central Asia	Project Name:	Baltic Sea Regional GEF Project - Phase I
Project ID:	P048795	L/C/TF Number(s):	TF-51286
ICR Date:	02/15/2008	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	HELCOM
Original Total Commitment:	USD 5.5M	Disbursed Amount:	USD 5.3M
<b>Environmental Category: B</b>		<b>Global Focal Area: I</b>	
<b>Implementing Agencies:</b> HELCOM			
<b>Cofinanciers and Other External Partners:</b> NEFCO World Wildlife Fund (WWF) FINLAND NORWAY UNITED STATES GERMANY Swedish International Development Agency (SIDA) International Council for the Exploration of the Sea (ICES) Swedish University of Agricultural Sciences (SLU)			

<b>B. Key Dates</b>				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	07/21/1999	Effectiveness:	05/30/2003	05/30/2003
Appraisal:	02/05/2002	Restructuring(s):		
Approval:	02/25/2003	Mid-term Review:		05/10/2005
		Closing:	06/30/2006	06/30/2007

<b>C. Ratings Summary</b>	
<b>C.1 Performance Rating by ICR</b>	
Outcomes:	Satisfactory
Risk to Global Environment Outcome	Low or Negligible
Bank Performance:	Satisfactory
Borrower Performance:	Satisfactory

<b>C.2 Detailed Ratings of Bank and Borrower Performance</b>			
Bank	Ratings	Borrower	Ratings
Quality at Entry:	Satisfactory	Government:	Satisfactory
Quality of Supervision:	Satisfactory	Implementing Agency/Agencies:	Satisfactory

<b>Overall Bank Performance:</b>	Satisfactory	<b>Overall Borrower Performance:</b>	Satisfactory
----------------------------------	--------------	--------------------------------------	--------------

### C.3 Quality at Entry and Implementation Performance Indicators

Implementation Performance	Indicators	QAG Assessments (if any)	Rating
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	No	Quality of Supervision (QSA):	None
GEO rating before Closing/Inactive status	Satisfactory		

### D. Sector and Theme Codes

	Original	Actual
<b>Sector Code (as % of total Bank financing)</b>		
Animal production	25	25
General agriculture, fishing and forestry sector	75	75
<b>Theme Code (Primary/Secondary)</b>		
Biodiversity	Primary	Primary
Environmental policies and institutions	Primary	Primary
Pollution management and environmental health	Secondary	Secondary
Regional integration	Secondary	Secondary
Water resource management	Secondary	Secondary

### E. Bank Staff

Positions	At ICR	At Approval
Vice President:	Shigeo Katsu	Johannes F. Linn
Country Director:	Orsalia Kalantzopoulos	Roger W. Grawe
Sector Manager:	Juergen Voegelé	Laura Tuck
Project Team Leader:	William R. Sutton	Inesis Kiskis
ICR Team Leader:	William R. Sutton	
ICR Primary Author:	John W. Fraser Stewart	
	William R. Sutton	

## F. Results Framework Analysis

### Global Environment Objectives (GEO) and Key Indicators(as approved)

Project Development Objective: to create some preconditions for application of the ecosystem approach in managing the Baltic Sea Large Marine Ecosystem and achieving and maintaining sustainable biological productivity of the Baltic Sea.

Global Environmental Objective: to facilitate the restoration of ecosystems, improve coastal zone management and reduce agricultural non-point source pollution through the introduction of ecosystem-based approaches in selected localities for land, coastal and open sea environmental management in five recipient countries (Estonia, Latvia, Lithuania, Poland and Russian Federation).

### Revised Global Environment Objectives (as approved by original approving authority) and Key Indicators and reasons/justifications

Neither objectives nor key indicators were formally revised in the course of implementation, though the latter were refined in the light of experience.

Note: To assess achievement of the GEO the key performance indicators as described in the PAD are used. Details on output indicators as set out in Annex 1 of the PAD are provided in Annex 2 of this report. The information below has been adapted due to the fact that there were no "Baseline Values" or "Original Target Values" provided in the project documents.

#### (a) GEO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
<b>Indicator 1 :</b>	Institutional arrangements are in place for joint monitoring, assessment and evaluation of living marine resources.			
Value (quantitative or Qualitative)	No operational institutional network of scientists in the project beneficiary countries exists for joint monitoring, assessment and evaluation of the living marine resources.	A network of Coordination Centers and Lead Laboratories representing the Large Marine Ecosystem concept modules has been created and is fully operational.		A network of Coordination Centers and Lead Laboratories representing the Large Marine Ecosystem concept modules has been created and is fully operational; only socio-economics missing
Date achieved	02/25/2003	06/30/2007		06/30/2007
Comments (incl. % achievement)	Near 100% achieved. The networks established are accepted by all parties and will be used in the continuing work of HELCOM and ICES.			

<b>Indicator 2 :</b>	A technical assessment and joint monitoring system developed to determine the abundance dynamics of key Baltic fish species, as well as alien species.			
Value (quantitative or Qualitative)	Fish monitoring and assessment system existed before 2003; however, coastal fish assessment and monitoring did not exist. No specific alien species monitoring.	Abundance dynamics of the key Baltic fish species including the coastal fish species is monitored and regular technical assessments produced. Alien species monitoring is implemented as a part of BS environmental monitoring program (COMBINE)		Abundance dynamics of key Baltic fish species incl. coastal fish species monitored and regular technical assessments produced. Proposal for inclusion of alien species monitoring into the BS environmental monitoring program (COMBINE) submitted to HELCOM
Date achieved	02/25/2003	06/30/2007		06/30/2007
Comments (incl. % achievement)	90% achieved. System established under project will form the basis of COMBINE program, which will allow continued evaluations of status of BS LME.			

**(b) Intermediate Outcome Indicator(s)**

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
<b>Indicator 1 :</b>	Increasing number of farms and individual farmers (25-30) participate in agri-environmental investment scheme.			
Value (quantitative or Qualitative)	0	25-30		20
Date achieved	02/25/2003	06/30/2007		06/30/2007
Comments (incl. % achievement)	84% achieved. In addition, 48 farms that completed Project's EMS training received financing for environmental investments outside BSRP credit scheme, i.e. from other resources.			
<b>Indicator 2 :</b>	Surface and ground water monitoring stations established in demonstration watersheds to track the nutrient levels.			
Value (quantitative or Qualitative)	Network of monitoring stations incomplete and poorly equipped.	Monitoring stations established in demonstration watersheds.		Network established with 3 stations and monitoring equipment for 4



				stations.
Date achieved	02/25/2003	06/30/2007		06/30/2007
Comments (incl. % achievement)	100% achieved. 2 new monitoring stations constructed (Lithuania, Estonia), 1 renovated and upgraded (Latvia); 4 sets of monitoring equipment purchased (Estonia, Latvia, Lithuania, Russia-Kaliningrad region).			
<b>Indicator 3 :</b>	One wetland being restored.			
Value (quantitative or Qualitative)	No wetland restoration activity demonstrated.	Wetland restoration activity demonstrated.		Wetland restoration activity demonstrated in 3 countries.
Date achieved	02/25/2003	06/30/2007		06/30/2007
Comments (incl. % achievement)	Estonia: 240 ha of coastal wetlands/meadows restored in Kihnu Strait Marine Park; Latvia: 80 ha restored wetland/meadows in Lake Engure area; Lithuania: Aukstumale bog restored as wetland. Sea trout and lamprey river in Western Estonia restored.			
<b>Indicator 4 :</b>	A Baltic Sea Steering Group established and operational.			
Value (quantitative or Qualitative)	No steering group.	Project activities are steered on a regional forum.	Regional oversight of the project carried out by HELCOM HOD and ICES Committee.	Established, but operational through HELCOM working groups, Heads of Delegation (HOD), Commission (HELCOM) and ICES Bureau meetings.
Date achieved	02/25/2003	06/30/2007	10/15/2004	06/30/2007
Comments (incl. % achievement)	Steering Group was established but ceased operation in October 2004, because of overlap of functions with already established working structure of HELCOM and ICES.			

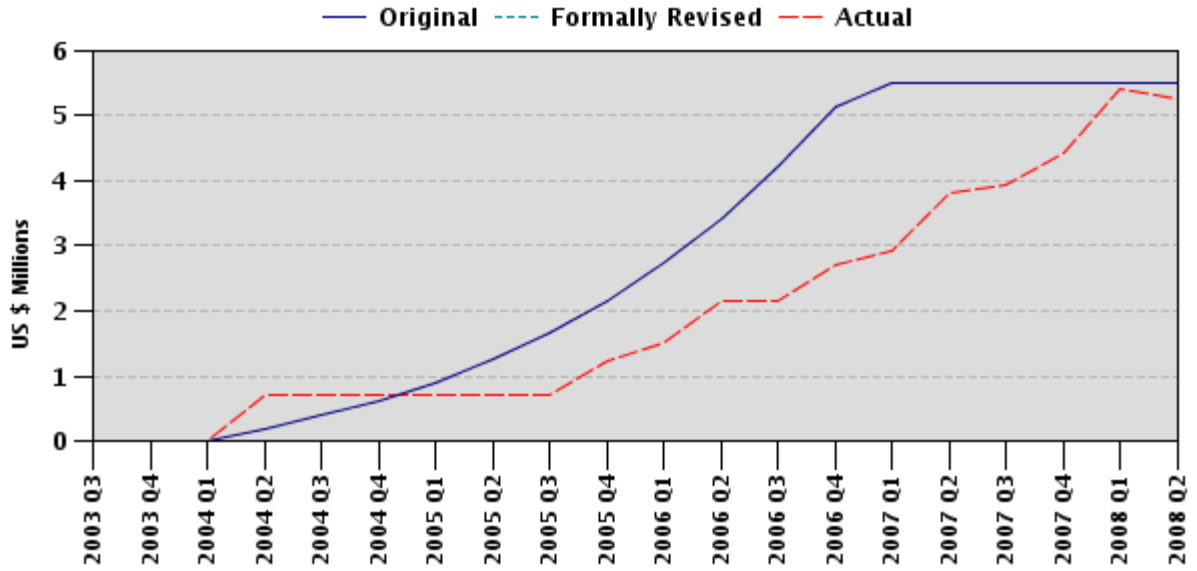
## G. Ratings of Project Performance in ISRs

No.	Date ISR Archived	GEO	IP	Actual Disbursements (USD millions)
1	06/17/2003	Satisfactory	Satisfactory	0.00
2	12/01/2003	Satisfactory	Satisfactory	0.00
3	05/20/2004	Satisfactory	Satisfactory	0.00
4	11/09/2004	Satisfactory	Satisfactory	0.00
5	05/31/2005	Satisfactory	Satisfactory	0.00
6	03/29/2006	Satisfactory	Moderately Satisfactory	0.00
7	06/13/2007	Satisfactory	Satisfactory	0.00
8	06/29/2007	Satisfactory	Moderately Satisfactory	0.00

## H. Restructuring (if any)

Not Applicable

## I. Disbursement Profile



## 1. Project Context, Global Environment Objectives and Design

### 1.1 Context at Appraisal

*For all five recipient countries<sup>1</sup>, the project was consistent with high level Bank commitments to address regional environmental management issues made at the Heads of Government Meeting on the Baltic Sea (Ronneby, Sweden - 1990) and the respective Country Assistance Strategy (CAS) development objectives* pertaining to sustainable rural development, strengthening local institutions, protection of natural resources and mitigating environmental decay. More details are in Annex 10.

**Sector Context** - While the Baltic Sea ecosystem (see Map) provides goods and services to 80 million people inhabiting its shores and drainage basin, its full potential for provision of social, economic and environmental benefits was not being realized, and the Baltic was threatened with further degradation as a result of pollution and unsustainable resources management practices. The Baltic Sea is a semi-enclosed water body connected with the North Sea by narrow and shallow sounds that limit water exchange to sporadic inflows of saline and oxygen-rich North Sea water and intermediate periods of stagnation. Since renewal of the waters of the Baltic Sea takes place over a period of about 25 years, contaminants remain in the Sea for a long time and result in negative ecological impacts. Contaminants and nutrients enter the Baltic Sea via river run-off, through atmospheric deposition and from human activities at sea. Threats to sustainable economic development include: (i) degradation of water quality from point and non-point sources of pollution; (ii) local degradation of the coastal zone from poor planning and land use practices; (iii) reduced productivity from eutrophication and harmful algal blooms in coastal and marine waters; (iv) unsustainable management of fisheries; and (v) diseases in marine life associated with pollution and emerging problems with introduced "alien" species. Because of their trans-boundary nature, these threats require coordinated action from all riparian countries for their resolution.

