

EUROPE AND CENTRAL ASIA
BALTIC SEA REGIONAL PROJECT - PHASE 1

Project Appraisal Document

Europe and Central Asia Region
ECSSD

Date: January 6, 2003 Sector Manager/Director: Laura Tuck, Jane E. Holt Country Manager/Director: Julian F. Schweitzer, Roger W. Grawe Project ID: P048795 Focal Area: I - International Waters	Team Leader: Inesis Kiskis Sector(s): Animal production (75%), General agriculture, fishing and forestry sector (25%) Theme(s): Biodiversity (P), Environmental policies and institutions (P), Other environment and natural resources management (S)
Project Financing Data	
<input type="checkbox"/> Loan <input type="checkbox"/> Credit <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Guarantee <input type="checkbox"/> Other:	
For Loans/Credits/Others:	
Amount (US\$m): 5.50	
Financing Plan (US\$m):	<div style="display: flex; justify-content: space-between;"> Source Local Foreign Total </div>
BORROWER/RECIPIENT	<div style="display: flex; justify-content: space-between;"> 1.79 0.00 1.79 </div>
GLOBAL ENVIRONMENT FACILITY	<div style="display: flex; justify-content: space-between;"> 0.00 5.50 5.50 </div>
FINLAND, GOV. OF (EXCEPT FOR MIN.FOR FOREIGN AFFAIRS)	<div style="display: flex; justify-content: space-between;"> 0.16 2.00 2.16 </div>
US, GOV. OF	<div style="display: flex; justify-content: space-between;"> 0.00 0.50 0.50 </div>
NORWAY: MINISTRY OF FOREIGN AFFAIRS	<div style="display: flex; justify-content: space-between;"> 0.00 0.14 0.14 </div>
SWEDEN: SWEDISH INTL. DEV. COOPERATION AGENCY (SIDA)	<div style="display: flex; justify-content: space-between;"> 0.00 1.05 1.05 </div>
FOREIGN MULTILATERAL INSTITUTIONS (UNIDENTIFIED)	<div style="display: flex; justify-content: space-between;"> 0.98 0.00 0.98 </div>
Total:	<div style="display: flex; justify-content: space-between;"> 2.92 9.19 12.12 </div>

Borrower/Recipient: HELCOM

Responsible agency: ESTONIA, LATVIA, LITHUANIA, POLAND, RUSSIAN FEDERATION

Coordinated by: The World Bank, Lithuania

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Estimated Disbursements (Bank FY/US\$m):

FY	2003	2004	2005	2006				
Annual	2.00	3.50	4.00	2.62				
Cumulative	2.00	5.50	9.50	12.12				

Project implementation period: March 2003 - June 30, 2006

Expected effectiveness date: 03/15/2003 **Expected closing date:** 06/30/2006

OCS PAD Form: Rev. March, 2000

A. Project Development Objective

1. Project development objective: (see Annex 1)

Project Development Objective:

Project Development Objective. The development objective of the Baltic Sea Regional Project - Phase 1 is 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 project activities would be 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 Baltic Sea Regional Program and Phased Approach:

Program Phasing. The Baltic Sea Regional Project - Phase 1 is a part of a broader Program designed to achieve the development objectives described above in a phased manner over a 6-year period. The Baltic Sea Regional Program consists of 3 complementary projects to be implemented in sequence as performance targets of each phase are achieved. In February 2001, the overall program with an estimated cost of USD 40 million and a proposed GEF financing of USD 18 million was presented to the GEF Council. At that time, the GEF Council approved USD 5.5 million to finance the first phase of the Program with the expectation that approval for funding phases 2 and 3 would be granted at a later stage. The Program includes the following phases:

- *Phase 1, (The current Project). Introduction of the Ecosystem Approach (2003-2006).* US\$5.5 million. Establishment of the regional framework for introduction of the ecosystem approach in managing the Baltic Sea Large Marine Ecosystem (BSLME); mobilization of partners in management of coastal and open sea marine resources; initial activities for land and coastal management; and initial investment to mitigate agricultural run-off.
- *Phase 2. Demonstration of the Ecosystem Approach (2006-2008).* US\$9.0 million. 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 investment program in the agricultural sector.
- *Phase 3. Expanding Application of the Ecosystem Approach (2008-2009).* US\$3.5 million. Identification of next steps by the cooperating parties for expanded application of the ecosystem approach for land, coastal and open sea management; completion of field based management and demonstration activities; and preparation and evaluation of assessment studies.

As Phase 1 progresses, the project documents for Phases 2 and 3 will be prepared and submitted for endorsement by the GEF Council and approval by Bank's Board of Directors.

Annex 1, the Project log-frame, provides the key performance indicators for progress towards achieving the program purpose, which will be tracked through a monitoring and evaluation system. This system is detailed in the Project Implementation Plan and Project Procurement Plan (PIP/PPP). Annex 2 provides description of the overall project.

Global Objective and GEF Operational Strategy:

Global Environmental Goal. The Project's global environmental objective is 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. Project activities support implementation of the Baltic Sea Joint Comprehensive Environmental Action Program (JCP), developed by the Helsinki Commission (1992, 1998). The JCP provides the basis for the Project, which is fully consistent with GEF Operational Program Number 9 (OP-9), "Integrated Land and Water Multiple Focal Area Operational Program"* The objective of OP-9 is to support "better land and water resource management practices on an area wide basis." The Project provides opportunities for the GEF to be a "catalyst for action 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 has 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 will support linkages with activities of the cooperating countries, international financial institutions, European Union, bilateral donors and NGOs.

Removing Barriers for Transboundary Management. Designed within the context of the Large Marine Ecosystem (LME) concept, the Project includes activities for improved ecosystem health and productivity, social and economic development, and provision of ecosystem management tools for decision-makers to address transboundary issues identified in Annex 12. The most important aspects of the Project are its linkages between land-based activities, coastal zones and open sea environments. The GEF funds, as incremental costs, will achieve global environmental benefits by removing barriers to transboundary management of land and open sea resources.

Cooperation and Coordination. With the support of the Global Environment Facility (GEF), UNDP and the World Bank, Project activities will assist the recipient countries in implementing the Helsinki Convention, other international agreements, and national policies and legislation. To some extent, it will also support Estonia, Latvia, Lithuania and Poland in meeting their obligations under the European Union accession process. The Project provides the basis for strengthening cooperation among the three international bodies - HELCOM, IBSFC, ICES; recipient country counterparts and other cooperating organizations. Preparation of the Project has been coordinated with the Rural Environmental Protection Project in Poland and the Global International Waters Assessment (GIWA), which are both supported by GEF. UNDP has participated in the development of the Project and will manage GEF funded activities during Phases 2 and 3.

* Global Environment Facility (April 1997). GEF Operational Programs.

2. Key performance indicators: (see Annex 1)

The Project will be implemented as an integrated activity, with HELCOM serving as the GEF executing agency, and working in coordination with IBSFC and ICES. Achievement of Project objectives will be judged by following key indicators:

- Institutional arrangements are in place for joint monitoring, assessment and evaluation of living marine resources;
- A technical assessment and joint monitoring system developed to determine abundance dynamics of the key Baltic fish species, as well as the alien species;

- Increasing number of farms and individual farmers (25-30 in Phase 1) participate in agri-environmental investment scheme;
- Surface and groundwater monitoring stations established in demonstration watersheds to track the nutrient levels; and
- One wetland being restored
- The Baltic Sea Steering Group established and operational

B. Strategic Context

1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)

Document number:

Estonia -- CAS document number 13539-EE,

Latvia -- CAS document number 23610-LV,

Lithuania -- CAS document number 19135-LT

Poland - CAS document number 16484-POL

Russian Federation -- CAS document number 24127-RU

Date of latest CAS discussion:

Estonia: September 21, 1994.

Latvia: April 25, 2002

Lithuania: April 19, 1999

Poland: April 14, 1997; update discussed September 16, 1999

Russian Federation: June 6, 2002

Sector Related CAS Strategies. For all recipient countries, the Project is consistent with CAS development objectives pertaining to sustainable rural development, strengthening local institutions, protection of natural resources and mitigating environmental decay.

Estonia – CAS document number 13539-EE, Date of latest CAS discussion September 21, 1994.

A primary CAS objective is to prepare the agriculture sector for EU accession, reform production and improve management practices; this is addressed within Component 2.

Latvia – CAS document number 23610-LV, Date of latest CAS discussion April 25, 2002.

Rural areas are some of the most economically depressed areas in Latvia. The CAS goal is to stimulate the economy in rural areas, and improve environmental management to promote regional development and build sub-national government capacity. The Rural Development Project (Report No. 18158 /FY99) supports sustainable agricultural activities to lay the groundwork for increasing income levels and improving living standards of the rural population; this Project builds on those activities.

Lithuania – CAS document number 19135-LT, Date of latest CAS discussion April 19, 1999.

Two CAS goals are to develop the rural economy and meet the formal EU accession agenda in agriculture. This will require institutional strengthening, improvements in agricultural efficiency and product quality, and upgrades and maintenance of infrastructure and environmental management. The proposed activities for Component 2 focus on these goals.

Poland - CAS document number 16484-POL, Date of latest CAS discussion April 14, 1997; Update was discussed September 16, 1999, Document number R99-167 (IFC/R99-148). The new CAS will

be discussed in summer 2002.

One of the CAS's overarching objectives is to achieve environmental sustainability and meet the requirements of the EU environmental directives. Specifically the CAS describes the Bank's objective to help the Government reduce pollution from dispersed (or "non-point" sources) and move towards compliance with EU directives and international agreements in a cost-effective manner. The indirect long-term objective is managing the transformation from a state economy to a market economy and enhancing market institutions and productivity in agriculture. This Project supports these objectives and complements the current GEF supported Rural Environmental Protection Project (Report No. 19868).

Russian Federation – CAS document number 24127-RU, date of latest CAS discussion June 6, 2002.

The Russian Federation faces several constraints on sustainable poverty reduction; a number of simultaneous actions are being taken to reduce poverty. The CAS objective pertains to strengthening institutional frameworks and enforcing existing national and international laws and regulations; utilizing environmentally responsible practices; and reducing widespread degradation of land, fisheries, and forests. The Project addresses this objective by supporting practical actions to improve management of fishery resources, coastal zones and agricultural production in the Kaliningrad Oblast, and potentially in the Leningrad Oblast during the later phases. The Project complements the recently approved Municipal Water and Wastewater Project (Report No. 21416-RU) that will support investments in several municipalities in the Baltic Sea drainage basin.

1a. Global Operational strategy/Program objective addressed by the project:

Global and Regional Strategies. The Project is consistent with the goals of Bank's Environment Strategy to support sustainable development, reduce poverty, and improve quality of life by removing the environmental constraints to economic development, and empowering people and societies to manage their environmental resources. At the ECA level, it is consistent with the regional ECA Environment Strategy and the Regional Natural Resource Management Strategy. In addition, the Project is consistent with the Bank's high-level commitment since 1990 to work with HELCOM and its member countries to support implementation of the JCP in order to achieve the long-term objective of "[restoring] the ecological balance of the Baltic Sea." The proposed Project would be the first regional project undertaken by the Bank to support the JCP and would build upon successful experience with previous national level JCP related projects in Estonia, Latvia, Lithuania, Poland and the Russian Federation.

2. Main sector issues and Government strategy:

Since the late 1980s, the status of the Baltic Sea marine environment has been a major concern of the riparian country Governments. The Baltic Sea Joint Comprehensive Environmental Action Program, which is coordinated by the Helsinki Commission (HELCOM), also known as the JCP, was mandated by 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 at 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 first phase of the JCP addressed primarily municipal and industrial pollution sources in all riparian countries. World 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 recipient countries to improve their water and wastewater services and to launch activities to reduce agricultural non-point pollution. Also, introduction of integrated coastal zone management practices was a key part of the first phase JCP projects. In the case of Poland, support was first provided through the Environmental Management Project and lending operations to support improved municipal water and wastewater services. In the Russian Federation, the Bank has worked to rehabilitate and upgrade water and sanitation services in St. Petersburg.

The Program entered a second phase of implementation in March 1998, following approval by the Ministers of Environment of the region of the JCP “Recommendations for Updating and Strengthening,” which reviewed progress to date, identified priorities for future action and developed lessons learned to guide upcoming efforts. Addressing the non-point source pollution remains high on the environmental agenda as it contributes nearly half of the nutrient pollution load to the Baltic Sea. The Polish Rural Environment Protection Project launched a series of “second generation” projects, which are jointly supported by the GEF, NEFCO, and the World Bank in cooperation with the EU, bilateral donors and operational NGOs. The Municipal Water and Wastewater project in the Russian Federation will support investments in several municipalities in the Baltic Sea drainage basin.

The recipient countries, as contracting parties of the Helsinki Convention, are obligated 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. Other than the Russian Federation, the recipient country governments are committed to moving into compliance with relevant EU directives as part of the accession process.* The national governments recognize this Project as a critical mechanism for supporting national programs and meeting the regional obligation of improving environmental management of the Baltic Sea.

* This includes the European Union Nitrates Directive, Environment Directives, and the Water Framework Directive.

3. Sector issues to be addressed by the project and strategic choices:

The Project represents a strategic choice to concentrate human and financial resources to strengthen regional management within the fisheries and agriculture sectors to achieve sustainable ecosystem management over the medium and long term. It also includes measures to support coastal zone management, which is a critical link between land, coastal and open sea environments. Component 1 addresses the marine sector and supports a coordinated approach to monitoring and assessment of coastal and open sea resources, improving fisheries management practices, and strengthening regional management for decision-makers. Component 2 addresses the agriculture sector, promotes investing in environmentally responsible agricultural practices, supports monitoring and assessment of land-based inputs to the coastal and open sea ecosystem, and strengthens national and regional capacity for integrated management. Component 2 together with Component 1 will include targeted activities for coastal zone management that are in the areas influenced by the agricultural demonstration sites. Component 3 in Phase 1 is financed by donor contributions, and provides support for institutional strengthening and capacity building measures that are necessary for implementation of the ecosystem management approach promoted by the Project.

C. Project Description Summary

1. Project components (see Annex 2 for a detailed description and Annex 3 for a detailed cost breakdown):

The Project components are based on the Large Marine Ecosystem (LME) concept and include integrated land, coastal and open sea activities to strengthen the local and regional capacity to achieve sustainable ecosystem management of the Baltic Sea resources. Sustainable management will improve ecosystem health while providing social and economic benefits to farming, coastal and fishing communities and sectors such as businesses and tourism. The Project has four complementary components described below. Annex 2 provides the Project description, identifies the management and implementation responsibilities, Annex 2, Figure 1 illustrates the project design; the Project's organizational structure is represented in Figure 2, and Table C summarizes the Component activities, sub-activities and tasks, and the proposed phases for component activities.

Component 1 – Large Marine Ecosystem Management Activities (US\$5.62 million, or 46.5 percent of the total cost). The prevailing coastal and open sea water management issues in the Baltic Sea are ecosystem impacts from eutrophication and over fishing. Successful management of these issues requires strengthened institutional and technical coordination of information, resources and management activities at the regional and local levels. While threats to the system and other transboundary issues have been identified, current resource management policies and practices are not holistic and ecosystem-based. To address these issues and meet national obligations under the Helsinki Convention, the Component was designed within an LME context with an ecosystem-based approach to monitoring, assessment, and management of the Baltic Sea resources. The component's primary objective is to introduce the principles and demonstrate the application of the LME concept for Baltic Sea coastal and open sea resources. Component activities are interdependent and will be used jointly to overcome short-term sector-by-sector attempts to manage resources and environments. Component 1 will introduce jointly planned and implemented multi-national monitoring surveys that facilitate local cooperation and coordination and use of innovative methodologies for assessing the changing state of the ecosystem and development of effective strategies for the management of these shared resources. Component activities provide the mechanisms to meet these objectives through improving coastal and open sea monitoring and assessment practices, understanding the carrying capacity of the coastal and open sea ecosystem, promoting sustainable fishery practices, and supporting strengthened regional management and local capacity. In coordination with the other Project components, Component 1 will: (i) establish local and regional administrative and organizational mechanisms, through the Coordination Centers, for cooperative monitoring and assessment activities, (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, and EU environmental and water management directives (Russian Federation excluded). The Project will support activities in the coastal near shore environment of the Eastern Baltic Sea and in selected adjacent sections of the open sea environment. In general, the coastal near shore activities and monitoring network will correlate with land-based coastal and associated demonstration activities supported under Component 2.

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 JCP highlights management of agriculture inputs and coastal areas of the Baltic as priority issues. The agricultural element of the Component will (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 support for small-scale environmentally responsible agricultural investments. The Project will partially finance investment costs for on-farm environmental facilities, operating expenses of local implementers, equipment recommended by the farm management plans, and recurrent costs for local capacity building. The coastal zone management element of the Component will (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. The Project will partially finance costs for management activities, small-scale investments and demonstration activities and selected costs for local capacity building.

Component 3 – Institutional Strengthening and Regional Capacity Building. (US\$0.15 million, or 1.2 percent of total cost). During Phase 1, activities under Component 3 will be limited in scope whereas they will expand significantly during Phases 2 and 3. The Component's primary objective is 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 will include activities for (i) regional capacity building that will focus on regional administrative, socioeconomic, and technical matters as they pertain to management of Baltic Sea resources; (ii) targeted activities to facilitate improved regional level coordination and cooperation between HELCOM, IBSFC, ICES and regional stakeholders; (iii) support for improved valuation of ecosystem goods and services through an evaluation of the socioeconomic implications of reduced eutrophication on ecosystem resources; (iv) a program to support 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). Component costs are, *inter alia*, for local and regional Project management, contracting procurement services, and costs for the social assessment and required financial audits.

Provisions for Reallocation of Funds. If in the course of implementing the overall BRSP, including Phase 1, it becomes necessary to reallocate funds within the project the steps outlined in this section would be used consistent with existing procedures. Reallocations of funds could be required due to either political/administrative issues arising with one or more cooperating countries or for technical reasons based on implementation experience. If such a situation arises, HELCOM in coordination with the Bank, would undertake the following steps: (a) identify the need for a potential reallocation and document its causes; (b) based on the technical aspects of project design and the implementation performance record within project supported activities it would propose how the funds would be reallocated between the Components; and (c) as part of this process HELCOM would provide a technical description of the activities to be undertaken, assess their benefits with regard to achievement of the Project objectives, provide an estimated budget and present an implementation plan and schedule. This request for reallocation would be provided to the Task Team Leader, who review and approve the proposed reallocations in consultation with the GEF Regional Coordinator, Legal and Loan Departments, and when appropriate, with GEF Secretariat. The activities supported by the allocated funds would be integrated into the overall implementation plan for the BSRP and be subject to evaluation as part of the regular project supervision and Implementation Completion Report (ICR) for the BSRP.

Component	Indicative Costs (US\$M)	% of Total	Bank financing (US\$M)	% of Bank financing	GEF financing (US\$M)	% of GEF financing
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Component 1 Large Marine Ecosystem Management Activities	5.62	46.4	0.00	0.0	2.60	47.3
Component 2 Land and Coastal Management Activities	4.99	41.2	0.00	0.0	2.50	45.5
Component 3 Institutional Strengthening and Capacity Building	0.15	1.2	0.00	0.0	0.00	0.0
Component 4 Project Management	1.36	11.2	0.00	0.0	0.40	7.3
Total Project Costs	12.12	100.0	0.00	0.0	5.50	100.0
Total Financing Required	12.12	100.0	0.00	0.0	5.50	100.0

Percentages add up to more than 100% due to roundings of decimals.

2. Key policy and institutional reforms supported by the project:

Although the Project does not include policy or institutional reforms as a specific activity, it is inherent in the overall objective to facilitate strengthening of regional, national and local capacities to promote, support and implement improved ecosystem-based management. This Project will provide the recipient countries with opportunities to develop mechanisms to implement and/or reinforce existing regional, national and local policies.

- *Component 1 - Large Marine Ecosystem Management Activities.* This Component will provide opportunities for improving current fisheries management practices and subsequent policy reforms compatible with IBSFC and HELCOM recommendations for fisheries and application of EU directives in its member countries within the Baltic Sea region.
- *Component 2 - Land and Coastal Management Activities.* Through support for agricultural run-off demonstration activities and farm level management actions and investments, this Component will assist in application of the Code of Good Agricultural Practices, which will support national sustainable agriculture policy reforms. Coastal zone management activities will facilitate implementation of demonstration activities in areas that have benefited from cooperative planning and management studies prepared by national and local governments. This will allow for operational experience with the coastal zone management process.
- *Component 3- Institutional Strengthening and Regional Capacity Building.* This Component will build local and regional capacity and strengthen institutions, providing them with experience in development and application of ecosystem based management tools. The proposed Baltic Sea Steering Group (BSSG) will serve as a mechanism for overall oversight of project implementation, and its members will be instrumental in resolving the emerging issues and disseminate information and experiences throughout the region.
- *Component 4 - Project Management.* This Component will provide an opportunity for expanded operational level cooperation among the three international bodies - HELCOM, IBSFC and ICES - all of which have roles in management of the common resources of the Baltic Sea.

3. Benefits and target population:

The primary regional benefit lies in strengthening the decision making process at the regional, national and local level for sustainable ecosystem-based management of the Baltic Sea resources. This should result over 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 environmental investments in agriculture;
- Demonstration of community based coastal zone management activities;
- Reduction of nitrate input to Baltic Sea coastal and transboundary waters;
- Sustainable use of fishery resources at the regional and national levels;
- Improved marine ecosystem health and related benefits associated with fisheries, other living resources and coastal populations; and
- Progress towards meeting HELCOM's goal of restoring the ecological balance of the Baltic Sea.