**Governments' Regional Strategy** - Since the late 1960s, the status of the Baltic Sea marine environment has been a major concern of the riparian countries, leading to the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1974, which was revised in 1992 (the Helsinki Convention). Furthering the aim to conserve and restore the Baltic Sea, the Baltic Sea Joint Comprehensive Environmental Action Program (JCP) was prepared in 1992 by the Baltic Marine Environmental Protection Commission, **also known as the Helsinki Commission (HELCOM)**, the governing body of the Helsinki Convention, and updated in 1998 upon the mandate of the Heads of Government meetings held in Ronneby, Sweden (1990); Visby, Sweden (1996); and Riga, Latvia (1998). The long-term objective of the JCP is to restore the ecological balance of the Baltic Sea through a series of complementary preventive and curative actions. It includes actions for over 130 municipal, industrial and agricultural area "hot spots" that are significant sources of pollution to the Baltic Sea. The JCP also includes actions for management of the ecologically important coastal lagoons and wetlands on the Baltic Sea. The Bank played a major role in supporting the preparation of the JCP and actively participated in the Program Implementation Task Force formed to coordinate the implementation process across the entire Baltic Sea Region.

**Rationale for Bank Support** - Earlier phases of the JCP primarily addressed municipal and industrial pollution sources in all riparian countries. The Bank played a visible role in implementing the JCP in the three Baltic States and Poland, by supporting environmental projects in Haapsalu-Matsalu Bays, Estonia; Daugavpils and Liepaja, Latvia; and Klaipeda and Siauliai in Lithuania. These projects helped the

---

<sup>1</sup> Estonia, Latvia, Lithuania, Poland and the Russian Federation

recipient countries to improve their water and wastewater services and to launch activities to reduce agricultural non-point-source pollution, as well as introduction of integrated coastal zone management practices and protected areas management. For Poland, support was provided through the Environmental Management Project and municipal water and wastewater services projects. In the Russian Federation, the Bank has worked to rehabilitate and upgrade water and sanitation services in St. Petersburg.

The JCP entered a new phase of implementation in March 1998, following approval by the Ministers of Environment of the JCP "Recommendations for Updating and Strengthening," which reviewed progress, identified priorities for future action and developed lessons learned. Reducing non-point source pollution (mainly from agricultural sources) remained high on the environmental agenda, as it contributed nearly half of the nutrient pollution load to the Baltic Sea. The recipient countries, as contracting parties of the Helsinki Convention, are obliged to reduce point and non-point source pollution, improve coastal zone management, and support sustainable fishery practices, to restore over the long-term the ecological balance of the Baltic Sea. To this end, they have established environmental policies and priorities that support the Helsinki Convention and the JCP. Except for the Russian Federation, the recipient country governments are committed to moving into compliance with relevant European Union (EU) directives as part of the accession process (the Nitrates Directive, Environment Directives, and the Water Framework Directive). All governments recognized the BSRP as a key mechanism for supporting national programs and meeting the regional obligation of improving environmental management of the Baltic Sea.

## **1.2 Original Project Objectives and Key Indicators (as approved)**

***Project Development Objective:*** To create some preconditions for application of the ecosystem approach in managing the Baltic Sea Large Marine Ecosystem in order to achieve and maintain sustainable biological productivity of the Baltic Sea.

***The Global Environmental Objective (GEO):*** To facilitate the restoration of ecosystems, improve coastal zone management and reduce agricultural non-point source pollution through the introduction of ecosystem-based approaches in selected localities for land, coastal and open sea environmental management in five countries. Project activities supported implementation of the Helsinki Convention and the JCP, which is fully consistent with GEF Operational Program 9 (OP-9), Integrated Land and Water Multiple Focal Area Operational Program, which aims to support “better land and water resource management practices on an area wide basis”. The project provided opportunities for the GEF to be a “catalyst to bring about the successful integration of improved land and water resource management practices on an area wide basis while providing preventive measures to address threats rather than remedial measures.” The project had a regional focus involving local communities and stakeholders; its biodiversity considerations focus on “prevention of damage to threatened waters.” As part of an integrated approach, project activities were to support linkages with activities of the cooperating countries, international financial institutions, European Union (EU), bilateral donors and NGOs.

Project activities were undertaken in Estonia, Latvia, Lithuania, Poland and the Russian Federation, along their Baltic coastal areas and in the adjacent coastal and open sea area. The project was implemented as an integrated activity, with HELCOM serving as the implementing agency, and working in coordination with the International Baltic Sea Fisheries Commission (IBSFC) until its closure in 2005 and with the International Council for the Exploration of the Sea (ICES).

***Key Performance Indicators*** against which achievement of project objectives would be judged are set out in the Data Sheet, Section F and were developed in the course of project implementation from the qualitative set of 20 in the PAD. The six adopted indicators cover institutional and capacity building measures, monitoring and data management, fisheries, grasslands and wetlands restoration, and agri-

environmental investments. With hindsight, one can say that the set of indicators was too numerous, difficult to quantify, and included a number of measures of process rather than impact.

### **1.3 Revised GEO and Key Indicators, and reasons/justification**

There was no formal revision of the GEO or key indicators.

### **1.4 Main Beneficiaries**

The primary *regional benefits* were intended to result from strengthening the decision making process at the regional, national and local levels for sustainable ecosystem-based management of the Baltic Sea resources. This was to result over the medium and long-term in: strengthened regional institutional capacity for coordinated decision-making and dissemination of recommendations; empowerment of local communities in the management of agricultural and coastal resources; demonstration of an effective mechanism for environmental management and on-farm investments in agriculture; reduction of nitrate input to Baltic Sea coastal and transboundary waters; sustainable use of fishery resources at the regional and national levels; and improved marine ecosystem health and related benefits associated with fisheries, other living resources and coastal populations.

*Project target population and beneficiaries* included: the three key participating *International Bodies*, HELCOM, IBSFC, and ICES, which would benefit from efforts to facilitate regional cooperation and coordination in the decision-making process; *National and Local Governments*, which would realize an opportunity to improve their technical capacities and participate as equal technical and political partners with western European countries in the three international bodies; *Farming Communities* - through investments in manure management, farmers would save money by reducing the use of chemical fertilizers, with increased incomes from improved productivity, and reduced negative impacts on ground water and air quality; *Coastal Communities*, which would be able to utilize resources from a better managed coastal ecosystem, which would indirectly benefit local businesses and employment through an increase in tourism; *Fishing Communities*, which would be able to use more efficient technologies and methodologies for sustainable use of fishery resources; and, *Tourism Interests*, which would benefit, in the long-term, through an increase in sustainable coastal tourism that would emphasize natural resource and cultural values.

### **1.5 Original Components**

Project components were based on the Large Marine Ecosystem (LME) concept<sup>2</sup> and included integrated land, coastal and open sea activities to strengthen local and regional capacity to achieve sustainable ecosystem management of Baltic Sea resources. The advantage of an ecosystem approach is that it shifts current management practices from sectoral, short-term perspectives, with humans independent of ecosystems, to ecosystem-based, long-term perspectives with humans integral to ecosystems. Sustainable management would improve ecosystem health while providing social and economic benefits to farming, coastal and fishing communities and sectors such as businesses and tourism. The Project included the following four complementary components (see Annex 10 for a detailed project description):

---

<sup>2</sup> The LME model was developed by K. Sherman and L. Alexander beginning in the 1980s. LMEs are defined as regions of ocean space encompassing coastal areas from river basins and estuaries out to the seaward boundary and continental shelves and the seaward margins of coastal current systems. The LME management approach has the following five modules: productivity; ecosystem health; fish/fisheries; socio-economic; and, management.

*Component 1 – Large Marine Ecosystem Management Activities* (US\$5.62 million, or 46.5 percent of the total cost). The main coastal and open-sea water management issues in the Baltic Sea are ecosystem impacts from eutrophication and over fishing. Management of these issues requires strengthened institutional and technical coordination of information, resources and management activities at the regional and local levels. While other trans-boundary issues have been identified, previous resource management policies and practices were not holistic and ecosystem-based. The component's primary objective, therefore, was to demonstrate the principles and benefits of the LME concept for Baltic coastal and open sea resources. Activities emphasize close coordination between sectors and countries. In coordination with the other Project components, Component 1 aimed to: (i) establish local and regional administrative and organizational mechanisms, through the Coordination Centers, for cooperative monitoring and assessment, (ii) develop management tools through modeling and assessment to provide proposals for ecosystem-based management of land, coastal zones and open sea waters, and (iii) support cooperating countries to move toward compliance with international agreements, regional priorities and national policies, including the Helsinki Convention, Baltic 21 (Council of the Baltic Sea States), and (except for the Russian Federation) EU environmental and water management directives.

*Component 2 – Land and Coastal Management Activities* (US\$4.99 million, or 44.0 percent of the total cost). Addressing land-based agricultural inputs to coastal and open sea waters and improving coastal zone management are critical for management of the Baltic Sea ecosystem. The agricultural element of the Component was to: (i) test administrative and organizational mechanisms (regional and local) and provide advice and support to the farming community; (ii) assess farmers' interest in and willingness to pay for improving their environmental management practices; (iii) assist farmers to lower both the risk and barriers that currently hinder adoption of new practices; and (iv) provide partial support for small-scale environmentally responsible agricultural investments. The coastal zone management element of the Component was to: (i) focus on the role that can be played by local communities in sustainable management of coastal resources; (ii) link activities in the demonstration watershed to activities being taken on the coast; (iii) support implementation of previously prepared management plans; and (iv) assist local communities to overcome barriers to adoption of new planning and management methods in these sensitive areas.

*Component 3 – Institutional Strengthening and Regional Capacity Building.* (US\$0.15 million, or 1.2 percent of total cost). The Component's objective was to strengthen regional and local capacity to successfully utilize outputs and recommendations from Component 1 and Component 2 activities for sustainable ecosystem-based management. It included limited support for: (i) regional capacity building; (ii) targeted activities to facilitate improved regional level coordination and cooperation between HELCOM, IBSFC, ICES and regional stakeholders; (iii) improved valuation of ecosystem goods and services through an evaluation of the socioeconomic implications of reduced eutrophication on ecosystem resources; (iv) training activities for community-based groups and local NGOs; and (v) a regional public outreach program.

*Component 4 – Project Management* (US\$1.36 million, or 11.2 percent of total cost) funded local and regional project management, procurement services, the social assessment and required financial audits.

## **1.6 Revised Components**

Components were not formally revised.

## **1.7 Other significant changes**

*Extension of the closing date:* The project was extended by one year, from the original closing date of 06/30/2006 to 06/30/2007 because of delays and disbursement lags especially at the beginning of project implementation. Reasons included: the longer than expected time to establish the Project's complex

implementation mechanisms; the need for highly specialized scientific equipment, which led to procurement delays; and, the significant time required to train farmers and complete the application process for farm investments.

*Reallocation:* funds were reallocated from Components 2 and 3 to Components 1 and 4 because: the reduced relative attractiveness of the NEFCO loans for Component 2 on-farm investments due to increased competition from commercial and EU sources in the EU New Member States (NMS) after accession, resulting in some farmers dropping out of the project credit scheme; the increased cost of specialized equipment and the greater than expected research and network activities carried out under Component 1; as described in Section 3.2, reductions in Component 3 in anticipation of shifting some activities to Phase 2; and, due to the extension, there were additional expenses under Component 4.

*Steering Group:* as described in Section 3.2, the decision was made to replace the Baltic Sea Steering Group with discussions of project issues within the HELCOM and ICES working structures.

*Expansion to Leningrad Region:* during the final year of implementation, based on a request from project partners at the Swedish International Development Agency (SIDA) and the Swedish University of Agricultural Sciences (SLU), a decision was made to expand Component 2 activities into the Leningrad Region of Russia, in addition to the Kaliningrad Region, building on an ongoing SIDA-financed project, in the expectation that there would be more demand for the investment packages than in the NMS.