The Project's target population and beneficiaries include:

- *The Three International Bodies—HELCOM, IBSFC, and ICES:* will benefit from the efforts to facilitate regional cooperation and coordination in the decision-making process;
- *Recipient Country National and Local Governments:* will have an opportunity to improve their technical capacities and participate as equal technical and political partners in the three international bodies;
- *Farming Communities:* through farm investments, farmers will save money by not using chemical fertilizers, increase revenues from improved productivity, and reduce noxious impacts from odor;
- *Coastal Communities:* will be able to utilize resources from a better managed coastal ecosystem, which will indirectly benefit the local businesses and employment through an increase in tourism;
- *Fishing Communities:* will be able to use more efficient technologies and methodologies for sustainable use of fishery resources; and
- *Tourism Interests:* will benefit in the long-term through a rise in sustainable coastal tourism that emphasizes natural resource and cultural values.

4. Institutional and implementation arrangements:

Project Coordination. HELCOM will serve as the executing agency for the Project and will undertake this work in full coordination with IBSFC and ICES. A Project Implementation Team (PIT) will be established in HELCOM headquarters in Helsinki. The PIT will be staffed by two HELCOM Professional Secretaries and the Administrative Officer of HELCOM. This staff will be assisted by a Financial Assistant and a Procurement Consultant that will support procurement and disbursement actions as well as by a Project Assistant in co-operation with the Component Coordinators (C1C and C2C). The Executive Secretary of HELCOM will supervise the work of PIT. The The Baltic Sea Steering Group (BSSG) will be established and will provide broad-based support for the implementation process. The BSSG will consist of members from HELCOM, IBSFC, and ICES, senior level representatives of the Baltic riparian countries, and NOAA. The PIP/PPP will provide TORs and details of the administrative and Project management arrangements.

Management of the Components. The following arrangements will be used for management of the components included under the Project:

- *Component 1 - Large Marine Ecosystem Management Activities.* Component 1 will be implemented under the supervision of ICES, working closely with IBSFC and HELCOM. The Component 1 Coordinator (C1C), stationed in ICES, Copenhagen, will be responsible for overall management of Component 1 and will supervise the implementation of Project-supported activities. The C1C will be responsible for day-to-day Project management and administration, and will work directly with the

Local Project Managers (LPMs) at the Data Coordination Centers. The LPMs will be responsible for day-to-day implementation in their respective countries. The PIP/PPP will provide TORs for the C1C and LPM/Coordination Centers.

- *Component 2 - Land and Coastal Management Activities.* Component 2 will be implemented under the supervision of HELCOM, by the SLU and WWF.
 - *Agricultural Activities.* The Swedish University of Agricultural Sciences (SLU) will manage the agricultural activities under this component on behalf of HELCOM. The SLU will provide a Component 2 Coordinator (C2C), stationed in Uppsala who will be responsible for overall management of Component 2 and will work with existing field structures established under the Swedish supported BAAP Project and the Rural Environmental Protection Project in Poland. An LIU will operate in each country and will be responsible for day-to-day Project implementation and administration. The LIUs will be staffed with a unit manager, accountant, technical specialists, and agricultural advisors. The PIP/PPP will provide TORs for the C2C, and the LIUs.
 - *Agri-environmental Interventions.* HELCOM will contract the Nordic Environmental Finance Corporation (NEFCO) to jointly finance pilot scale investments in eligible farms. A total of USD 700,000 of GEF funds has been allocated to support agri-environmental interventions. The LIUs will market the investment scheme among the farmers. Eligible farmers will be invited to attend special agri-environmental and economic courses offered through the local Agricultural Advisory Services (AAS). As a result of these courses, the participating farmers will prepare a business plan which they will present to NEFCO for financing. NEFCO may approve the submitted plans or reject them. If approved, the GEF money will be used to soften the NEFCO loans so that farmers can repay it over a 10 year period. Total cost of a single sub-project (NEFCO loan+GEF grant) should not exceed USD 200,000 equivalent, and the maximum amount of a GEF grant for each sub-project shall not exceed the equivalent of USD 30,000. All funds (GEF and NEFCO) will be paid to contractors/suppliers directly. The LIU staff will supervise implementation progress of subprojects and will report to NEFCO and HELCOM accordingly. More details on the selection of subprojects and practical arrangements for implementation of subprojects will be provided in the PIP/PPP.

HELCOM will transfer funds in several installments for agri-environmental investments to a subaccount held by NEFCO. The installments will not exceed 15% of the total amount earmarked for agri-environmental investment. HELCOM will replenish the GEF funds when 80% of the original installment have been spent for subprojects. To justify replenishment, NEFCO will provide HELCOM with proof of eligible expenditures and loan committee decisions on allocation of the grant portion for each specific project, contracts and invoices from contractors/suppliers, and reports from LIUs on progress of works in the field.

- *Coastal Zone Management Activities.* The coastal zone management activities under Component 2 will be coordinated with Component 1 and managed by the WWF, who will provide a coordinator to work with the Area Task Teams, established in the demonstration areas during the earlier HELCOM PITF MLW supported planning and management studies. The studies will serve as the basis for implementation of these activities, and will be coordinated by local governments, community based organizations and nongovernmental organizations. The PIP/PPP will provide TORs for the coordinator and local counterparts.
- *Component 3 - Institutional Strengthening and Regional Capacity Building.* Component 3 will be managed by HELCOM in cooperation with IBSFC and ICES. The BSSG will work with these three institutions to review and disseminate information and management tools developed under the

Project.

- *Component 4 - Project Management.* Component 4 will provide support for Project management by HELCOM and the cooperating parties. This includes support for the PIT at HELCOM and the various administrative services required for Project reporting, procurement, disbursement and financial management. As noted above, HELCOM will retain the services of qualified consultants, with significant experience in Bank procedures, to assist with procurement and disbursement actions. The consultants will undertake preparation of the bidding documents and review of bids for civil works and equipment, and preparation of terms of reference for services and facilitate evaluations and support HELCOM in negotiations.
- *Accounting, Auditing and Reporting Requirements.* The Project will comply with the “Guidelines for Financial Reporting and Auditing of Projects Financed by the World Bank.” The Bank together with HELCOM will agree upon reporting requirements for Financial Monitoring Reports (FMR). Project progress will be reported through annual, semi-annual and quarterly Project progress reports. An Implementation Completion Report (ICR) will be prepared within six months of Project completion. The Project will be consistent with the provisions of the World Bank, updated financial management requirements. HELCOM's financial management capacity assessment and an up front agreement on accounting and auditing procedures that are acceptable to the Bank were reached in May 2000 with HELCOM. These were reviewed once again during the appraisal mission. This agreement includes a time-bound action plan to address financial management issues and a reporting system that fully complies with the updated financial management requirements. The HELCOM entity accounts will be audited by Finnish State Auditor's office, based on HELCOM's Headquarter's Agreement with Finnish Government. The Project and Special Account will be audited by competitively selected auditing firm with qualifications acceptable to Bank and in accordance with terms of reference acceptable to Bank. The PIP/PPP will detail the relevant Bank policies and requirements.

Project Monitoring and Evaluation. HELCOM will report to the Bank and be responsible for ensuring that all GEF funded activities are carried out in compliance with Project design and contracts. The Project will comply with the required monitoring and evaluation procedures as required for the Implementation Completion Report. The evaluation will rely on both qualitative and quantitative criteria using Bank guidelines, “Monitoring and Evaluation of Program Impacts.” Resources have been set aside to support the conduct of both these evaluations by independent reviewers. The ICR for Phase 1 will provide suggestions on possible improvement of the implementation plan and steps that could be taken to ensure achievement of Project goals during Phases 2 and 3. The Implementation Completion Report will be completed no later than six months after the closure of the Project. The PIP/PPP will detail the process for these reviews.

D. Project Rationale

1. Project alternatives considered and reasons for rejection:

In designing the Project, several options were considered. In terms of financing, the Project was originally planned and submitted to GEF as a traditional Bank operation. However, due to cash-flow concerns within the GEF, the Project was restructured into three complementary, although separate, phases to match availability of GEF resources. In terms of Project design, the proposed Project was selected on the grounds that it provides for an integrated approach to addressing the land, coastal and open sea issues while achieving JCP priorities. Component 1 is designed to provide linkages with existing regional programs and initiatives and to meet Helsinki Convention obligations, while Component 2 builds on and expands the successful pilot demonstrations begun under the BAAP, and complements the GEF supported Rural Environmental Protection Project in Poland. It also supports

implementation of the Coastal Lagoon and Management Plans developed by the HELCOM PITF MLW and builds upon earlier experience with coastal management under Bank supported projects in Estonia, Latvia, and Lithuania. Component 3 is critical to facilitate the strengthening of regional and local capacity. The other design alternatives reviewed and considered include:

- *Individual National Programs:* These would be costly and likely result in duplication and inconsistencies. Individual programs could not address transboundary issues or the need for systematic and coordinated monitoring and assessment for regional management of the Baltic Sea resources.
- *Curative Investment Programs:* These would respond only to problems rather than proactively addressing the problems' source. Ultimately this type of program would be expensive with minimal sustainable results, and provide little opportunity for coordinated regional management.
- *Sector Specific Programs – Agriculture, Coastal or Open Sea Resource Programs:* These would have limited benefits, as they would address only half of the ecosystem issues. Addressing only the open sea issues, for example, ignores the predominant problem of pollution from non-point sources. Again, sector specific programs would not provide opportunities for regional management.

2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned). The BSRP, builds on the lessons learned from complementary projects, and provides linkages with ongoing projects in the area. This Project has been designed in conjunction with the Rural Environmental Protection Project in Poland and has been coordinated with the work of GIWA, which is conducting a pilot study on the Baltic Sea.