## **2. Key Factors Affecting Implementation and Outcomes**

### **2.1 Project Preparation, Design and Quality at Entry**

**Project Preparation:** Pre-identification took place in early 1998. With the support of a GEF grant, preparation commenced in mid 1999, but was significantly delayed from August 1999, when an automobile accident led to serious injury of both the Bank and project team leaders. Subsequently, the preparation grant was extended by a year through June 2001, with appraisal in February 2002 and approval one year later in early 2003. The preparation and appraisal process was also delayed because of a problem with the availability of funds from GEF and their allocation between projects. The result was that the project was changed from a single project with a GEF allocation of US\$18.0 million to a planned three-phase program, with a first phase of US\$5.5 million. These changes necessitated some significant modifications to project design and implementation arrangements. At the time of appraisal, the second phase was expected to entail undertaking cooperative activities for assessment and management of coastal and open sea marine resources; expansion of activities for land and coastal management; joint activities for linkage of land, coastal and open sea management programs; and continuation of the investment program in the agriculture sector. The third phase would have included expanded application of the ecosystem approach; completion of field based management and demonstration activities; and preparation and evaluation of assessment studies.

Preparation was *participatory*, and included extensive consultations with the farming and coastal communities in all beneficiary countries. Local agricultural advisory services and NGOs acted as intermediates. Several joint preparation missions took place with the World Bank, SIDA, NEFCO, SLU and others to discuss the design at the regional, national and local levels. Preparation built on existing local cooperative structures, established through different bilateral projects and networks.

**Project Design: Institutional Arrangements.** Adoption of the LME approach and the division of the original project into phases resulted in a project with a large number of fairly small activities. Along with the need to minimize overhead costs at HELCOM, these factors led to a rather complex and *ad hoc* structure for project execution. *Project execution, overall coordination and monitoring and evaluation* was undertaken by HELCOM in Helsinki, in collaboration with IBSFC (which was based in Warsaw but was dissolved on January 1<sup>st</sup> 2006), and ICES in Copenhagen. A project implementation team (PIT) was

established, under the supervision of the HELCOM Executive Secretary. The PIT comprised three HELCOM administrative staff, who each allocated up to 20% of their time to BSRP activities (but were not paid from the project); and a Project Assistant, a Financial Assistant, and a Procurement Consultant, funded under the project.

*Management of Component 1* (LME Management Activities), was delegated to a Component Coordinator at ICES headquarters (financed by the Swedish Government), who allocated 100% of his time to BSRP activities during the first project year, decreasing his involvement to 30% over time. He interacted directly with an Assistant Component Coordinator, based in Latvia, who allocated up to 70% of his time to BSRP activities, and Local Project Managers, funded for 50% of their time under the project, who were staff of separate academic and research institutions of the LME Network in Estonia, Latvia, Lithuania, Poland, and Kaliningrad and Leningrad regions of Russia. *Management of Component 2* (Land and Coastal Management Activities) was delegated to a Component Coordinator on the SLU staff in Uppsala, Sweden who allocated about 30% of his time, financed by Swedish SIDA, for BSRP activities, working through existing field structures established under ongoing SIDA and Bank projects for nutrient reduction. He also supervised the work of Local Implementation Units (LIUs) established within the agricultural extension services in Estonia, Latvia, Lithuania and Kaliningrad. Each LIU included an LIU Director, a farm economist, a farm technical specialist, a monitoring and modeling specialist, and a coastal zone management specialist, each of whom allocated 40% of their time to BSRP activities, funded under the Project. For agri-environmental investments, HELCOM contracted the Nordic Environmental Finance Corporation (NEFCO) to jointly finance pilot investments in eligible farms and manage the GEF sub-grants. LIUs were to introduce the investment schemes among farmers by means of introductory seminars, coupled with training courses offered by local agricultural advisory services, to provide guidance on environmental management and business planning that could then be used to apply for NEFCO loans and GEF grants under the project, EU grants, or bank loans. Coastal Zone Management Activities were managed by a Coastal Coordinator at World Wide Fund for Nature (WWF) Sweden (financed by Swedish SIDA), who allocated about 30% of his time to BSRP activities, which included working with coastal zone specialists of the LIUs, who were generally employees of local environmental NGOs.

Given the large number of participating countries and institutions, *a Baltic Sea Steering Group (BSSG)* was to be established to provide broad based support for the implementation process. The BSSG was to include members from HELCOM, IBSFC and ICES, and senior representatives of the riparian countries, and NOAA (US government).

*Project design drew on a broad range of lessons learned.* At the regional level, a review of “lessons learned” that was prepared for the first phase of the JPC, identified three measures as critical for success: (i) sustained political and public commitment to the long term objectives of the program, (ii) a “shared vision provided through a commonly prepared “strategic action program”, and (iii) a broad-based partnership to support implementation of the agreed “preventive” and “curative” actions. Difficulties associated with the translation of plans to actions were recognized as the major challenges facing all such programs. The PAD identified key lessons learned by the donors and recipient countries working in the region on environmental and agricultural projects (including the need for capacity building, consistent procedures between countries, cost-effectiveness and the value of linkages with ongoing projects); as well as some from the Bank’s experience (an agreed project framework, stakeholder agreement on processes and expectations, and a clear understanding of procurement and disbursement procedures).

*Assessment of Risks.* Project design benefited from a thorough assessment of risks at appraisal and provision of mitigating measures. Although no risks were rated more than Moderate, areas of concern included possible limited collaboration between agencies, sustainability of on-farm investments, the commitment of local governments, and cumbersome procedures. Fisheries management was cited as a



possibly controversial aspect. One risk area that was not, however, included in this assessment relates to the challenges of effectively coordinating and managing implementation of multiple project activities, given their broad geographical and technical coverage, as well as the overall complexity of institutional arrangements. Two of the lessons cited in the PAD that were intended to influence project design include desirability of clearly defining project goals and activities, and of developing a clear project framework. In retrospect, project implementation would have benefited from taking these lessons on board more substantively. One option for doing so could have been to clearly identify an overall project manager, at a senior level, tasked with responsibility for working with the various beneficiaries and participating institutions to assist them to develop and regularly update a shared, bench marked schedule of progress, including indicators of both progress and impact. In the absence of an operational manager, achieving overall project coherence and outcomes was made more difficult. A second risk that was not articulated at appraisal was that of the impacts on the NMS of EU accession. This allowed farmers to gain access to EU Structural Funds grants for on-farm investments, which made the Agri-Environmental Credit Scheme (AgECS) offered under the project less competitive, and reduced demand for loans under the scheme.

***Quality at Entry.*** Adoption of the LME model resulted in a project design that covered a wide range of activities, and the limited GEF funding available caused all sub-components to be rather small. Adding to project complexity was an institutional structure with many players, mostly working part time and without an overall project manager. Alternatives considered in the PAD were: a set of national projects; a focus on curative investments; and, a set of sector specific programs. The adoption of a holistic approach, with the inclusion of capacity building and basic monitoring and data management services, appears to have been justified by experience. Offsetting the complex design was the known capability of HELCOM and the other institutions and the Bank's prior experience with the Baltic Sea, leading to a very good analysis of issues and program design, enhanced by the competence and professionalism of the project staff. On balance, quality at entry is rated Satisfactory.

## **2.2 Implementation**

### ***Factors contributing to success***

*Renewed focus on results* – As the original closing date of 06/30/06 approached, it became clear to the Bank supervision team that the Project was not going to complete implementation or fully disburse. At the time, disbursements were only at 40%. Therefore, the Bank team discussed with the client and with Bank management the possibility of an extension. By that time, the PIT had done a good job of overcoming the initial design complexities of the project and establishing the preconditions for effective implementation, including networks of scientists and extension agents in the beneficiary countries. But these networks had not yet been mobilized in a manner that would ensure the timely implementation of all planned activities. In response, in conjunction with the extension, the Bank team worked with the PIT to reinvigorate implementation activities and to renew the focus on achieving results. The extension gave the possibility of arranging a participatory logframe workshop with all key project stakeholders in June 2006. The workshop discussed what had to be achieved over the additional 12 months of implementation in order for the Project to be considered a success, and reviewed and refined the project logframe and M&E system, with an emphasis on the links between individual project activities and how they contributed to achieving the Project's overall goals and objectives. This helped to improve implementation over the final year of the Project, so that nearly all funds were disbursed and the PDO was achieved.

*Capacity and commitment of participants* – The project benefited from the high level of technical capacity of the project participants. What were missing were financial resources, networking and knowledge sharing with counterparts in other riparian countries and, in the case of Component 2, training in the specific environmental management techniques required. These inputs were provided by the

project, but it was the capacity of the people involved that allowed them to readily absorb and apply them. In addition, throughout the project implementation and beyond, the participants have maintained a commitment to their work and to the goal of improving the Baltic Sea ecosystem. These are important factors that are not always present in Bank/GEF projects.

*Policy environment* – Successful implementation of project activities was enhanced by the wider policy environment, particularly in the four EU NMS. EU mandates such as the Nitrates Directive, Water Framework Directive, Marine Strategy, and Green Paper on Maritime Policy encouraged the NMS beneficiaries to treat as urgent measures for improving and monitoring of water quality and environmental management, and to mainstream them into national systems. Conversely, the lack of such a mandate in the Russian Federation may help to explain the slower progress there, particularly under Component 2.

*Participation of regional cofinanciers and development partners* – The active and extensive collaboration with development partners, particularly ICES, NEFCO, SIDA, SLU and WWF, helped the Project to leverage additional resources of over \$10 million in direct cofinancing, and to benefit from regional knowledge and networks. The fact that an accepted body for coordinating Baltic environment activities between countries already existed—in the form of HELCOM—also contributed to the success of the regional effort.

### ***Factors that gave rise to problems***

*Complicated institutional and reporting structure* – The implementation arrangements for the project were quite complex and dispersed, with different implementation structures for each of the two main components spread across five beneficiary countries and a management/coordination team dispersed over at least four countries (Finland, Sweden, Denmark and Latvia). Due to the transboundary nature of the tasks, Component 1 was organized along thematic lines, with CCs and LLs for different themes located in different countries. Component 2 was organized on a national basis, with a similar LIU located in each country. The national staff implementing the activities under the two components reported to different Component Coordinators located in different countries who then reported to the PIT at HELCOM. As a result, information flows in both directions were slowed and less effective, contributing to slower than expected implementation progress, disbursements, and reporting to the Bank. These factors in turn resulted in Implementation Progress ratings twice being downgraded from Satisfactory to Moderately Satisfactory. The variation in institutional arrangements across components may also have reduced project cohesion in the beginning. But it should be acknowledged that these kinds of coordination issues typically arise in multi-country, cross-sectoral projects, which are by nature more complex.

*Lack of a project manager* – The Project lacked a full-time, dedicated project manager empowered to directly hold project participants accountable for adhering to schedules and delivering results. Component Coordinators only worked on the project part-time. The project staff at HELCOM were not empowered to directly communicate with beneficiary country implementing agencies and hold them to account, contributing to implementation delays.

*Lack of familiarity with project implementation* – Although the institutions participating in the project were strong technically, most had little prior experience in implementing large investment operations on the ground. They also needed time to become familiar with Bank fiduciary requirements. The lack of capacity and continuity in local institutions also resulted in delays.

*Complex investment application process* – While EU membership and the opportunities it entailed were primarily responsible for lower-than-expected demand for the Component 2 AgECS, the application process was also complex and lengthy. Farmers participated in extensive training (which was an objective on its own), prepared detailed Environmental Management Plans, including both economic and

environmental analysis, and applications then went through several stages of technical and financial review by different local and international implementing agencies. Requirements often multiplied because farmers applied for BSRP funds and EU resources for the same investments. After they were approved, procurement was carried out individually for each investment.

*Changes in VAT regime* - In 2003, when the Grant Agreement (GA) was signed, the potential impact of changing tax legislation due to EU accession of the four NMS was not fully anticipated. The GA provided for different disbursement percentages to factor in VAT payments. 82% of local expenditures were paid and 100% of foreign. At the same time, 'local' was defined as purchases from any of the beneficiary countries. After EU regulations on destination-based VAT in 'intra-community sales' came into force, some beneficiaries had to pay VAT in their country in addition to the 18% copayment, while others would only pay 18%, and others<sup>3</sup> would be paid 100% from the Grant. This would result in a differential treatment of beneficiaries and complicate and delay payment processing, as each would have to be dealt with on a case-by-case basis. In response, PIT held payments until resolution of the problem, which further slowed disbursements. This was also an unusual problem for the Bank. Nevertheless, the Bank resolved it satisfactorily by the end of 2006 by ensuring that all beneficiaries were treated equally.

### **2.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization**

*M&E design* - The monitoring and evaluation plan was based on the Project Logical Framework (logframe) (Annex 1 to the PAD). In addition, the PAD listed key outcome indicators to measure achievement of the GEO. The Project Implementation Plan (PIP) included an M&E plan that provided practical guidance on M&E implementation. While the Project's outcome indicators were primarily activity - rather than impact - oriented, they did allow for measuring progress towards achievement of the approved GEO. The logframe provided a list of detailed output indicators. However, it was difficult to track intermediate progress, particularly early on in implementation, as no baseline or target values were established. Some output indicators also entailed a wider scale of activities, not all of which could have been attributed solely to project activities and investments. Certain indicators, particularly to measure Component 1 progress, were too broad and therefore raised questions about whether they were supposed to be achieved during Phase 1 of the project or in the following phase(s). No indicators beyond operationalizing the implementation team were defined for the project management component.

*M&E implementation* - HELCOM PIT was responsible for preparing quarterly and annual project progress reports that would be submitted to the Bank together with financial management reports. In addition, the PIP's M&E Plan envisaged preparation of monthly progress reports but this was dropped at an early stage of the implementation. Instead, quarterly and annual reports generally were submitted with little or no delays. However, during the final year of implementation, more significant delays occurred due to the additional workload that occurred from increased procurement and disbursement activity towards the end of the project. Initial progress reports submitted to the Bank lacked clarity. For example, some of the indicators designed to track progress in qualitative terms provided a quantitative result in the form of a percentage of activity completion. Also, M&E focused on activity completion rather than impacts of these activities towards achievement of the GEO. The Task Team worked closely with the PIT to modify formats of progress reports to address the above shortcomings. In June 2006 a professionally facilitated, participatory logframe workshop with all key project stakeholders was organized to refine the project logframe to focus on results. As a result, although key monitoring indicators were not formally revised, subsequent reporting was considerably improved.

---

<sup>3</sup> Non-VAT paying institutes when goods were purchased from non-beneficiary countries

*M&E utilization* – M&E was used by the implementing agencies and the Bank to track implementation progress and results, and to share these with stakeholders. The project was covered by the HELCOM and ICES Information Services, which disseminated activity status reports and success stories through newsletters, annual reports, brochures, press releases, and dedicated web pages.<sup>4</sup> The information was targeted at the media, government officials, professional groups, and general public. During the last year of implementation, some funding within the project was allocated to intensify local awareness activities. Availability of information on outputs and achievements greatly supported this endeavor.

## **2.4 Safeguard and Fiduciary Compliance**

***Safeguards.*** During preparation, an Environmental Management Plan (EMP) was prepared consistent with World Bank OP/BP 4.01 on “Environmental Assessment” for Category “B” projects, including consultation and disclosure requirements. No other safeguard policies were triggered. The EMP determined that the project would provide opportunities for environmental, socio-economic and health improvements in the Baltic Sea region, which is the aim of the project, but that some short-term environmental impacts might occur from construction of farm improvement features, stream and wetland restoration. As a result, mitigation measures were put in place to minimize any of the potential negative short-term impacts. For example, environmental management plans were required for all AgECS investments. Implementation of these activities was monitored as part of regular supervision. No significant safeguards issues arose during project implementation.

***Financial Management.*** Despite some hurdles at the beginning of the project, the FM system including accounting, internal controls and reporting was generally adequate and satisfactory to the Bank. Quarterly financial reports were prepared by the PIT staff and submitted to the Bank, generally with little or no delays. Delays occurred during the final year of the project due to additional work burden related to the increased procurement and disbursement activity at the completion stage, as well as preparations for the potential 2<sup>nd</sup> phase of the project. Project financial statements were audited on an annual basis. Reports had unqualified (clean) opinions, although reports for the CY2003 and 2004 were considered unsatisfactory to the Bank, as data by project component contained in the audited financial statements did not agree with the Bank data. Resubmitted audits were acceptable. Unqualified opinion was issued for CY2005 financial statements, although some shortcomings in the control over advances, physical counts of inventories and fixed assets, and timely submission of consultant’s time sheet and expense reports were noted. PIT FM staff followed up on the recommendations of the auditor to the best of their abilities. The final audit of the project financial statements, covering CY2006 and January-October 2007, was undertaken after the end of the grace period and received a clean opinion on December 21, 2007.

***Procurement.*** Procurement under the project has been acceptable to the Bank. The procurement process was generally well organized and all procedures were followed. Staffing was stable throughout implementation. Progress reports regularly addressed procurement and updated the procurement plan. Post reviews were conducted annually and only minor procedural errors were raised by the Bank team. Record-keeping of procurement was adequate, although better filing of procurement documents was recommended. At the beginning of the project, the majority of procurement was related to hiring consultants with no procurement issues emerging. Later contracts, particularly those involving laboratory equipment, experienced some delays throughout all stages of procurement process, including preparation of bidding documents, contract signing and contract completion, due to the complexity of the equipment being procured and unfamiliarity with Bank procurement, and difficulties related to the payment of VAT.

---

<sup>4</sup> See: [http://www.helcom.fi/projects/GEF-BSRP/en\\_GB/bsrp/](http://www.helcom.fi/projects/GEF-BSRP/en_GB/bsrp/); and <http://www.ices.dk/projects/balticsea.asp>

## 2.5 Post-completion Operation/Next Phase

*Project implementation was mainstreamed from the outset*, with all project activities being supervised, managed or implemented by permanent staff of a broad range of government, academic, local authority and non-government organizations in all riparian countries, as part of their regular work plans. This strategy ensured the development of awareness and ownership of the goals and objectives supported by the project, capacity building, and mainstreaming of follow on actions across the region.

*Progress made under the Project is likely to be carried forward* through operation of an array of permanent international groups, including: The Baltic Ecosystem Health, Productivity, and Fisheries Assessment study groups, and working groups on Integrated Assessment of the Baltic (all established under ICES); and the Expert Network on coastal fish monitoring (established under HELCOM). Most significantly, project participants will be implementing the HELCOM-sponsored **Baltic Sea Action Plan** (BSAP), which was adopted by all riparian countries and the EU on November 15, 2007. The BSAP is an ambitious, overarching program to dramatically reduce pollution in the Baltic and restore its good ecological status by 2021, and continues and expands many activities supported by the BSRP. It will also help to ensure Russian commitment to these activities.

*International collaboration* in continued support of Project goals is assured at the technical level through informal operation of the working groups established under the Project and the working structures of HELCOM and ICES, and at the policy level through regular meetings of the HELCOM Heads of Delegation (HELCOM HOD), which include representatives from Ministries of Environment of all nine contracting parties and the EU, and through the ICES Bureau.

*Incentives for continued operation and maintenance* - In addition to commitments made by Governments in the context of the BSAP, the need to comply with EU Directives (for NMS), together with the range of donor supported and commercial financing instruments available, provide strong incentives for farmers to respond to the awareness raising and training provided under the Project, invest in improved on-farm environmental management, and continue to assure proper operation and maintenance (O&M) of investments, except perhaps in Russia. As part of the selection process for AgECS on-farm investments, financial projections were made taking into account O&M costs to ensure the financial sustainability of the investments and the farms. Significant investment support provided by the farmers from their own resources or loans (typically three times or more the grant amount) helps to ensure ownership of the investments and increases the incentives for operation and maintenance. Also, the NEFCO loan agreements require AgECS participants to annually report the nutrient balance until full loan repayment (up to 10 years). Monitoring of nutrient runoff using equipment supplied by the project will be continued by LIUs supported by beneficiary governments. The project also demonstrated local economic incentives for maintaining and managing natural ecosystems and biodiversity by piloting the development and initial implementation of ecological tourism development plans, and providing environmental awareness training. Component 1 institutes have committed to ensuring O&M from their own resources of equipment provided by the project. Investments in monitoring equipment under Component 2 have been integrated into national monitoring programs carried out by MoEs and universities.

*Donor supported programs* that will continue to support progress toward achievement of project goals include the joint Baltic Sea Research Program “BONUS+” under the EU ERA-NET+ funding scheme (EUR 23.3 million for the first three year phase from 2008, EUR 18 million of which is contributions by nine Baltic Sea states including Russia), which supports collaborative research in support of policy development to bring about ecosystem-based management of the Baltic; and the SIDA-financed AEEHLO (Agriculture, Environment and Ecosystem health in Leningrad Oblast) Program which

promotes ecosystem health and sustainable agriculture in Leningrad Oblast, Russia, through 2008. Design of these programs benefited considerably from BSRP experience.

### 3. Assessment of Outcomes

#### 3.1 Relevance of Objectives, Design and Implementation

Project objectives and approaches had and continue to have relevance for the riparian countries of the Baltic Sea in working towards achievement of the overall goal of establishing sustainable management of the Baltic ecosystems and natural resources. Moreover, networks and agreements established with the support of the Project have contributed significantly toward providing the basis for riparians to work together toward this longer-term goal. The project design was technically sound, though institutionally challenging, and fully consistent with the project objectives. Implementation generally followed the path laid out at appraisal, albeit with some delays.

#### 3.2 Achievement of Global Environmental Objective

*The Global Environmental Objective* of the three-phase project was to facilitate the restoration of marine and coastal ecosystems, improve coastal zone management and reduce agricultural non-point source pollution through the introduction of ecosystem-based approaches in selected localities for land, coastal and open sea environmental management in five countries. *The Development Objective* of the Project (originally intended as Phase 1) was to “create some preconditions for application of the ecosystems approach in managing the Baltic Sea Large Marine Ecosystem.” To a significant extent, the Project achieved these objectives, as measured against the key indicators defined at the time of appraisal. Preliminary outcomes of networks and pilots established under the project have contributed to the substance and quality of the BSAP. Additionally, BSRP activities have contributed to the identification and design of an array of working groups, research and environmental management projects and programs that will refine, implement and monitor the impact of actions identified in the BSAP in years to come. Capacity developed by the project and techniques demonstrated also laid the foundation for scaling up of environmental investments by other programs, such as those supported by the EU. Outcomes by component are summarized below. Detailed outputs at the activity level are listed in the table in Annex 2, and outcomes at the activity level are described in Annex 11.

#### **Component 1: LARGE MARINE ECOSYSTEM MANAGEMENT- Rating: Satisfactory.**

The goal of the component was to develop the level of basin-wide collaboration among technical agencies needed to provide guidance to riparian Governments on how to establish sustainable management of the Baltic Sea marine ecosystem. The project achieved this to a significant extent through establishing and operationalizing a network of environmental institutions in all riparian states, enhancing technical capacity, developing and piloting regional approaches to monitoring and assessment, and preparing the Bonus 169 Science Plan for the Baltic, which identifies collaborative research in support of the LME concept that will be financed by the EU.

The component has already delivered valuable results, and the functioning networks of thematic expertise are likely to be maintained through operation of an array of permanent international groups that have since been established<sup>5</sup>. Network participants continue to contribute significantly to implementation and

---

<sup>5</sup> Including the Baltic Ecosystem Health, Productivity, and Fisheries Assessment study groups, as well as working groups on Integrated Assessment of the Baltic (all established under ICES), and a permanent Expert Network on coastal fish monitoring (established under HELCOM).

review of the BSAP, with emphasis on ensuring that targets are both meaningful and achievable. They will also be involved in future monitoring and assessments. Achievements by component activities included the following: a network of Coordination Centers and Lead Laboratories for the themes of ecosystem health, marine productivity and fisheries; installation and operation of monitoring systems for marine ecosystems, including strengthening the “ships of opportunity” system (monitors attached to ferry boats); a permanent working group on assessments, *inter alia*, to provide baseline data for the BSAP; and, demonstrations of salmon restoration and improved agricultural management.