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed projects only)	
		Implementation Progress (IP)	Development Objective (DO)
Bank-financed			
Estonia - environmental management in coastal areas	Haapsalu and Matsalu Bays Environment Project (completed)	S	S
Estonia - strengthening agricultural practices	Agricultural Development Project (completed)	S	S
Latvia - environmental management in coastal areas	Liepaja Environment Project (completed)	HS	HS
Latvia - strengthening agricultural management practices	Rural Development Project (completed)	HS	HS
Lithuania - watershed and water quality management	Siauliai Environment Project (completed)	S	S
Lithuania - water quality and environment management in coastal areas	Klaipeda Environment Project	S	S
Poland - GEF supported development of environmentally responsible agricultural practices	Rural Environmental Protection Project	HS	S
Poland - strengthening environmental management capacity	Environment Management Project (completed)	HS	HS

Poland - strengthening agricultural management practices	Rural Development Project	S	S
Other development agencies			
Regional - Government of Sweden	Baltic Agricultural Run-off Action Program (BAAP)		

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

3. Lessons learned and reflected in the project design:

Lessons learned in the region, including those from GEF projects* were considered during Project preparation. A review of “lessons learned” prepared for the first phase of the JCP and development of Baltic 21 identified three key measures as critical to the success of activities at the regional, national and local level: (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” or similar document; and (iii) a broad based partnership to support implementation of the agreed “preventive” and “curative” actions. It has been recognized that the major challenge facing all regional environmental programs/projects is translating plans into action. At the operation level, the key lessons learned by the donors and recipient countries that have worked in the region on agricultural and environment projects include:

- *Long-term commitment is required from the recipient countries to address the regional issues.*
The recipient and cooperating countries are members of HELCOM, and have a demonstrated record of taking actions to meet their commitments under the Helsinki Convention.
- *All participants must have a shared understanding of the goals necessary to address the issues.*
The three cooperating international bodies and representatives of the recipient countries have actively participated in the Project preparation process and in the previous activities related to implementation of the JCP.
- *Linkages with other ongoing activities are necessary to optimize benefits for the recipient countries.*
The Project design builds on BAAP Project activities, and links with GEF, EU, and Bank projects where appropriate. Special measures will be used for coordination with the Rural Environmental Protection Project in Poland and the Baltic Sea pilot study supported by GIWA.
- *Capacity building is critical for innovative and effective decision-making and management.*
The Project objective is to build regional, national and local capacity to strengthen the decision making process for sustainable ecosystem-based management of the Baltic Sea resources.
- *Consistent procedures are needed to evaluate and monitor transboundary issues.*
The Project supports upgrading of the quality of the systems used by HELCOM, IBSFC and ICES to evaluate, assess and monitor transboundary environmental conditions in the Baltic Sea. These systems will be used by regional, national and local organizations for more effective environmental management. The PIP/PPP will detail the monitoring and evaluation process, which addresses transboundary issues.
- *The project design considers the cost-effectiveness and affordability of project activities.*
The activities for Component 1 focus on streamlining current practices and optimizing more cost-effective monitoring and assessment processes. Experience from BAAP activities for agricultural management and previous Bank and WWF supported coastal zone management activities

confirms that the proposed activities are cost-effective.

In addition, the Bank's experience in the region has generated important lessons for Project design and implementation mechanisms. These include:

- *Project design must consider and include lessons learned from similar rural development and environmental management projects in the region.*
Design of the Project has benefited from the experience gained to date in implementation of a series of rural development and environmental management projects that have been supported by the Bank over the last decade in the Baltic Sea region. The design has also benefited from lessons from the Swedish funded BAAP Phase I that addressed management of agricultural run-off at the regional level, as well as related national level activities supported by the European Union, Denmark, Finland, the Netherlands, Norway and United States. It also included examination of lessons learned in coastal zone management from previous European Union, WWF and Bank supported activities in the region.
- *Mutual understanding and agreement is needed between the donors and local counterparts on project process and expectations.*
The Project Core Group has used a consultation process involving representatives from the recipient countries and donor community who have been involved in Project design and preparation, including participation in regional workshops. Project preparation included a regional meeting to review transboundary water management issues in the region, a regional workshop on living marine resources management, and a regional workshop on management of non-point source pollution from agriculture. A study tour was also made to Poland to review the experience and management of the Rural Environmental Protection Project.
- *Project goals and activities must be clearly defined in addressing the issues.*
The transboundary and priority issues were identified in the JCP process, which helped in defining the Project objective and supporting component activities. The goals and activities have been developed through an interactive process that has included extensive regional workshops as well as meetings at the national and local level. The Project builds upon earlier activities supported by HELCOM in the context of implementation of the JCP.
- *A clear project framework is necessary for successful implementation.*
The Project design supports the current development for ecosystem-based approach to management and is consistent with the LME concept for sustainable ecosystem-based management and the activities under the components have been divided in a manner to allow for effective management, supervision and monitoring. The PIP/PPP will clearly outline the implementation process for successful implementation.
- *The procurement and disbursement procedures are clearly understood by the regional partners and recipient countries early in the project process.*
The procurement needs are clearly identified, and HELCOM will subcontract an independent consultant with experience in Bank procurement and disbursement procedures. Basic training on procurement and disbursement procedures will be provided by the firm to Project managers and local counterparts early in and during the Project implementation process. Supplemental training will be provided as necessary.
- *Capacity building, assessing community needs, and working with the community to raise public awareness can assure product quality.*

The focus of the Project is on building capacity for the use of ecosystem based management for the Baltic Sea at the regional level and at the same time strengthening capacity at the national and local level to better manage environmental dimensions of agriculture, coastal zones and fisheries. Previous work under the JCP, especially in agriculture and coastal zone management, has been based on extensive consultations with communities to identify their goals and needs. Social assessment work to be conducted during the Project will facilitate further consultations and improve the targeting of interventions. All Project supported activities will include specific provisions for public awareness activities for decision makers as well as farming, coastal and fishing communities.

- *It is important to have political support to establish a strong, functional institutional infrastructure.* The recipient countries are all members of HELCOM and are committed to meeting their obligations under the Helsinki Convention. At the regional, national and local level throughout the region, there is strong political and public support for measures to improve environmental management and to take actions to restore the ecological balance of the Baltic Sea. The Project builds upon the long established institutional infrastructure of HELCOM, IBSFC and ICES, which complements existing national and local institutions. All activities build upon existing networks established by the three cooperating international bodies in undertaking their work, as well as on the BAAP agricultural network and the WWF coastal zone management network.

* Summary Report - Study of GEF Project Lessons, January 1998; HELCOM - Baltic Sea Joint Comprehensive Environmental Action Programme: Background Document on Recommendations for Updating and Strengthening, December 1998; and Baltic 21 - "Financing The Baltic 21: An Overview." August 1998.

4. Indications of borrower and recipient commitment and ownership:

All the recipient countries are contracting parties to, and support implementation of the Helsinki Convention; contribute to the operational costs of HELCOM; and are active in undertaking priority activities included in the JCP. The Project design promotes strengthened coordination between the three international bodies responsible for regional activities in the Baltic Sea and supports priority preventive and curative measures and institutional development activities identified in the JCP. Preparation of the Project has been conducted under the joint supervision of HELCOM, IBSFC and ICES with the participation of national and local level representatives of the recipient countries. This process has included the involvement of national academic organizations, applied research institutes, farmer organizations and non-governmental organizations. The cooperating international bodies have made a commitment through formal decisions of their executive bodies to support implementation of the Project and have provided significant expertise in the preparation process.

At the national and local level, government officials and experts have participated in a large number of regional and national level workshops and meetings that have been conducted in all cooperating countries to support the design process. In this context, the cooperating international bodies and countries have made facilities available for these consultations, which have included broad based participation. At the local level, significant commitment and ownership has been shown for activities concerning agricultural and coastal management by local communities and residents that have worked with the HELCOM/SLU, NEFCO and WWF in the preparation process. Latvia hosted a regional meeting to support preparation of Component 1 in July 2000; Lithuania hosted a regional meeting to support preparation of Component 2 in June 1999; and Poland hosted a field visit program in May 2000 to review implementation experience with activities supported by the Rural Environment Protection Project. In addition, a regional workshop for the overall project was hosted by Latvia in June 2001.

5. Value added of Bank and Global support in this project:

The GEF's added value is to provide incentives for sustained operational level cooperation among the three international bodies and financially support national and local governments and participating non-governmental organizations to address priority transboundary water problems in the Baltic Sea ecosystem. The Project's regional approach, with GEF support, contains provisions for making available financial resources to the recipient countries; to meet the "incremental costs" to address transboundary issues on an accelerated basis by buying down the costs for actions by the recipient countries. GEF funds will specifically assist in providing linkages and harmonizing national and local actions with regional environmental objectives.

The GEF is leveraging funds from national and local governments, European Union, bilateral donors, NEFCO, applied research foundations and WWF that contribute to more effective regional coordination and cooperation. Without the combined regional experience of the HELCOM, IBSFC, ICES, Bank, NEFCO and WWF, and the incremental resources of the GEF, implementation of the Project would proceed at a slower pace and would not fully benefit from integration, coordination and management actions promoted by this Project. In addition, the GEF will support small-scale investments in agriculture, coastal zone management and fisheries management that may provide a framework for potential future investments supported by national and local governments in cooperation with the European Union, bilateral donors and international financial institutions.

E. Summary Project Analysis (Detailed assessments are in the project file, see Annex 8)

1. Economic (see Annex 4):

- ☐ Cost benefit NPV=US\$ million; ERR = % (see Annex 4)
- ☐ Cost effectiveness
- ☒ Incremental Cost
- ☐ Other (specify)

Consistent with GEF operational policy, the requested GEF funds would only be used to finance the incremental costs on a declining basis associated with addressing transboundary costs in the Baltic Sea region. The GEF Alternative Scenario has evaluated a series of critical measures for transboundary management that require support from GEF and other international sources to remove barriers to implementation of key elements of the JCP. This Project is composed of a series of necessary activities to improve transboundary management of freshwater, coastal and open sea ecosystems. Support from GEF is necessary for transaction costs for cooperation to: (i) provide linkages and develop common approaches and standards for marine ecosystem protection; (ii) coordinate efforts to close gaps in spatial and temporal transboundary monitoring and assessment surveys; (iii) establish a practical framework for sustainable fisheries management; (iv) assist local communities in implementation of coastal zone management plans; (v) support measures to assist countries to reduce transboundary non-point source pollution from agriculture; and (vi) facilitate strengthening of regional, national and local capacities for environmental management. The incremental cost of realizing the benefits of the Project have been estimated at US\$5.5 million over a 3-year period, and are additional to what each Government could be reasonably expected to finance if national benefits alone were included in the economic analysis. These also complement GEF investments made for the complementary Rural Environment Protection Project under implementation in Poland.

2. Financial (see Annex 4 and Annex 5):

NPV=US\$ million; FRR = % (see Annex 4)

The total cost for the Phase 1 Project is estimated at US\$12.12million of which GEF will finance US\$5.5 million (45.4 percent). The GEF will finance foreign and local incremental costs and part of the recurrent costs on a declining basis. Local costs are US\$1.79 million (14.8 per cent), which will be provided in kind by national and local governments and farmers through their contributions of labor and materials for on-farm improvements. Part of the national government in-kind cost will be their contribution to HELCOM. The foreign cost is the remaining US\$10.33 million (85.2 per cent). Currently co-financing has been committed by Finland, NEFCO, Norway, Sweden, and United States (NOAA). The WWF will be providing technical services and other contributions in kind. The Project complies with relevant Bank policies (OP/BP 10.02), and the procurement and financial management arrangements are details in Annex 6.

The incremental costs from GEF, lines of credit from NEFCO, donor contributions and assistance from WWF will supplement the recipient country national and local government contributions to this Project. The budgets will be revised at the completion of negotiations; support from NEFCO will be subject to cross conditionality of effectiveness with the GEF agreement signed with the Bank. The Project has secured donor support and co-financing from the recipient countries; the GEF funds will only be used to cover the incremental costs, minimizing the financial risks.

Disbursement will be based on traditional disbursement procedures (SOE). FMRs conforming to updated financial management guidelines will be adopted for this Project. Audits of the Project and Special Accounts will be conducted by an independent auditor acceptable to Bank in accordance with the Terms of Reference acceptable to Bank. Finnish State Auditors who undertake review of the HELCOM accounts as part of the Finnish contribution to Headquarters Agreement.