### **Component 2: LAND AND COASTAL MANAGEMENT ACTIVITIES - Rating: Satisfactory**

The objective of this component was to contribute to institutional development and demonstrate improved on-farm nutrient management, and also conservation management of coastal areas, that would lead to reduced nutrient input to the Baltic Sea. Component activities also improved the capacity of participating countries to monitor non-point source pollution, and establish a regional collaborative network for monitoring nutrient runoff and water quality. The Project achieved these objectives to a significant extent through financing pilot demonstrations, training, raising local stakeholder interest, and through establishing a network of technical specialists, which includes approximately 30 individuals from 12 institutions (academic, educational and NGOs) in the four Component 2 beneficiary countries.

The LIU network functions have been mainstreamed into national programs and several regional initiatives of HELCOM (including the BSAP) and the EU, establishing an international platform for continuation of efforts to control non-point source pollution across the region. Specific achievements included: awareness building; training of farmers and advisory service staff; establishment of the AgECS, in collaboration with NEFCO; 20:1 leveraging of GEF funds to provide investment credit for 20 pilot farms; catalyzing investments on a further 50 farms outside the project (farms are typically large private farms with 50 to several hundred head of livestock); automatic monitoring of water quality (especially nutrients) in selected watersheds, together with modeling, to measure the impact of on-farm investments; restoration of grasslands and/or wetlands in four countries, together with training and equipment; development of a pilot ecotourism plan; and, establishment of a Baltic Sea Agri-Environmental Network.

### **Component 3: INSTITUTIONAL STRENGTHENING AND REGIONAL CAPACITY BUILDING - Rating – Moderately Satisfactory**

The objective of this component was to strengthen regional and local capacity to successfully utilize the outputs and recommendations from Component 1 and Component 2 activities to establish sustainable ecosystem-based management of Baltic resources. It included regional capacity building in beneficiary countries (including regional coordination, establishment of the BSSG, and regional public information and outreach); and regional socio-economic assessment. Significant outcomes included strengthened cooperation between the riparian countries and between the three international agencies, and national dissemination activities. However, dissemination was modest (and needs to be continued) and socio-economic assessments, such as the valuation of ecological goods and services, remain to be done. The need for public outreach was generally underestimated. The BSSG was established but appropriately disbanded in 2005 when it was realized that its functions could be more cost-effectively carried out by the HELCOM HOD and ICES Bureau.

### **Component 4: PROJECT MANAGEMENT – Rating - Moderately Satisfactory**

Project management arrangements (see section 2.1) were complex. While this complexity provided for broad ownership and mainstreaming of project goals, the absence of a focal point for overall coordination and operational management of the project ensured that project implementation was inherently challenging (see section 2.2). The complexity of oversight arrangements, the part time involvement of

most members of the team, and the absence of an overall operational manager for the Project contributed to slow start up and disbursement lags, and led to marine and land based activities being developed in relative isolation from one another. At the same time, the strategy of assigning project implementation to regular staff at a broad range of institutions has greatly contributed to the development of regional awareness and ownership of project goals.

### **3.3 Efficiency**

Consistent with GEF requirements, the PAD included an Incremental Cost Analysis, which found that the project was composed of a series of activities necessary for the improvement of transboundary management of freshwater, coastal and open sea ecosystems. The support from the GEF was specifically targeted at covering the transaction and other costs of cooperation between the Baltic riparian countries. Due to the transboundary nature of the issues, and the public goods aspect of the environmental benefits, it is unlikely that beneficiary countries, of their own accord, would have or could have financed the activities supported by the project. The costs therefore were almost certainly incremental, and the project achieved its GEO within the estimated incremental costs.

Because this was a standalone GEF project, additional economic analysis was not required and was not carried out for the PAD. However, considering the significant results achieved by the project with quite a small amount of resources—especially considering that they had to be spread across five countries—the cost effectiveness of the activities is clearly very high. The GEF resources provided were also successful in leveraging more than **twice** that amount from development partners for financing of the project. On top of that, under Component 2 the project contributed toward catalyzing an additional \$40 million of non-project investments in improved on-farm productivity and environmental management technologies.

To further evaluate the cost effectiveness of nutrient reduction investments supported by the project under Component 2, NEFCO carried out an analysis of unit abatement costs for BSRP AgECS investments and compared them with alternatives in Baltic countries. Project investments were estimated to cost €1,057 per ton of Nitrogen outflow prevented, while other agricultural programs in the Nordic area averaged €8,400 per ton and point source mitigation (municipal, industrial and housing) ranged from €15,000 to €106,000 per ton, demonstrating the relative cost effectiveness of investments under the project. (see Annex 3 for more information).

### **3.4 Justification of Overall Outcome Rating - Rating: Satisfactory**

Project objectives and approaches continue to have relevance for riparian countries in working toward achievement of the overall goal of establishing sustainable management of Baltic Sea ecosystems and natural resources. Networks and agreements established under the project have contributed significantly toward providing the basis for riparians to work together toward this longer-term goal. The project achieved the development objective defined at appraisal and, to a significant extent, contributed toward achieving the global environmental objective of what was to be a three-phase operation over six years. As shown in the Data Sheet, Section F and Annexes 2 and 11, actual outcomes were close to 100 percent of expectations in most cases, with only a few significant shortfalls, and are likely to be sustained.

Given the relatively small amount of GEF resources assigned to the project versus its significant achievements, as well as the additional investments leveraged, project resources were efficiently utilized, despite a one-year delay in project completion. At the regional level, the most important example of the early utilization of project results is the BSAP. The BSAP also represents the scaling-up of many of the activities piloted and demonstrated by the project, including serious efforts to reduce eutrophication and halt habitat destruction and the decline in biodiversity.



### **3.5 Overarching Themes, Other Outcomes and Impacts**

#### **(a) Poverty Impacts, Gender Aspects, and Social Development**

Project activities created modest opportunities for employment, local business development and income generation in conjunction with pro-environment works, and development of local eco-tourism under the coastal zone management activities, with the likelihood of more substantial opportunities from follow-on programs. The increased employment, in turn, is expected to have a positive impact on poverty, particularly in rural areas.

#### **(b) Institutional Change/Strengthening**

Other impacts on longer-term capacity and institutional development include: anchoring the LME concept in future scientific research in the Baltic region under the Bonus 169 Science Plan; endorsement of the LME concept by the riparian countries and the EU; the development of a replicable model in applying the ecosystem based approach to management of LMEs; introduction of environmental considerations in fisheries policy-making (in Latvia); establishing international collaboration (regional and global) as routine among scientific and educational institutions and agencies in the beneficiary countries; involving stakeholders in policy development and implementation in the agricultural sector; acceleration of improvement of agricultural watershed monitoring capacities by five years in Estonia, Latvia and Lithuania; strengthening the capacity of the beneficiary countries' agricultural advisory services in both environmental farm management and innovative investment and financing mechanisms; attitude change among the farming community to acknowledge the environmental impact of farming practices as a serious issue; and, marine monitoring and assessment capacity upgraded in 12 institutes in the five beneficiary countries.

#### **(c) Other Unintended Outcomes and Impacts**

Other unintended – but positive - impacts include: Lithuanian accession to the ICES Convention; establishment of seven new permanent scientific study and assessment groups; and raising interest and reducing the doubts of commercial banks about potential risks associated with issuing credits to farms for environmental investments.

### **3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops**

Not applicable.

## **4. Assessment of Risk to Development Outcome - Rating: *Negligible to Low***

There is considered to be little or no risk that the development outcomes of the project will not be maintained over time, as the principles and activities piloted by the project are now being mainstreamed into national and regional programs. The sustainability of development outcomes would have been reinforced through the planned Phase 2, plans for which were withdrawn after three beneficiary countries became ineligible for GEF funding after graduating from the World Bank. Nevertheless, as discussed elsewhere, the project made significant contributions to the development of the BSAP, which is likely to have strong national and international support. For the four EU NMS that benefited from the project, EU accession has brought with it stringent requirements to meet environmental obligations on the national level through the EU Nitrates Directive, Water Framework Directive. These requirements have given added impetus to the mainstreaming of pollution reduction and water quality management and monitoring activities supported by the Project into national programs, and virtually guaranteed that they will be sustained over time. On a regional level, the new EU Marine Strategy Directive foresees an action plan for each European regional sea, and the adoption of the BSAP places the Baltic in an advanced position in this regard. The BSAP also confirms the Russian Federation's commitment to these activities. The network of scientists established by the Project will continue to work within the framework of HELCOM and ICES, and to be supported by the Bonus+ program, to which the Project contributed.

The risk of non-sustainability should be considered higher in Russia. Northwest Russia has been identified as a priority for reduction of non-point source pollution, in particular from agriculture. In this area, there are many examples of new investments in large livestock production operations, both by domestic and foreign investors. At the same time, there is no analogue to the EU Nitrates Directive to drive nutrient pollution reduction measures. In addition, the Project found the institutional setup less conducive to the promotion of good agricultural practices, since there is no real agricultural extension service. The recently approved “Russian State Program on Agricultural Sector Development and Management of Agricultural Markets from 2008-2012” will provide, among other things, subsidies for livestock production and credit for agricultural investments. This is a major program, and it will be important to complement the productive investments it supports with knowledge and investments in environmentally friendly practices. The integration of environment into this program could be greatly facilitated by a new project dealing with agricultural pollution control supported by the Bank/GEF or other development partners.

## **5. Assessment of Bank and Borrower Performance**

### **5.1 Bank**

#### **(a) Bank Performance in Ensuring Quality at Entry - Rating: Satisfactory**

Section 2.1 has described the factors outside the control of the Bank which led to delays in preparation and appraisal, including the decision to split the original project concept into three phases. The appraisal team’s work appears to have been thorough and technically sound, based on the Bank’s prior work with HELCOM. Setting of objectives, the logframe, consideration of lessons learned, the incremental cost and safeguards analyses were particularly well done. However, the breadth of the project and the multiplicity of implementing agencies did pose implementation and supervision challenges.

#### **(b) Quality of Supervision - Rating: Satisfactory**

In the nine years between identification and completion, the project had three task team leaders. While the Recipient reported differences in style, changes in leadership did not cause significant disruption to supervision. Successive team leaders participated in supervision missions with their predecessors prior to taking over responsibility. The large geographical spread of project activities and partner institutions, and the closing of Bank Country Offices in three beneficiary countries before project closing, provided a challenge to supervision and made it difficult for the Bank team to visit all key sites frequently. However, the supervision effort was supplemented by continuous contact with the project team, and supervision missions included an appropriate mix of expertise as well as local staff who were continuously involved in monitoring and supporting project activities. Following the MTR in 2005, the Bank team identified the need for greater focus on results and analyzed the underlying reasons for slow disbursement rates, and management responded by agreeing to an extension of the closing date.

#### **(c) Justification of Rating for Overall Bank Performance - Rating: Satisfactory**

Overall performance of the Bank is assessed as satisfactory because of the comprehensiveness of design of this challenging and moderately risky operation, as well as the quality and intensity of supervision. Collaboration between the Bank, other donors and participating countries was of critical importance in catalyzing the development of regional networks that are continuing to further the objectives of the project following its completion. At \$567,000, Bank preparation and supervision costs were 11 percent of the disbursed grant amount, which is not unexpected for a small but complex GEF project. If leveraged funds are taken into account, the percentage is much smaller.

## 5.2 Borrower

### (a) Government Performance - *Rating: Satisfactory*

All beneficiary and participating country Governments contributed significantly to the success of project preparation and its achievements<sup>6</sup>. In particular, Governments participated in project oversight in the context of HELCOM and ICES, which also provided the vehicle to mainstream, institutionalize and operationalize many of the findings and recommendations of the BSRP in the context of the BSAP.

### (b) Implementing Agency or Agencies Performance - *Rating: Satisfactory*

HELCOM, in collaboration with ICES, with the support of component coordinators based in Sweden, Latvia and Denmark, effectively oversaw coordination and implementation of the project in all participating countries. Due to the large number of participating institutions and the complexity of arrangements for project management, project implementation was initially slow. However, once the networks had been established, implementing agencies were responsive to the Bank's guidance on the need to improve disbursement rates and focus on results. This shift from establishing to operationalizing networks, and from piloting to mainstreaming environmental mitigation activities, is epitomized in the adoption of the BSAP.