Fiscal Impact:

N/A

3. Technical:

The Project will support the adoption of proven planning methods, management techniques and technologies that have been used at other locations in North America and Europe. Component 1 will assist in the upgrading of technologies, analytical approaches and decision-making tools for biological monitoring, ecological assessments and fisheries management measures in coastal and open sea waters. Through the Coordination Centers, this will include standardization of data collection methods; laboratory equipment; and the techniques necessary for quality assurance. Demonstration activities will support coastal habitat and stream restoration. The planning methods and technology used in Component 2 include development of environmental management and business plans for farms that are used in many countries in the region and simple, low-cost, well-tested practices for nutrient recycling structures, which have been extensively used in demonstration programs in the recipient countries as well as in Poland. Monitoring equipment for in-stream measurements will be established in the demonstration watersheds and coordinated with Component 1 coastal waters monitoring and assessment activities. Field level investments will not be supported in Poland since these are already included in the GEF-funded Rural Environmental Protection Project. The PIP/PPP will outline the technical specifications for equipment and small-scale civil works, and Terms of Reference for consulting services, to reduce technical risks during Project implementation.

4. Institutional:

4.1 Executing agencies:

HELCOM, which became operational in 1980, will serve as the Executing Agency for the Project.

4.2 Project management:

HELCOM will undertake implementation activities in full cooperation with IBSFC and ICES. The Components will be managed as follows: (i) Component 1 - HELCOM will have an agreement with ICES which will coordinate this component; (ii) Component 2 - HELCOM will have an agreement with SLU to coordinate agricultural activities and with WWF to coordinate coastal zone management activities; (iii) Component 3 - will be coordinated by HELCOM in cooperation with IBSFC, ICES, SLU and WWF; and (iv) Component 4 - will be coordinated by HELCOM. The World Bank will approve staff appointments and any major changes in staffing. The UNDP will become increasingly involved only in Phases 2 and 3 of the project and will supervise implementation of Component 3

4.3 Procurement issues:

HELCOM will, with agreement from the Bank, contract qualified consultants with significant experience in procurement and disbursement to provide these services for GEF funds included under the Project. This approach will significantly reduce both the costs to HELCOM and the risks associated with problems with Bank procurement and disbursement procedures. If appropriate, the consultant may also provide procurement and disbursement services for activities funded by other parties. The institutional arrangements and experience of the potential regional consultants are such that the institutional arrangements are sufficient and create limited possibility of procurement risks.

4.4 Financial management issues:

The financial management capacity assessment was conducted in May 2000 and updated in February 2002 following additional review of HELCOM's financial management system. The assessment concluded that HELCOM is an organization with a high standard of accountability that meets Bank standards. HELCOM can be anticipated to manage the GEF funds and coordinate effectively with cooperating donor organizations. HELCOM specialist staff have received formal financial management, procurement and disbursement training from the Bank at headquarters and Project funding will be provided for additional training as required. In addition, informal linkages have been developed between HELCOM staff and the Bank concerning these issues.

5. Environmental:

Environmental Category: B (Partial Assessment)

5.1 Summarize the steps undertaken for environmental assessment and EMP preparation (including consultation and disclosure) and the significant issues and their treatment emerging from this analysis.

The Project will support a series of complementary measures to improve environmental management in agriculture, the coastal zone and open sea environment. It will focus on supporting measures to reduce non-point source pollution from agriculture; improve coastal zone management; and adopt an integrated approach to the management of marine resources. The overall environmental screening category for the Project is "B" and an Environmental Management Plan (EMP) has been prepared and is attached as Annex 13. The EMP and PIP/PPP specify mitigation and monitoring measures that will be in place to

minimize impacts and include specific measures for Component 1, which include application of new monitoring, assessment and management measures; and for Component 2, which include adoption of guidelines for design construction of manure pads, slurry tanks and the use of their contents, and guidelines for nutrient retention and wetland restoration activities. Preparation of the Project has been based on regional, national and local level consultations that are reviewed in Annex 10. The EMP was made available in the InfoShop, Bank Resident Missions, and recipient countries prior to the pre-appraisal in June 2001.

5.2 What are the main features of the EMP and are they adequate?

The EMP includes specific design measures, construction supervision methods and monitoring actions to minimize and/or avoid the limited potential adverse impacts associated with activities included in Components 1 and 2. The primary focus of the EMP is on issues related to the construction of small-scale civil works for on-farm nutrient management and installation of monitoring stations. To minimize impacts from land disturbance during short-term construction, mitigation measures will be in place and include (i) adopting guidelines for design and construction of manure pads, slurry tanks, and other nutrient recycling structures, and (ii) design and construction of in-stream monitoring stations and mitigation measures to reduce construction impacts. Activities for coastal zone management and wetland restoration demonstrations will be subject to proper management plans that will require formal review and approval by national and/or local authorities as appropriate. These procedures are outlined in the EMP.

5.3 For Category A and B projects, timeline and status of EA:

Date of receipt of final draft: February, 2002

An Environmental Management Plan has been prepared as part of the Project design process. An updated version of the EMP has been made available in the InfoShop, at Bank Resident Missions, and recipient countries prior to the appraisal.

5.4 How have stakeholders been consulted at the stage of (a) environmental screening and (b) draft EA report on the environmental impacts and proposed environment management plan? Describe mechanisms of consultation that were used and which groups were consulted?

Development of the Project has involved a broad based consultation process that has included a regional meeting to review transboundary water management issues in the Baltic Sea region resulting in the Vilnius Recommendations, regional workshops, and national and local level meetings during which the environmental aspects of the Project have been reviewed. For Component 1 discussion with counterpart stakeholders concluded that there are only limited environmental impacts associated with the operation and maintenance of scientific equipment, use of chemicals in certified laboratories and a need to collect live specimens for certain types of biological monitoring. For Component 2, farmers and advisory organizations already involved in the BAAP demonstration projects understand the environmental issues associated with small-scale civil works for on-farm improvements and monitoring stations and already work closely with local authorities and with the farm communities. Development of the proposed coastal zone management activities has been done with direct input from local communities as part of their planning process

5.5 What mechanisms have been established to monitor and evaluate the impact of the project on the environment? Do the indicators reflect the objectives and results of the EMP?

The Project supports an extensive program of interventions to monitor and evaluate its impacts in agricultural and coastal zones and the open sea environment. This information will be made available to

the public through HELCOM, IBSFC, ICES and national and local governments. As part of the monitoring and assessment activities, a full set of indicators will be developed for the Project to evaluate specific environmental trends. Specific actions are included in Components 1 and 2 to monitor the implementation of the EMP.

6. Social:

6.1 Summarize key social issues relevant to the project objectives, and specify the project's social development outcomes.

Building on the approach used in the Rural Environmental Protection Project in Poland, the Project includes a systematic social assessment to evaluate the social impacts from the component activities and outreach program, and to provide potential modifications to the Project design as needed. This work will be coordinated by a social scientist from the Bank and will be undertaken by local social scientists in order to transfer skills in social assessment to the cooperating countries. The findings of these activities will allow national and local governments, as well as beneficiary communities, to have an improved understanding of the social dimensions of these environmental management interventions. Terms of Reference (TOR) for the social assessment are included in the PIP/PPP.

While there has been no systematic social assessment during Project preparation, active engagement of local stakeholders during preparation has been positive. In preparing Component 1 a consensus among the stakeholders confirmed that the Baltic Sea fisheries and water quality have deteriorated. Any effort for sustainable fisheries will benefit the fisheries and coastal communities, and improve businesses related to the fisheries sector. The Project will support efforts to find solutions to problems and conflicts between recreational and commercial fisheries, fisherman and fisheries managers, and for transboundary issues. For Component 2, evaluations during the pilot demonstration projects showed positive social benefits. Participating farm families noted increases in farm productivity, reduction of odor, and subsequent environmental improvements from improved manure storage. The coastal zone management activities are based on management plans that have been developed under the leadership of WWF as part of the HELCOM sponsored PITF Working Group on Coastal Lagoons and Wetlands. The activities will directly involve coastal fishing communities through small-scale investments and build local community capacity for sustainable environmental management. The community will benefit from the Project's efforts to improve understanding of ecosystem value.

Currently the social welfare system in the recipient countries provides little support to the farming, coastal and fishing communities, which have suffered significantly during the period of economic transition. The Project will support sustainable economic growth in agricultural, coastal and fishing populations by providing them with opportunities to increase their incomes directly through more efficient use of these resources. In agriculture the new approaches supported by the Project will reduce the need for use of fertilizers and increase productivity of fields and improve efficiency of water use. In coastal areas, Project supported planning and management activities will reduce problems caused by poor planning, increase efficiency of resource use, create employment in small scale local enterprises and stimulate both international and domestic tourism. The activities for fisheries management should diversify economic opportunities for fishermen and allow for more stable income from more stable fishery resources. Coastal zone management activities will strengthen community capacity by involving local people in community driven activities, and improve the local standard of living for the farmer and fishing communities. The long-term benefits, a sustainable ecosystem, will benefit the entire coastal community and business sector.

6.2 Participatory Approach: How are key stakeholders participating in the project?

The Project engages a range of stakeholders and beneficiaries in the preparation and implementation process. Many of these parties have previously been involved in a number of activities related to environmental management at the regional level under the JCP and/or national level activities associated with Government programs. The parties include:

- Cooperating international bodies—HELCOM, IBSFC, ICES;
- National and local governments;
- National universities and research institutes;
- Farming, coastal and fishing communities;
- Agricultural extension services;
- Local community based organizations and nongovernmental organizations;
- Public and private sector enterprises; and
- International partners.

Local technical and fisheries institutions, which participate in HELCOM/IBSFC/ICES activities, are familiar with current living marine resource management issues and these institutions have been actively engaged in defining Project activities for Component 1. Local rural communities, who have been involved in the BAAP project, provided insights on lessons learned and recommendations on Project modifications. Local BAAP extension services are actively engaged in the farm communities, and can provide insights on Project implementation. These extension services coordinate training programs, workshops and community outreach activities and provide technical assistance for environmental investments. The communities have been receptive to the activities, and are willing participants when resources are available. The coastal communities where the demonstration activities are proposed have already participated in locally based coastal zone planning and management studies undertaken in the context of the JCP.

Representatives of NEFCO, Sweden, United States (NOAA) and WWF have been participated in the design of the Project and various preparation missions. The team has consulted with experts from the European Union, Denmark, Finland, Germany, Norway, Poland, Sweden, United States and Coalition Clean Baltic concerning various aspects of the Project.

6.3 How does the project involve consultations or collaboration with NGOs or other civil society organizations?

Elements of the Project will be implemented under the coordination of the WWF, which has been actively working in the recipient countries for a number of years. It has successfully managed similar activities under Bank funded projects in Estonia, Latvia and Lithuania. These activities have been designed and will be undertaken in cooperation with local communities and nongovernmental organizations. In addition, the WWF will coordinate a capacity building activity for these same local counterpart groups as an element of Component 3. In Component 2, the Agricultural Advisory Services (AAS) and Farm Interest Organizations (FIO) will work with the farming communities during Project implementation and it is anticipated that these activities will continue after the Project is completed. The detailed design and implementation of the majority of the coastal zone management activities included in Component 2 will be undertaken by and/or involve coastal communities and local NGOs.

6.4 What institutional arrangements have been provided to ensure the project achieves its social development outcomes?

The close association of the Project activities with HELCOM, IBSFC and ICES programs, ensures that local stakeholders can make significant contributions to meet Project objectives. Individually, each of

these bodies provides an institutional framework within which the Project can work, and mechanisms will be made available to promote coordination and cooperation among the institutions and local stakeholders. A reporting, monitoring and evaluation system will be established under the supervision of HELCOM. On a local level, for Component 1 an institutional network will be established for local stakeholders. For Component 2, the LIUs will work directly with the FIO, AAS, and farming community. In addition, the Project includes a systematic social assessment to evaluate social impacts from the component activities and outreach program, to provide potential modifications to the Project design as needed. From the efforts within Component 3, local and regional capacity will be strengthened and the BSRP Steering Group will continue to operate in its capacity after the Project is completed.

6.5 How will the project monitor performance in terms of social development outcomes?

HELCOM is responsible for overall Project implementation and will monitor Project performance in terms of social development outcomes. The ongoing social assessment process will also be used to monitor performance in terms of social development outcomes and provide a mechanism for making adjustments particularly in Phase 3 to maximize these benefits. A monitoring and evaluation plan will be included in the PIP/PPP.

7. Safeguard Policies:

7.1 Are any of the following safeguard policies triggered by the project?

Policy	Triggered
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Natural Habitats (OP 4.04, BP 4.04, GP 4.04)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Forestry (OP 4.36, GP 4.36)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Pest Management (OP 4.09)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Cultural Property (OPN 11.03)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Indigenous Peoples (OD 4.20)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Involuntary Resettlement (OP/BP 4.12)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Safety of Dams (OP 4.37, BP 4.37)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)*	<input type="radio"/> Yes <input checked="" type="radio"/> No

7.2 Describe provisions made by the project to ensure compliance with applicable safeguard policies.

The Project requires preparation of an Environmental Management Plan (EMP) consistent with the requirements of the OP 4.01, "Environmental Assessment." The EMP has been prepared and will be made available prior to appraisal at the offices of the InfoShop, in the cooperating countries and at the Bank's Resident Missions in the five recipient countries. The potential application of OP 7.50 International Waters was reviewed with the Legal Counsel for safeguard policies, who has specific responsibility for the policy, and it was deemed not to be applicable to the Project.

To ensure compliance with the applicable safeguard policies, an Environmental Management Plan has been prepared and implemented to address the impacts identified in the environment section (E.5. above). The provisions of the environmental management plan will be included in the PIP/PPP.

F. Sustainability and Risks

1. Sustainability:

The Project will support a series of activities designed to promote the sustainable use of land, coastal and open sea resources through an ecosystem based approach to management. These activities support what is a long-term process for restoration of the ecological balance of the Baltic Sea, which is the goal of the JCP. Since these actions are management focused, with investments being used to support management objectives, the sustainability of the Project's interventions will rest upon the willingness and ability of parties at the regional, national and local level to adopt new approaches to environmental management, which are more preventive than curative in nature. The Project has been designed to accelerate the rate at which new management approaches are adopted and put into use in the Baltic Sea region; while the transition costs for these new approaches is significant, over the medium and long term these interventions should be institutionally, technically and financially sustainable by the three cooperating international bodies and the participating countries. In the case of the accession countries, some of these costs may be assumed by the various programs of the European Union.

2. Critical Risks (reflecting the failure of critical assumptions found in the fourth column of Annex 1):

Risk	Risk Rating	Risk Mitigation Measure
From Outputs to Objective		
Participating countries do not reach consensus in defining the key ecosystem indicators	N	The cooperating countries are all willing participants in the Project and efforts will be made to focus on a select number of key ecosystem indicators for land-coastal-open sea issues
Completion and output of initial Baltic Sea carrying capacity model for fishery yields is not satisfactory	M	An element of this Project is to upgrade the monitoring and assessment capacity; all efforts will be made to define the right goal, monitor the appropriate data and select the optimal models for the Baltic Sea
Consensus is not reached to initiate and apply ecosystem health indicators to fill gaps for HELCOM/ICES/IBSFC	N	Similar to the measure noted above, cooperating countries are all willing participants in the Project and efforts will be made to focus on the appropriate ecosystem health indicators
The Multiple Marine Environmental Disturbances (MMED) model is not applicable to the Baltic ecosystem	N	Before applying the model the necessary parameters and variables will be reviewed and a model adapted to the Baltic Sea conditions
Survey will not fill present serious gaps in spatial and temporal assessments of key fish stocks	N	An element of this Project is to upgrade the monitoring and assessment capacity; all efforts will be made to define the right goal and monitor the appropriate data
Support from local and national governments (MoE, MoA, MoF) discontinues	N	The recipient countries support HELCOM and its mandate

After the technical assistance is finished, the participating farmers will not implement farm management plans and will not use investments properly	M	Costs to farmers are very low and almost entirely offset by direct immediate benefits. Technical assistance will pay specific attention to sustainability. There are inherent cost-effective measures to maintain sustainability. Within two years after completing the Project, the social assessment process will include a check to ensure that investments are sustainable and investigate reasons if they are not sustainable
The activities and outcomes are not understood by the community	N	The PIP will include a participatory process and outreach program to inform and communicate with the fishing and farm community. Technical advisors are involved at the local levels, as are local governments, farmers, NGOs etc., to ensure the community is informed and educated about the Project
Other government programs contradict objectives of this Project	N	The newly established BSSG will include members from all relevant organizations and is explicitly charged with coordinating with other government programs. Mechanisms will be in place, especially through outreach programs, to ensure that national and local governments, farmers' chambers, etc. receive public recognition for their contributions to the Project
HELCOM, IBSFC and ICES do not continue to collaborate after Project is completed, in implementing ecosystem-based management approach	N	A major objective is to strengthen regional and local governance and management. The three regional bodies will appreciate the added value of cooperating and integrating the decision making process. In addition, the recipient countries requested this Project and will have the strength and political will to optimize this investment and support institutional cooperation
From Components to Outputs Local governments do not remain committed and do not continue contributing to the Project (particularly to the LIU)	M	LIUs organized under BAAP have been successfully operating independent of local government funding. Agreements and conditions for participating will be established with local governments at the outset, specifying their commitment and contribution to the Project. Outreach activities will give public recognition to local governments' contributions, and they will report widely on direct benefits to the farmers. The Project will involve key stakeholders, such as farmers, extension agents, and NGOs to broaden support for initiatives of

Governments, Bank and co-financiers cannot streamline procedures for Project implementation	M	this type Substantial efforts will be made in Project preparation and the start-up phase to simplify procedures included as key aspects in the PIP rather than grant agreement, so that they can be adapted during implementation
Co-financing is not available at appropriate time	N	Donors have been engaged in the Project preparation process. If funds are not available, then a search for other potential co-financiers for the Project will be undertaken
Project incentives are not sufficient to motivate farmers to participate in the Project	N	Regular reviews during implementation will be conducted. If problems occur, it is possible to increase the portion of the Project dedicated to outreach and training. It is also possible to increase the proportion of investment costs covered by the Project
Overall Risk Rating	M	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

The Project is designed to minimize the technical, economic, financial, social, environmental and institutional risks. Text in the “Risk” column is based on the Critical Assumptions from the fourth column of Annex 1.

3. Possible Controversial Aspects:

By minimizing the risks, it is anticipated that the Project will not have any social, ecological, institutional, or economic controversies. The proposed activities have formally been given high priority by HELCOM, the European Union, national authorities of the recipient countries, and by international and local NGOs. Some proposals related to the management of fishery resources could potentially be controversial at the national or local levels. This will be carefully monitored by HELCOM, IBSFC and ICES to identify issues when and if they arise and actions will be taken to address these issues.

Type of Risk: S

Rating: M

Types of Risk S (Social), E (Ecological), P (pollution), G (Governance), M (Management capacity), O (other)

Risk Rating – H (High), S (Sustainable Risk), M (Modest Risk), and N (Negligible or Low Risk)

G. Main Conditions

1. Effectiveness Condition

HELCOM will appoint the PIT staff in accordance with the terms of the PIP/PPP.

HELCOM has appointed the component coordinators for Part A, and a component coordinator for Part B,

A Project Implementation and Procurement Plan (PIP/PPP), including the Operations Manual covering the Financial Monitoring Reports system, satisfactory to the Bank, has been adopted.

2. Other [classify according to covenant types used in the Legal Agreements.]

HELCOM will carry out the Project in accordance with the requirements of the Project Implementation and Procurement Plan.

HELCOM will maintain the PIT with staff and resources under terms of reference satisfactory to the Bank until completion of the Project.

HELCOM will maintain a financial management system, including records and accounts, and prepare financial statements, in a format, acceptable to the Bank, adequate to reflect the operations, resources and expenditures related to the Project.

HELCOM will prepare and furnish to the Bank a Financial Monitoring Report, in form and substance satisfactory to the Bank

HELCOM will be responsible for standard reporting and supervise the achievements of the component benchmarks and performance triggers for the three phases.

HELCOM will implement the Environmental Management Plan and undertake social assessment

HELCOM will convene regular meetings of the BSSG until completion of the Project, with terms of reference and composition satisfactory to the Bank.

H. Readiness for Implementation

- ☐ 1. a) The engineering design documents for the first year's activities are complete and ready for the start of project implementation.
- ☐ 1. b) Not applicable.
- ☒ 2. The procurement documents for the first year's activities are complete and ready for the start of project implementation.
- ☒ 3. The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality.
- ☐ 4. The following items are lacking and are discussed under loan conditions (Section G):

Design documents will be prepared as part of Project implementation.

I. Compliance with Bank Policies

- ☒ 1. This project complies with all applicable Bank policies.
- ☐ 2. The following exceptions to Bank policies are recommended for approval. The project complies with all other applicable Bank policies.