### (c) Justification of Rating for Overall Borrower Performance - *Rating: Satisfactory*

Implementation of the BSRP would not have been possible without the leadership and coordination of HELCOM (in cooperation with ICES), and the collaboration and support of participating Governments. In moving to implement the BSAP, HELCOM is being proactive in working with participating countries through the networks established under the BSRP to develop and monitor achievements against time-bound benchmarks of progress, and define clear linkages between these benchmarks with monitorable indicators of the impacts of actions under the BSAP and the overall health of Baltic Sea ecosystems.

## 6. Lessons Learned

As the first project in the region to implement the LME approach, and one of the few to successfully apply a “unified project” approach (as opposed to a “partnership framework” competitive grants approach with separate, stand-alone projects in each country) to a regional sea, the Project has a number of important lessons to offer:

- *The “unified project” approach is likely to work best with a small number of countries with similar objectives* - A “unified project” like the BSRP increases the likelihood that approaches to achieving the project's goals are consistent and coordinated across the participating countries, and also facilitates international cooperation and knowledge sharing. However, a “unified project” also has certain disadvantages compared to the partnership framework approach (as in the case of the Black Sea/Danube), which allows for more flexibility in individual country programs (particularly appropriate when there is a high degree of heterogeneity across countries), greater ease of implementation within a country, and perhaps a higher degree of ownership by countries.
- *Different riparian countries may require different approaches* - Even when using the “unified project” model, it is important to recognize that there can be significant differences in culture, history, economics and politics across countries that necessitate different approaches to different beneficiary

---

<sup>6</sup> This is in contrast to the situation in most regional seas programs where the Bank is involved.

countries. For example, the incentives for farmers to implement nutrient management programs in EU member states can be very different from those in non-EU countries.

- *Strong central coordination is necessary to ensure delivery of results in regional projects* – Even when dealing with countries and institutions with good capacity, such as in this project, a dedicated, empowered project manager is still needed to coordinate activities across the various countries, components and local institutions.
- *Limited GEF resources can still have a major impact* - If the policy environment is conducive, and participants are committed, a great deal can be achieved with a relatively small financial allocation by leveraging local skills and resources and contributions from development partners.
- *The implications of political-economic changes must be assessed, even for environmental projects* - In this case, major political-economic shifts, such as four of five beneficiary countries joining the EU, created both opportunities and challenges for implementation, and it is important to recognize such factors during design in order to effectively harness such forces.
- *Implementation by existing institutions helped build ownership and provided for sustainability of the collaborative networks* - The Project was fortunate to have a recognized, agreed-upon governing body such as HELCOM in place for protection of the marine environment in order to provide the institutional structure for implementation. For Component 1, working with ICES was a major advantage. For Component 2, working with existing extension services has aided mainstreaming.
- *When applying the LME approach, a great deal of effort is necessary if links are to be created between land and sea components* - In the Project, one way that was discovered to do this was by using monitoring of nutrient flows into the watershed, and the subsequent impact on the marine environment. This also serves as a powerful awareness-raising tool.

The lessons of the Project have been incorporated into the BSAP, Bonus+, and other programs whereby they will inform improved management of the Baltic environment in the future. Through these initiatives, the Baltic is also providing a pioneering example for implementation of the new EU Marine Strategy Directive, as well as global commitments made under the Convention on Biological Diversity, the World Summit on Sustainable Development and the Rio Declaration.

## **7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners**

### **(a) Borrower/implementing agencies**

The client, HELCOM, has reviewed the draft ICR and commented that it is “a comprehensive and well-prepared report.” HELCOM also provided detailed comments in the form of “track changes” inserted in the text, which have been reviewed by the Bank ICR team and taken into account where appropriate in finalizing the ICR (these detailed comments are available in the project’s files). In addition, HELCOM along with the other BSRP implementing agencies prepared a joint statement on the project’s achievements and future impetus, which was officially approved by the HELCOM Heads of Delegation, including all BSRP beneficiary countries, at their meeting on January 22-23, 2008. The statement is included in Annex 7. The Bank team generally agrees with the statement, which is quite positive about the BSRP, and would support the interest expressed by the implementing agencies of exploring ways to continue collaborating on the activities begun under the project.

### **(b) Cofinanciers**

SLU produced a completion report on Component 2 activities for SIDA. A summary of the report is included in Annex 8. In general, the report is quite positive about Component 2 results, and the Bank team agrees with the findings. One issue that is not mentioned in the summary of the report, but which appears later in the “Deviations” section, is the slower-than-expected progress in northwest Russia, where all agree that more work is needed.

**(c) Other partners and stakeholders**

## Annex 1. Project Costs and Financing

### (a) Project Cost by Component (in USD Million equivalent)

Components	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
<b>COMPONENT 1. LARGE MARINE ECOSYSTEM MANAGEMENT ACTIVITIES</b>	<b>5.62</b>	<b>9.65</b>	<b>172%</b>
<b>COMPONENT 2. LAND AND COASTAL MANAGEMENT ACTIVITIES</b>	<b>4.99</b>	<b>4.77</b>	<b>96%</b>
<b>COMPONENT 3. INSTITUTIONAL STRENGTHENING AND CAPACITY BUILDING</b>	<b>0.15</b>	<b>0.01</b>	<b>7%</b>
<b>COMPONENT 4. PROJECT MANAGEMENT</b>	<b>1.36</b>	<b>1.56</b>	<b>115%</b>
<b>Total Baseline Cost</b>			
Physical Contingencies	0.00	0.00	
Price Contingencies	0.00	0.00	
<b>Total Project Costs</b>			
Project Preparation Facility (PPF)	0.00	0.00	
Front-end fee IBRD	0.00	0.00	
<b>Total Financing Required</b>	<b>12.12</b>	<b>15.26</b>	<b>126%</b>

### (b) Financing

Source of Funds	Type of Cofinancing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower		1.79	0.90	50%
Global Environment Facility (GEF)		5.50	5.43	99%
FINLAND, Govt. of (Except for Min. for Foreign Affairs)		2.16	0.30	14%
US, Govt. of		0.50	0.60	120%
NORWAY: Ministry of Foreign Affairs		0.14	0.00	0%
SWEDEN: Swedish Intl. Dev. Cooperation Agency (SIDA)		1.05	1.48	141%
Foreign Multilateral Institutions		0.98	7.28	743%

## Annex 2. Outputs by Component

### COMPONENT 1

**Objective:** *A system for monitoring, assessing and evaluation of the status of the Baltic Sea marine resources created and ready for application*

<b>Output Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>	<b>End of Project Achievement</b>
Network of Coordination Centres and Lead Laboratories established according to the 5-module approach of the LME concept	0%	100% (Phase I)	<p>100%: 5 Coordination Centres, 9 Lead Laboratories in 8 Partner Institutes in 5 countries;</p> <p>A network of more than 20 institutions from all nine riparian countries has been developed and is continuing to collaborate informally and formally under the aegis of permanent study groups formed under ICES, and working groups that inform and advice the HELCOM governments on priorities for management of the activities affecting the marine ecosystem of the Baltic Sea;</p> <p>LME concept introduced permanently also in the scientific research in the Baltic region through the newly developed BONUS-169 Science Plan for the Baltic.</p>
A series of joint workshops/seminars conducted (# of events)	0	No target	<p>49 events between 2004-2007;</p> <p>Supports continuous dialogue and integration of scientific institutions across the Baltic Sea and the North Atlantic;</p> <p>Five new permanent ICES Study Groups established by the project: SGPROD, SGEH, SGFF, SGBSM, WKIAB, as well as two under HELCOM (Coastal fish, Fish diseases), thereby the integrated ecosystem based assessment approach is assumed in regular ICES and HELCOM work;</p> <p>Initiated integration of environmental aspects and the role of productivity into fisheries assessment. This is a significant first step to an environmentally sustainable management of Baltic Sea fisheries.</p>
Remove obstacles for beneficiary country	40% of optimum	No target	Participation increased to optimum with all relevant requests for financial support

<b>Output Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>	<b>End of Project Achievement</b>
scientists' participation in regional scientific workshops, seminars and regular working groups	in 2004.		<p>approved.</p> <p>Integration of Eastern scientists in the regional work expands the applicability of the ecosystem approach to include all riparian countries.</p> <p>Reasons stated for non participation (in 2004): 1) Lack of funds (57%), 2) Lack of contacts (36%), 3) Lack of scientific capacity (7%). During BSRP, these obstacles were removed. However, future is dependent on increased funding from national or international sources.</p>
Amount (in USD) used to support beneficiary country scientists' and students' participation in regional collaboration on the LME approach	0	Initial budget USD 154 000	<p>GEF: USD 200 000; Amount of non-GEF funding leveraged from participating countries: USD 464 000</p> <p>Insufficient funding was stated as a reason for non participation prior to BSRP by 57% of respondents to a baseline survey among beneficiary countries (2004). Therefore, the impact of additional funding is considerable in creating and maintaining a truly regional scientific network.</p>
Joint monitoring program development	0	No target	<p>1) Coastal fish monitoring programme updated to enable better growth analysis;</p> <p>2) HELCOM monitoring is made more sensitive to occurrence of invasive species;</p> <p>3) Guidelines for phytobenthos monitoring prepared, guidelines for zooplankton monitoring reviewed;</p> <p>4) Initiated testing of ECOPATH modeling for comparative productivity analysis;</p> <p>5) Zooplankton modeling improved by methodological intercomparison and initiation of ring test.</p> <p>The newly established regional networks are developing standardized methodologies and regional collaborative approaches to monitoring marine ecosystem parameters, including <i>i.a.</i> fish stocks, plankton, benthos and nutrients. The network enables further work on integrated and holistic assessments and supports future modeling work Target for Phase I achieved, project target likely to be achieved in the medium term.</p>



<b>Output Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>	<b>End of Project Achievement</b>
Contribution to thematic assessment procedures	0	No target	- assessment of coastal fish - initial eutrophication assessment in support of HELCOM EUTRO -project - contribution to indicator-based assessment of biodiversity of selected Baltic Sea sub-basins which was carried out as a pilot study and is being continued in the HELCOM BIO -project
Selected monitoring equipment procured	0%, \$0	Initial budget USD 1 000 000	85%, USD 1 050 000 spent. Difference explained by price increases and increase in GEF financing share for certain contracts;  Laboratories in the beneficiary countries are technically capable of performing monitoring and data collection work by regional standards.
Initial near shore and open sea surveys conducted	0	2	2 surveys conducted during the project; Outcome: 1) Integration of fisheries surveying with collection of oceanography, productivity and ecosystem health data; 2) Additional information gathered for coastal key species and their dynamics; 3) Regular surveys expanded in to areas not covered before.
Ships of opportunity (SOOP) contracted	3 SOOP lines across Baltic: North-South, Northern cross-sectional, Gulf of Finland cross-sectional	To cover all sub-sections of the Baltic proper and Gulf of Finland by end of Phase III	1 new established, 1 upgraded; Increase coverage of Baltic Sea by 20%.  The designated area is now covered with SOOP lines with the exception of a second diagonal line crossing Baltic proper.  80% of optimum coverage is now achieved.
Salmon river restoration action plans prepared, # of rivers under management plans	0	3 (Phase III)	Salmon river restoration plans created for 3 rivers in Latvia.
Salmon river restoration at least in 3 rivers (Phase III)	No restoration on-going / 0	Restoration activities under way in 3 rivers / 3	1, 7 out of 15 hectares planned restored, monitoring ongoing;  Spawning increased and restoration activity

<b>Output Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>	<b>End of Project Achievement</b>
			successful. Work proven replicable and will be upscaled.
Participating countries reach consensus on common Environmental Quality Indicators	No indicators developed	Indicators developed and assessed for eutrophication, biodiversity and effects of contamination, productivity, coastal fish	80% Indicator set ready for assessment of: -eutrophication, -coastal fish -primary productivity;  Indicators under further development for: -biodiversity and effects of contamination, lower trophic level productivity
Scientific assessment of coastal fish/fish communities published	No coastal fish assessment in the Baltic	No target	Coastal fish assessment published in 2006 (HELCOM BSEP 103A & 103B). Species of coastal fish assessed: cod, herring, sprat and salmon. Assessment of flounder not complete.
Participation of BSRP recipient country scientists/beneficiaries in cooperative international (incl. EU) project applications, specifying networks and ideas emerged from the BSRP meetings	No such activity/no data	No target	Participation in the EU BONUS+ project on preparation of the Baltic Science Plan and the BONUS ERA-NET application. Experiences from preparation of the GEF-BSRP have been transferred to benefit the preparation of other LME projects such as China Sea and Gulf of Mexico LME's.

## COMPONENT 2

**Objective:** *Environmental sound farming techniques resulting in reduced nutrient run-off piloted*

<b>Output Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>	<b>End of Project Achievement</b>
<b>Goal:</b> <i>Increased awareness in the agricultural sector on environmentally sustainable farm management practises</i>			
Farmers participate in introductory environmental seminars in all beneficiary countries	Some information was earlier distributed through the advisory services	Seminars held in all rural districts of the beneficiary countries	Participation in total by approximately 1200 farmers;  Introductory seminars held in Estonia, Latvia, Lithuania and Russia (Kaliningrad region).
Farms/farmers participated in EMS courses offered by BSRP	0 farms	50 farms	187 farms/farmers  At least 50% of all district advisors in Agricultural Advisory/Extension Services in Estonia, Latvia and Lithuania trained;  Target was exceeded by over three-fold. EMS courses turned out to be more attractive than anticipated, possibly because of they provided information about a variety of funding possibilities, not just the BSRP credit scheme. Farmers are interested to realize that they can save money, increase productivity and preserve the environment all at the same time.  EMS courses developed by BSRP were accepted as one possible training mandatory to qualify for payment from EU Rural Development Programs and are now thus included as modules in the training package offered by the Agricultural Extension Agencies in the three Baltic states.
Farms/farmers benefiting from the BSRP agri-environmental credit scheme	0	25-30 (GEF Grant available for 22-25 farms, additional farms without GEF funds)	80% - 18 farms received a grant, 2 farms made investments without GEF grant but with NEFCO loan – total 20s farms completed the BSRP AgECS scheme.  Additionally 3 farms in Latvia and 3 in Kaliningrad region did not complete investments;; Also, the training provided other farmers with the means to access other sources of financing;  Total environmental investment amount for the

<b>Output Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>	<b>End of Project Achievement</b>
			20 farms in the BSRP scheme is EUR 3 Million. The total land area of these farms is 19179 hectares.
Number of farms/farmers completing environmental investments outside BSRP credit scheme as an outcome of participating in the BSRP EMS courses	0	No target	48;  The project was also able to raise the interest of farmers to finance their environmental investments with other resources e.g. commercial banks and own resources. The detailed business planning performed as part of the EMS schemes lowered the risks in financing of the agri-environmental investments. Thus, the project was able to create a replicable mechanism incorporating agri-environmental training and financing. Magnitude of investments through other sources was worth of EUR 13 million and covered 34 000 hectares of farmland;  Hence, with approximately USD 1 M GEF investments in agricultural interventions, the project was able to leverage a total of approximately USD 20 M in farm environmental investments alone.
Investments target reduction in N and P losses from farms: - amount of N & P reduced annually - low unit abatement cost (UAC) - reduction with respect to number/type of animal units - % of environmental investments in the programs	No reduction / no information	No target	BSRP 21 farms: Annual N reduced: 238 000 kg, Annual P reduced: 13 000 kg; Mean UAC for N (21 farms): USD 3 500/t, Mean UAC for P (16 farms): USD 24 600/t Environmental investment EUR 4.2 Million (37%)  37% investment share in environmental management can be considered good taking into account the participating countries' EU membership and progress towards increasing production.
High level of sustainability in the farm investments: - % of non-public financing	n/a	No target	48 farms out of 69 farms completed environmental investments without grant support from BSRP;  Probable sustainability is high as a majority of the farms completed the investment without

Output Indicators	Baseline	End of Project Target	End of Project Achievement
			benefiting from the grants,. The total BSRP grant value was only 5,5 % of the total environmental investments of EUR 16 million made in Phase1.
<b>Goal:</b> <i>Establish a system for monitoring and assessment of non-point source pollution originating from farms</i>			
Surface and groundwater monitoring stations established in demonstration watersheds - # of monitoring stations/posts/sites upgraded and constructed	0	No target	2 new monitoring stations constructed (Lithuania, Estonia), 1 renovated and upgraded (Latvia);  4 sets of monitoring equipment purchased (Estonia, Latvia, Lithuania, Russia-Kaliningrad region)
Baltic Regional Agri-Environment Assessment Network (RAN) established with the aim to harmonize monitoring and assessment of diffuse source pollution	The network does not cover Eastern Baltic countries nor Northwest Russia and information on nutrient flows from agriculture is not sufficiently available across the region	The Baltic states are integrated in the network and their technical and human capacity is at appropriate level.	3 new monitoring stations are operational and data recording has begun, network is established, possesses high scientific capability and meets regularly. Quality and frequency of data submitted for HELCOM Pollution Load Compilations (PLC) improved.  By end of Phase I (June 2007), agreement to use FYRIS model (for modeling loads from middle-size rivers) and Soil NDB (for modeling field drainage) region-wide has been reached. Harmonization of modeling work across the Baltic and with Russia is ongoing in the framework of the HarmoBALT project.  Monitoring of agricultural pollution is now sustained nationally and integrated into the national monitoring programs according to the requirements of the EU Water Framework Directive. Better data is also available for continued research and education which contributes to the sustainability of these investments.
Model simulations of the water quality in pilot mid-size rivers	No simulations performed	No target	Pilot simulation on Berze river, Latvia performed. Preliminary water quality results available?
Sustainability in maintaining operation of			Monitoring and modelling activities are relevant, applicable, attractive and linked to educational and research activities across the

<b>Output Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>	<b>End of Project Achievement</b>
monitoring stations			region;  Consistent additional funding from national or international sources needed to sustain monitoring programs as an optimal desired level.
<b>Goal: Community based coastal zone management activities are promoted</b>			
Local training and awareness activities held in all beneficiary countries - # of participants in training courses and educational events	No activity	No target	120 schools, 150 teachers, 16 000 pupils, summer schools, 15 seasonal seminars; 120 out of 300 secondary schools in Kaliningrad region trained;  Most trained pupils have taken part also in parallel activities by BirdLife International and several have continued to pursue environment-related studies in post-secondary education;  Activities are sustained by leveraging budget support from regional government.
Demonstration projects for maintenance of semi-natural grasslands completed	Some activities ongoing as a result of the MLW of HELCOM PITF	Grasslands / wetlands maintained for animal grazing and nutrient retention in all three Baltic states	100% of the selected area covered;  Demonstration projects completed in Western Estonia, Latvia and Lithuania (120 ha) and activities have been showcased to local stakeholders.
Environmental tourism development plan created for Lake Engure Nature Park in Latvia to demonstrate sustainable use of natural resources while maintain a viable local community	No strategy for environmental tourism	Original target: small business incubator in Mersrags, Latvia, changed to preparation of tourism development plan for Lake Engure National Park, Latvia	Tourism plan completed, target achieved; Implementation of tourism plan started with small investments; Replication of tourism plan started.
Demonstration restoration work in selected rivers: - # of demonstration	No activity	One ecologically important river restoration	Lower section of Paadrema river (Estonia) restored as crayfish and sea trout habitat;  Salmon river restoration under Component 1 serves the same function.

<b>Output Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>	<b>End of Project Achievement</b>
rivers, - % of Paadrema river restored for seatrout and crayfish spawning ground		project is established	
Demonstration sites established in wetlands: - # / area of demonstration wetlands	No wetland restoration activity demonstrated	Wetland restoration activity demonstrated	Coastal wetland/meadow restoration activity demonstrated in 3 countries.  Estonia: 240 ha of coastal wetlands/meadows restored in Kihnu Strait Marine Park,  Latvia: 80 ha restored wetland in Lake Engure area;  Lithuania: Aukstumale bog restored as wetland
Nature guides trained	No nature guides	No target	12 local nature guides trained in Lake Engure Nature Park;  The local guides are essential in supporting the sustainable management of the area and to disseminate information about the interaction of the environment and local community for visitors.

### COMPONENT 3

**Objective:** *Increased awareness among stakeholders of the value of the Baltic Sea ecosystem goods and services at the regional, national and local level*

<b>Output Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>	<b>End of Project Achievement</b>
<b>Goal:</b> <i>Awareness and coordination of the project activities and their linkage to regional and national processes and programmes</i>			
Baltic Sea Steering Group (BSSG) is established and operational	No steering group	Project activities are steered on a regional forum	BSRP was made a permanent agenda item at HELCOM Head of Delegations (HOD) and ICES Bureau meetings.
A series of meetings on regional administrative, socioeconomic and technical matters	No meetings	No target	More than 50 meetings within the frameworks of HELCOM and ICES;  A series of regional administrative meetings held under Component 4;

<b>Output Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>	<b>End of Project Achievement</b>
conducted			Coordination Centre on Socio-economy participated in several regional meetings and in training on governance of the LME's;
Regional awareness and dissemination of project results	No activity	No target	BSRP was featured regularly in international publications, websites of HELCOM and ICES;  BSRP was presented and showcased in selected regional and global symposia.

#### **COMPONENT 4**

**Objective:** *Project management is effective*

<b>Output Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>	<b>End of Project Achievement</b>
Effective structure created and operational	None	Project management is sound and well monitored	Project management was decentralized while overall responsibility for the GEF TF Grant Agreement remained with HELCOM PIT.
Financial management system and procedures are agreed and established	None		Financial management system and procedures were established and amended on need-basis.



### Annex 3. Economic and Financial Analysis

(including assumptions in the analysis)

Consistent with GEF requirements, the PAD included an Incremental Cost Analysis of the Project. The analysis found that the Project was composed of a series of activities necessary for the improvement of transboundary management of freshwater, coastal and open sea ecosystems. The support from the GEF was specifically targeted at covering the transaction and other costs of cooperation between the Baltic riparian countries. Due to the transboundary nature of the issues, and the public goods aspect of the benefits of improving the Baltic Sea environment, it is unlikely that beneficiary countries, of their own accord, would have or could have financed the activities supported by the project. The costs therefore were almost certainly incremental, and the project achieved its GEO within the estimated incremental costs.

Because this was a standalone GEF project, additional economic analysis was not required and was not carried out for the PAD. However, considering the significant results achieved by the project with quite a small amount of resources—especially considering that they had to be spread across five countries—the cost effectiveness of the activities is clearly very high. The GEF resources provided were also successful in leveraging more than twice that amount from development partners for financing of the project. On top of that, under Component 2 the project contributed toward catalyzing an additional \$40 million of investments in improved on-farm productivity and environmental management technologies with the support of resources from non-project sources.

To further evaluate the cost effectiveness of nutrient reduction investments supported by the project under Component 2, NEFCO carried out an analysis of unit abatement costs (UAC) for the Project investments and compared them with alternatives in the Baltic. The results, summarized in the table below, demonstrate the relative cost effectiveness of investments under the project compared to alternatives.

#### Unit Abatement Costs for nitrogen emission reductions from various Nordic Sectors and BSRP

<b>BSRP</b>	<b>1 057 €t</b>
Nordic Municipalities	15 000 €t
Nordic Industries	93 000 €t
Nordic Private Housing	106 000 €t
Nordic Agriculture	8 400 €t

Source: NEFCO

The table on the following page presents details of the on-farm investments supported by the BSRP Agri-Environmental Credit Scheme (AgECS), including UAC for nitrogen and phosphorous.