Inesis Kiskis

Team Leader

Laura Tuck; Jane E. Holt

Sector Manager/Director

Julian F. Schweitzer; Roger W. Grawe

Country Manager/Director

Annex 1: Project Design Summary

EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
Sector-related CAS Goal: Improve environmental management capacity in dealing with transboundary issues	Sector Indicators: The newly developed ecosystem management tools are being tested on pilot basis on the Eastern Coast of the Baltic Sea	Sector/ country reports:	(from Goal to Bank Mission) Sustained commitment of the recipient country governments to ecosystem based approach in managing the Baltic marine resources
GEF Operational Program: Better land and water resource management practices on an area wide basis	Outcome / Impact Indicators:		
Global Objective: 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	Outcome / Impact Indicators: Institutional arrangements are in place for joint monitoring, assessment and evaluation of living marine resources A technical assessment and joint monitoring system developed to determine abundance dynamics of the key Baltic fish species, as well as the alien species	Project reports: Reports of the working groups	(from Objective to Goal) HELCOM, IBSFC and ICES cooperate and coordinate their respective work in implementing the Project

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
<p>Output from each Component:</p> <p>Component 1. Large Marine Ecosystem Management</p> <p>A system for monitoring, assessing and evaluation of the status of the Baltic Sea marine resources created and ready for application</p> <p>Component 2. Land and Coastal Activities</p> <p>a) Environmentally sound farming techniques resulting in reduced nutrient run off piloted</p> <p>b) establish a system for monitoring and assessment of non-point source pollution originating from these farms</p> <p>c) community based coastal zone management activities are promoted</p> <p>Component 3. Institutional Strengthening and Regional</p>	<p>Output Indicators:</p> <ul style="list-style-type: none"> • A network of Coordination Centers and lead laboratories established • A series of joint workshops/seminars conducted • Joint monitoring programs developed • Data evaluation and assessment protocols agreed upon by all cooperating parties • Selected Monitoring equipment procured • Initial near shore and open sea surveys conducted • Ships of opportunity contracted • Formats for international fisheries data bases created • Salmon river restoration action plans prepared • Salmon river restoration at least in 3 rivers • 50 farms/individual farmers have participated in Environmental Management courses offered by BSRP • 25-30 farms/individual farmers have participated in agri-environmental investment scheme • Surface and ground water monitoring stations established in demonstration watersheds • Baltic Agri-Environmental Assessment Network Established • Semi-natural grasslands in Vainameri maintained • Small business incubator or in Mersrags established • One wetland restored in Kursiu lagoon/Kurshsky Zaliv Area 	<p>Project reports:</p> <ul style="list-style-type: none"> • Quarterly reports from Component 1 Coordinator • Annual reports of the Baltic Sea Steering Group to National governments • Bank supervision mission reports • SLU reports to HELCOM • AAS reports • Bank Supervision missions • Instream water quality reports • Groundwater quality (including the drinking water well) monitoring reports • Nutrient balance calculations • Results of running the watershed model • Project progress reports prepared by WWF 	<p>(from Outputs to Objective)</p> <ul style="list-style-type: none"> • Participating countries reach consensus on common Environmental Quality Indicators • The Multiple Marine Ecological Disturbances assessment model is applicable to the Baltic Sea ecosystem • The training packages are adequately marketed and farmers are interested to participate • The terms and conditions for financing the investments are attractive end to farmers and competitive on market • Farmers are willing to participate in the monitoring program • Local communities are willing to participate in the coastal zone management program

<p>Capacity Building</p> <p>Increased awareness among stakeholders of the value of the Baltic Sea ecosystem goods and services at the regional, national and local level</p> <p>Component 4. Project Management</p> <p>An effective project management structure created</p>	<ul style="list-style-type: none"> • A Baltic Sea Steering Group established and operational • A series of meetings on regional administrative socioeconomic and technical matters conducted <p>PIT in HELCOM is operational by effectiveness of the Grant</p>	<ul style="list-style-type: none"> • Minutes of the BSSG meetings • Workshop reports • Terms of reference for the Regional socioeconomic assessment prepared (to be conducted in Phase 2 of the BSRP) • Quarterly Progress reports • Bank Supervision mission reports 	<p>Governments and cooperating institutions delegate their representatives to BSSG</p> <p>The parties to Helsinki Convention and the HELCOM Secretariat remain committed to the Project</p>
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Annex 2: Detailed Project Description

EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1 BALTIC SEA REGIONAL PROJECT - PHASE 1

A. OVERVIEW

1. **Globally Important Region.** The Baltic Sea ecosystem is a semi-enclosed water body connected with the North Sea by narrow and shallow sounds that limit water exchange. Natural fluctuations are characteristic of the Baltic Sea ecosystem; the water is largely regulated by the sporadic inflows of saline and oxygen-rich North Sea water and intermediate stagnation periods. Contaminants and nutrients enter the Baltic Sea via river run-off, through atmospheric deposition; and from human activities at sea. It is estimated that renewal of the water of the Baltic Sea takes about 25-30 years. Although the Baltic Sea ecosystem provides goods and services to 80 million people inhabiting its shores and drainage basin, its full social and economic benefits are not currently being realized. Contaminants, especially persistent chemicals and other pollutants, remain in the Baltic Sea for a long time. Transboundary 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 use of fisheries; and (v) diseases in marine life associated with pollution and emerging problems with introduced “alien” species.

2. **Long-Term Program.** Since the late 1960s, the status of the Baltic Sea marine environment remains a major concern of the riparian country Governments. The Baltic Sea Joint Comprehensive Environmental Action Program which is coordinated by the Helsinki Commission (HELCOM), also known as the JCP, was mandated by Heads of Government meetings held in Ronneby, Sweden (1990); Visby, Sweden (1996); and Riga, Latvia (1998). The objective of the long-term Program is to restore the ecological balance of the Baltic Sea through a series of complementary preventive and curative actions. It includes actions at 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 at the Baltic Sea.

3. **First Phase of JCP.** The first phase of the program addressed primarily municipal and industrial pollution sources in all riparian countries. World Bank played a visible role in implementing JCP in three Baltic States and Poland by supporting Environmental projects in Haapsalu-Matsalu Bays, Estonia, Daugavpils and Liepaja, Latvia, Klaipeda and Siauliai in Lithuania. These projects helped the recipient countries to improve their water and wastewater services and to launch activities to reduce the agricultural non-point pollution. Also, introduction of the integrated coastal zone management practices was an integral part of the first phase projects. In case of Poland, support was first provided through the Environmental Management Project and lending operations to support improved municipal water and wastewater services. In the Russian Federation, the Bank has worked to rehabilitate and upgrade water and sanitation services in St. Petersburg.

4. **Second Phase of JCP.** The Program entered a second phase of implementation in March 1998, following approval by the Ministers of Environment of the region of the JCP “Recommendations for Updating and Strengthening,” which reviewed progress to date, identified priorities for future action and developed lessons learned to guide upcoming efforts. Addressing the non-point source pollution remains high on environmental agenda as it contributes nearly half of nutrient pollution load to the Baltic Sea. The Polish Rural Environment Protection Project launched a series of the “second generation” projects which are jointly supported by the GEF, NEFCO, World Bank in cooperation with EU, bi-lateral donors

and operational NGOs. The Municipal Water and Wastewater project in the Russian Federation will support investments in several municipalities in the Baltic Sea drainage basin.

5. **Implementation of the JCP.** The proposed Baltic Sea Regional Project will support implementation of the Joint Comprehensive Environmental Action Program for the Baltic Sea (JCP), which was prepared under the coordination of the Helsinki Commission by a high-level task force comprised of representatives of cooperating countries, international financial organizations and non-government organizations. The JCP, as adopted in 1992, and strengthened and updated in 1998, constitutes the “Strategic Action Plan” for the Baltic Sea region. The proposed Project will introduce ecosystem-based assessment and management of the environment and resources of the Baltic Sea. It will serve as a mechanism for managing the common resources of the Baltic Sea ecosystem through strengthened cooperation between three international bodies - HELCOM, IBSFC, and ICES - and the recipient countries. The Project will provide linkages with ongoing programs in the region and implement priority actions that address transboundary environmental issues, to achieve sustainable production of biological resources, conservation of living marine resources, and control of non-point source pollution from agriculture and other contaminants threatening the health of the ecosystem.

6. **Recipient Countries and Cooperating Parties.** The recipient countries include the eastern littoral countries of the Baltic Sea drainage basin - Estonia, Latvia, Lithuania, Poland and the Russian Federation. The cooperating parties include three specialized institutions - HELCOM, IBSFC and ICES - complemented by the European Union (EU), Denmark, Finland, Germany, Norway, Sweden, United States, NEFCO, World Bank, and World Wide Fund for Nature (WWF). Preparation of the Project has been coordinated with two GEF supported activities, the Rural Environmental Protection Project in Poland and the Global International Waters Assessment (GIWA). The Project preparation process has also involved the participation of the Secretariat of Baltic 21.

7. **Project Goals and Objectives.** Project design is based on the Large Marine Ecosystem Concept (LME) and targets cooperative management of land, coastal and marine transboundary issues. Its objective is 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 long-term goal of the JCP is to support the “restoration of the ecological balance” of the Baltic Sea through a phased program of actions. Consistent with JCP priorities, measures will also be taken to improve environmental management at the regional, national and local level by strengthening assessment and monitoring, and by supporting environmentally sound agriculture, coastal management, and fishery practices.

8. **Approach.** The LME concept includes five interrelated modules: productivity related to carrying capacity, ecosystem health, fish and fisheries, socioeconomic, and management.¹ Concept provides a framework for an ecosystem-based approach for sustainable management. The ecosystem-based management approach provides an additional tool to improve degraded conditions in the Baltic Sea. This approach recognizes civil society, economics, and the land, coastal and marine environments as an integrated system. Figure 1 illustrates the Project design and integrated approach. The Project design is comprehensive, addressing JCP objectives, threats to the Baltic Sea and transboundary issues through land, coastal and marine-based activities (see Annex 12, Transboundary Analysis).

9. **Project Phases.** The Baltic Sea Program, would be implemented over a 6 year period in three phases. The current project constitutes Phase 1. Phases 2 and 3 will be implemented as stand alone projects and will be submitted for approval by GEF Council and the World Bank Board of Directors

separately. The three Phases are as follows:

- **Phase 1. The Current Project - Introduction of the Ecosystem Approach (2003-2006).** Establishment of the regional framework for introduction of the ecosystem approach; mobilization of partners in management of coastal and open sea marine resources; and initial activities for land and coastal management.
- **Phase 2. Demonstration of the Ecosystem Approach (2006-2008).** Undertaking cooperative activities for assessment and management of coastal and open sea marine resources; expansion of activities for land and coastal management; and joint activities for linkage of land, coastal and open sea management programs.
- **Phase 3. Application of the Ecosystem Approach (2008-2009).** Identification of next steps by the cooperating parties for expanded application of the ecosystem approach for land, coastal and open sea management; completion of field based management and demonstration activities; and preparation of evaluation and assessment studies.

10. **Project Components. Phase 1.** The Project has four components (summarized in Table C of this Annex). The Project has a total budget of US\$ 12.12 million and will be implemented over a three-year period from 2003 to 2006. The components and component activities include:

- **Component 1 - Large Marine Ecosystem Management Activities** (US\$5.62 million)
 - Activity 1 - Strengthening Institutional and Technical Capacity,
 - Activity 2 - Coordinated Monitoring Surveys in the Eastern Baltic Sea,
 - Activity 3 - Cooperative Local and Regional Ecosystem Evaluations and Assessments, and
 - Activity 4 - Demonstration Activities.
- **Component 2 - Land and Coastal Management Activities** (US\$4.99 million)
 - Activity 1 - Agricultural Interventions,
 - Activity 2 - Monitoring and Assessment of Non-Point Source Pollution,
 - Activity 3 - Land-Based Coastal Zone Management, and
 - Activity 4 - Baltic Sea Regional Environmental Assessment Network (RAN).
- **Component 3 - Institutional Strengthening and Regional Capacity Building** (US\$ 0.15 million)
 - Activity 1 - Regional Capacity Building
 - Activity 2 - Regional Socioeconomic Assessment.
- **Component 4 - Project Management** (US\$1.36 million)
 - Activity 1 - Project Management.