## BSRP Agri-Environmental Credit Scheme On-Farm Investments

Farm	Other investm. [EUR]	Environm. investm. [EUR]	Total Investm. excl VAT [EUR]	Financing [EUR]						UAC N €t	UAC P €t	Annual ton N	Annual ton P
				Nefco loan	Grant	Other loans	EU	Own resources	Total				
<b>Estonia</b>													
Sörenomme / Arvo Allese	28,952	30,614	59,566	24,734			24,734	10,098	59,566	1,194	7,646	1.7	0.3
Härma / Vello Kukk	62,828	80,160	142,989	90,755	24,286		15,978	11,970	142,989	5,629	0	1.5	0.0
Arme Turvas	126,865	144,440	271,305	77,397	23,200	22,880	106,924	40,903	271,305	6,696	0	2.6	0.0
Myyriku	996,255	375,161	1,371,416	200,043	23,008	738,883	224,777	184,705	1,371,416	972	0	32.8	0.0
Kehtna	920,213	357,062	1,277,274	45,869	24,926	962,446	172,689	71,345	1,277,274	160	5,666	116.4	3.3
Mäo	478,187	179,017	657,203	63,912	23,008	329,976	135,365	104,943	657,203	1,720	81,188	9.4	0.2
Simmo-Pavli	180,934	100,725	281,659	24,606	96,698	116,255	44,099	281,659	8,387	0	1.4	0.0	
Tarto	3,643	65,382	69,025	24,926	8,948	3,835	31,317	69,025	4,406	0	1.6	0.0	
Selja	761,571	284,407	1,045,978	24,926	669,155	194,036	157,862	1,045,978	2,517	48,318	9.6	0.5	
	<b>3,559,447</b>	<b>1,616,967</b>	<b>5,176,415</b>	<b>502,710</b>	<b>192,885</b>	<b>2,828,985</b>	<b>994,593</b>	<b>657,241</b>	<b>5,176,415</b>			<b>177.1</b>	<b>4.3</b>
<b>Latvia</b>													
Kraujas	59,914	53,161	113,075	40,517	24,138	9,675	25,244	13,500	113,075	3,969	13,623	1.3	0.4
Leias Krastini	117,411	43,822	161,233	29,741	24,425			107,066	161,233	2,269	9,385	1.5	0.4
Kundzini	150,991	93,211	244,203	33,125	25,259	50,323	74,432	61,063	244,203	4,239	31,877	2.3	0.3
Lielmeztotne	796,200	134,339	930,539	25,302	574,713	156,552	173,973	930,539	4,397	19,286	2.9	0.7	
Madaras	68,642	116,487	185,129	25,043	25,244	63,326	71,516	185,129	6,094	15,996	2.1	0.8	
	<b>1,193,158</b>	<b>441,020</b>	<b>1,634,178</b>	<b>103,384</b>	<b>124,167</b>	<b>659,955</b>	<b>319,555</b>	<b>427,118</b>	<b>1,634,178</b>			<b>10.1</b>	<b>2.5</b>
<b>Lithuania</b>													
Kaveckiene	116,748	128,837	245,585	82,252	25,500		103,684	34,149	245,585	7,500	92,502	1.9	0.2
Bauzys	70,685	103,797	174,482	34,175	23,622		73,144	43,541	174,482	14,606	102,242	0.8	0.1
Jasiulis	86,671	79,156	165,827	82,387			82,101	1,338	165,827	1,342	11,684	2.4	0.3
Liutkevicius	83,411	123,089	206,499		23,622	43,733	50,104	139,144	256,603	2,042	18,224	6.8	0.8
Drasutaiciai	42,345	124,531	166,876	92,389	23,622			50,866	166,876	1,242	26,609	5.1	0.2
	<b>399,859</b>	<b>559,410</b>	<b>959,269</b>	<b>291,203</b>	<b>96,366</b>	<b>43,733</b>	<b>309,033</b>	<b>269,038</b>	<b>1,009,373</b>			<b>17.0</b>	<b>1.5</b>
<b>Russia</b>													
Gomantovo	375,559	432,412	807,971		24,706	694,059		89,206	807,971	580	4,152	32.2	4.5
	<b>375,559</b>	<b>432,412</b>	<b>807,971</b>	<b>0</b>	<b>24,706</b>	<b>694,059</b>	<b>0</b>	<b>89,206</b>	<b>807,971</b>			<b>32.2</b>	<b>4.5</b>
<b>Tot</b>	<b>5,528,023</b>	<b>3,049,809</b>	<b>8,577,832</b>	<b>897,296</b>	<b>438,124</b>	<b>4,226,732</b>	<b>1,623,181</b>	<b>1,442,603</b>	<b>8,627,936</b>	<b>1,057</b>	<b>19,505</b>	<b>236.3</b>	<b>12.8</b>

Source: NEFCO

Overview of BSRP agri-investments containing investments by farm, annual costs (5 %, 10 y amortization), savings by investment, UAC (Unit Abatement Cost) for N and P and amount nutrients reduced. In the lowest row total investment, total annual cost, total savings, average UAC and total amounts of reduced N and P are presented.

#### nex 4. Bank Lending and Implementation Support/Supervision Processes

##### (a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
<b>Lending</b>			
<b>Supervision/ICR</b>			
John Bryant Collier	Operations Officer	AFTNL	
Solvita Klapare	E T Consultant	ECSSD	
Alyona Korneva	Consultant	ECCU1	
Galina S. Kuznetsova	Sr Financial Management Specialist	ECSPS	
Barbara Letachowicz	Operations Officer	ECSSD	
Aziz Mamatov	E T Consultant	ECSPS	
Alexandre Roukavichnikov	Procurement Specialist	ECSPS	
John W. Fraser Stewart	Sr Natural Resources Mgmt. Specialist	ECSSD	
Sandro Zanusi Michiei	Lead Financial Management Specialist	ECSPS	

##### (b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
<b>Lending</b>		
FY97		11.24
FY98		13.33
FY99		54.38
FY00		57.47
FY01		99.63
FY02		46.41
FY03		17.45
FY04		0.00
FY05		0.00
FY06		0.00
FY07		0.00
<b>Total:</b>		299.91
<b>Supervision/ICR</b>		
FY97		0.00
FY98		0.00
FY99		0.00
FY00		0.00
FY01		0.00

FY02		0.00
FY03		8.36
FY04		39.81
FY05		40.35
FY06		72.95
FY07		105.10
	<b>Total:</b>	266.57

**Annex 5. Beneficiary Survey Results**  
(if any)

**Annex 6. Stakeholder Workshop Report and Results**  
(if any)

## **Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR**

The client, HELCOM, has reviewed the draft ICR and commented that it is “a comprehensive and well-prepared report.” HELCOM also provided detailed comments in the form of “track changes” inserted in the text, which have been reviewed by the Bank ICR team and taken into account where appropriate in finalizing the ICR (these detailed comments are available in the project’s files). In addition, HELCOM along with the other BSRP implementing agencies prepared a joint statement on the project’s achievements and future impetus, which was officially approved by the HELCOM Heads of Delegation, including all BSRP beneficiary countries, at their meeting on January 22-23, 2008. The statement is included below:

### **Joint statement of HELCOM, ICES, SLU, WWF and NEFCO about the achievements and future impetus of the World Bank/GEF funded Baltic Sea Regional Project**

The start up of the Baltic Sea Regional Project (BSRP) coincided with developments at the international level and the decision within HELCOM to apply an ecosystem based approach to the management of human activities impacting on the marine environment.

The BSRP design gave an ample opportunity to:

- underpin the linkage between terrestrial, coastal and marine areas;
- ensure integration of environmental objectives into sector policies;
- build management actions upon increased awareness at sector level on environmental considerations and investment needs and cost-effective investments;
- enhance the basis for informed decision-making, by setting up Baltic relevant activities and ensuring Baltic-wide participation in these and other HELCOM and ICES activities;
- contribute to the development of parameters (indicators and targets) that give explicit tools to monitor the efficiency of management decision;
- strengthen the co-operation linkages between the participating organizations.

The BSRP linked up closely to HELCOM and ICES activities and fundamentally contributed to the development of the HELCOM Baltic Sea Action Plan, which was adopted on 15 November 2007 by HELCOM ministers and a representative of the European Community.

The HELCOM Baltic Sea Action Plan is not only a fulfilment of the obligations under the Convention on the Protection of the Marine Environment of the Baltic Sea Area (the Helsinki Convention), but it also serves as a major contribution to the fulfilment of obligations of the nine riparian States under various international legislative frameworks (the United Nations Convention on the Law of the Sea, the Convention on Biological Diversity, various International Maritime Organization conventions and, for those being Member States of EU, also EC directives).

For this reason the BSRP institutional network and contact persons have gained functions exceeding the duration of the project. Examples of this can be seen in the existing working structure of HELCOM and ICES, in on-going projects as well as in proposal for projects.

With the adoption of the HELCOM Baltic Sea Action Plan, the work within HELCOM is based upon an ecosystem approach and the work ahead will focus on the implementation of the Action Plan as well as its reassessment and updating in response to latest information about the status of the Baltic Sea; i.e. an

adaptive management approach. In this work, the scientific network and working structure of HELCOM and ICES will play an important role, as they contribute to the scientific understanding of ecosystem processes and abilities to predict trends and magnitudes of effects of management actions. An important aspect in this work is the financing of measures and the establishment of a prioritized list of most cost-effective projects.

In all of the above activities, the achievements of BSRP and the institutional network built-up during this project will play an important role.

Having in mind the original plans to implement the BSRP in three phases and the successful outcome of phase 1, the participating organizations express their willingness to continue the work, in a way that would take into account the political developments in the Baltic region and the changes in the eligibility of the riparian countries according to GEF regulations.”



## **Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders**

### **Comments from SLU/SIDA**

Below is a summary of Component 2 achievements taken from the SLU/SIDA project evaluation report:

- Component 2 has attempted and interacted with local and regional processes and managed to contribute with learning, demonstration and institutional strengthening.
- The attitude among key stakeholders regarding agri-environment measures has changed from regarded as a non existing problem to something to take seriously. There are several drivers for this change in attitude.
- Component 2 has developed and tested mechanisms for business development and financing making agri-environment investments more attractive and managed to pool resources for their realization.
- An international platform between countries, international institutions and local stakeholders has been developed for continued efforts in control of non-point source pollution, especially connected to the realization of the new Baltic Sea Action Plan.
- The co-operation with North West Russia has developed significantly, especially in the Leningrad area.
- The project has successfully contributed to implementation of 68 farm environmental investment projects, whereof 20 are funded through the BSRP agri-environment credit scheme and 48 have chosen to use other financing opportunities. The total value of the farm environmental investments reaches EUR 16 million whereof EUR 3 million are connected to the BSRP agri-environment credit scheme.
- Detailed calculations of the 20 farms participating in the BSRP grant and credit scheme confirm low unit abatement costs for reducing nitrogen and phosphorous in agriculture.
- Monitoring and assessment of non-point source pollution has been strengthened through the establishment of a network of monitoring stations in the Baltic States and partly also in North West Russia. The monitoring stations are in a process of being integrated in the national monitoring programs and aligned with the HELCOM pollution load compilations.
- A network of coastal demonstration activities has been developed, including restoration of crayfish waters and coastal meadows and the development of a pilot tourism plan. Some of those ICZM (Integrated Coastal Zone Management) demonstration projects visualize the aim to demonstrate applications of ecosystem management.
- Substantial contributions in environmental training of teachers and secondary level pupils in Kaliningrad rural areas include 120 out of 300 secondary schools.

The SLU report also provides the following useful summary of BSRP Component 2 deviations from plans, weaknesses and strengths:

### **Deviations**

Implementation and project plans have been followed quite well concerning the capacity building activities. Performance indicators are completed more than satisfactorily. However, there are deviations from the original plans. These deviations are connected to the activities in North West Russia. During project implementation it became obvious that the number of farm investments had to be reduced compared to the original plans. Two investment projects have been initiated in Kaliningrad and one in Leningrad oblast compared to the estimated five in each oblast. Each investment project became much more time consuming than expected and there were also difficulties in co-coordinating both project preparation and financing. In the case of Leningrad oblast more resources have instead been used for building awareness and co-operative platforms, which will benefit future agri-environment investment projects. In Kaliningrad oblast more resources were used for environmental education of teachers in secondary schools than was planned.

**Weaknesses**

1. *Complex management structure.*
2. The need of public relations (PR) is underestimated.
3. Time consuming procurement procedure for small investments.
4. High transfer cost from idea to implementation of investments.
5. Lack of scenario work for different agricultural production strategies.
6. Lack of ownership on the national administrative level.
7. Long time for preparation of investments projects in Russia.
8. Slow disbursement rate.

**Strengths**

1. *Complex management structure.*
2. Practical approach with achievements at the community level.
3. Combination of institutional strengthening and investment support.
4. Focus on the whole nutrient management chain and not only construction of manure storages.
5. Good integration to local and regional processes.
6. Good local ownership among end-users.
7. International co-operation and shared learning.
8. The multistakeholder and ecosystem health approach.

## **Annex 9. List of Supporting Documents**