11. **Performance Indicators.** The performance indicators are summarized in Annex 1. Performance indicators of progress towards achieving the program purpose, and performance triggers to move from

one phase to the next will be tracked through a monitoring and evaluation system. This system is detailed in the Project Implementation Plan and Project Procurement Plan (PIP/PPP).

B. PROJECT MANAGEMENT

Project Management and Administration

12. **Cooperating International Bodies.** Responsibility for Project management and implementation will rest with HELCOM in coordination with IBSFC and ICES. Though each institution has a distinct operational mandate, their statutes call for cooperation and coordination with other bodies. The primary roles of these three bodies are described briefly below.

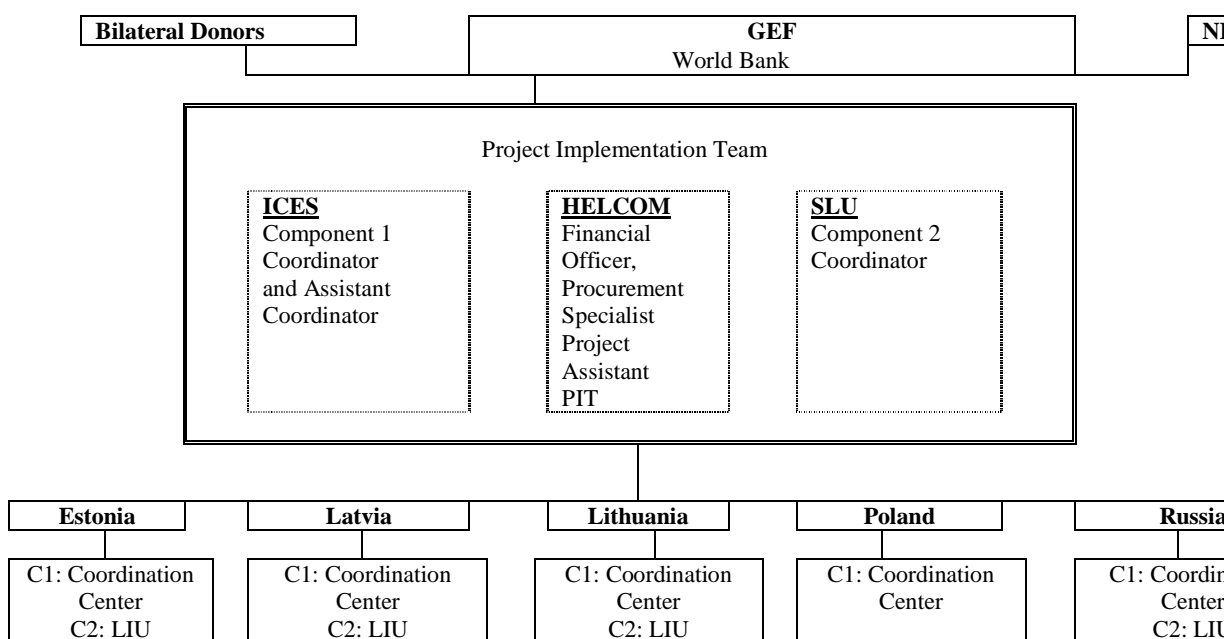
- ***Helsinki Commission (HELCOM).*** HELCOM, located in Helsinki, is the governing body of the Helsinki Convention (1974, 1992), which has as its mandate to protect the Baltic Sea marine environment. The Commission meets annually, with ministerial level representation. Decisions taken by the Helsinki Commission, which are reached unanimously, are regarded as recommendations to the Governments concerned. The implementation of the JCP is coordinated by the HELCOM Program Implementation Task Force (PITF), which is comprised of representatives of the EU, countries in the drainage basin, international financial institutions, and nongovernmental organizations (NGOs).
- ***International Baltic Sea Fishery Commission (IBSFC).*** IBSFC, based in Warsaw, was established pursuant to Article V of the Convention on Fishing and Conservation of the Living Resources in the Baltic Sea and the Belts (Gdansk Convention, 1973). IBSFC's primary responsibilities are to coordinate management of the living resources in the Convention area by collecting, aggregating, analyzing and disseminating statistical data. It also recommends regulatory measures and promotes enforcement schemes. Each year IBSFC establishes the "Total Allowable Catches (TACs)" for commercial stocks in the Baltic and provides the Contracting Parties with recommendations to be implemented in their respective fishery zones during the next calendar year.
- ***International Council for Exploration of the Sea (ICES).*** ICES, based in Copenhagen, currently operates under the terms of its 1964 Convention. It is the oldest intergovernmental organization in the world concerned with marine and fisheries science. Since its establishment in Copenhagen in 1902, ICES has been a leading scientific forum for the exchange of information and ideas on the sea and its living resources, and for the promotion and coordination of marine research by scientists within its member countries. Since the 1970s, a major area of ICES work as an intergovernmental marine science organization is to maintain an international science program and to provide information and advice contracting parties and international commissions (including the European Commission, HELCOM, and IBSFC) for the protection of the marine environment and for fisheries conservation.

13. Each institution has expanded its mandate to incorporate ecosystem considerations in its work. The Project's objective of ecosystem-based management of Baltic Sea resources provides an opportunity for the three organizations to cooperatively apply ecosystem-based management and assessment methodologies for the Baltic Sea.

14. **Project Management.** The institutional arrangements are based on a decentralized approach that combines regional and national level coordination with local level implementation. Primary responsibility for Project management will rest with HELCOM, which will serve as the executing agency

for the Project and will undertake this work in full coordination with IBSFC and ICES. For this purpose a Project Implementation Team (PIT) will be established in HELCOM headquarters in Helsinki, Finland. The PIT will be staffed by two HELCOM Professional Secretaries and the Administrative Officer of HELCOM. This staff will be assisted by a Financial Assistant and a Procurement Consultant that will support procurement and disbursement actions as well as by a Project Assistant in co-operation with the Component Coordinators (C1C and C2C). The Executive Secretary of HELCOM will supervise the work of PIT. The BSRP Core Group, which has supported preparation of the Project, will be replaced by the Baltic Sea Steering Group (BSSG) that will provide broad-based support for the implementation process. The BSSG will consist of members from HELCOM, IBSFC and ICES; senior level representatives of the Baltic riparian countries and NOAA. The BSSG will be jointly chaired by the Executive Secretary of HELCOM and Secretary General of ICES. It will not compete with any of the existing HELCOM or ICES Regional Working Groups, but cooperate to facilitate regional capacity building for a coordinated ecosystem-based management approach for the Baltic Sea ecosystem. Figure 2 illustrates the Project organization and management structure. The PIP/PPP provides TORs and details of the institutional and Project management arrangements.

Table 2. Project Administrative Structure



15. **Component Management.** The following arrangements will be used for management of the components included under the Project:

- **Component 1 – Large Marine Ecosystem Management Activities.** Component 1 will be implemented under the supervision of ICES, working closely with IBSFC and HELCOM. Component 1 Coordinator (C1C), placed in ICES, will be responsible for overall management of Component 1 and will supervise the implementation of Project-supported activities. The Assistant Coordinator for Component 1 (C1AC) will support the work of the C1C; he or she will operate at the local level and be responsible for day-to-day Project management and implementation. The C1AC will work directly with the Local Project Managers (LPM) located at the Coordination Centers. The Coordination Centers and Lead Laboratories will coordinate and supervise implementation of

component activities in terms of ecosystem health, productivity and fisheries. The LPMs will be contracted from established institutes in each recipient country that engage in ICES activities. They will be responsible for day-to-day implementation in their respective countries. The PIP/PPP provides TORs for the C1C and C1AC.

- ***Component 2 - Land and Coastal Management Activities.*** Component 2 will be implemented under the supervision of HELCOM, Swedish University of Agricultural Sciences (SLU) and WWF.
 - *Agricultural Activities.* The SLU will manage agricultural activities under this component on behalf of HELCOM. The Component 2 Coordinator (C2C), located in SLU, will be responsible for overall management of Component 2 and will work with existing field structures established under the Swedish supported BAAP project and the Bank and GEF supported Rural Environmental Protection Project in Poland. Local Implementation Units (LIUs) will operate in each country, and will be responsible for day-to-day Project management and implementation. The LIUs will advise regional groups and organizations, and will work closely with local counterparts and farmers. The LIUs will be staffed with a unit manager, accountant, technical specialists, and agricultural advisors. The PIP/PPP provides TORs for the C2C and the LIUs.
 - *Coastal Zone Management Activities.* The coastal zone management activities under Component 2, in cooperation with Component 1, will be managed by the WWF, which will provide a coordinator to work with the Area Task Teams that were established in the demonstration areas during the HELCOM Project Implementation Task Force Working Group on Lagoons and Wetlands (PITF MLW) to support planning and management studies. The studies will serve as the basis for implementation of these activities, which will be coordinated by local governments, community-based organizations and NGOs. The PIP/PPP will provide TORs for the ICZM coordinator.
- ***Component 3 - Institutional Strengthening and Regional Capacity Building.*** This component will be managed by HELCOM in cooperation with IBSFC and ICES. The work of the BSSG, which will review and disseminate information and management tools developed under the Project, will be an element of this component. Activities under this component will be expanded during Phases 2 and 3 of the Project.
- ***Component 4 - Project Management.*** Component 4 will provide support for Project management by HELCOM and the cooperating parties. This includes support for the PIT at HELCOM and the various administrative services required for Project reporting, procurement, disbursement and financial management. HELCOM will retain the services of a qualified consultants, with significant experience in Bank procedures, to assist with procurement, disbursement and financial management actions. The procurement consultant will undertake preparation and review of bid documents for civil works goods and consulting services; facilitate evaluations; and support HELCOM in contract negotiations. The Financial Assistant and Project Assistant will assist HELCOM's Administrative Officer in managing the Special Account, executing the payments to consultants, contractors and suppliers, and will run the BSRP's Financial Monitoring Reporting system.

The social assessment, referred to in Component 2 (see Activity 3 - Land-Based Coastal Zone Management), will be funded out of Component 4 proceeds, and will be used to obtain guidance on optimizing local community involvement and benefits so that local communities use natural and economic resources more efficiently, improve their livelihood, and conserve biodiversity.

16. **Project Implementation Plan (PIP) and Project Procurement Plan (PPP).** The PIP/PPP, prepared by HELCOM, IBSFC, ICES, and cooperating countries, describes in detail the Project implementation and procurement process. The PIP includes a description of the major activities, terms of reference and technical specifications, procurement plan, together with the monitoring and evaluation plan. The PPP identifies the procurement of goods, works and services in accordance with “Guidelines for Procurement under IBRD Loans and IDA Credits”. Project activities not financed by the GEF will be procured in accordance with regulations of the concerned Governments or co-financing institutions. Procurement will follow the Project procurement identified in the PIP/PPP and will be linked with the overall implementation schedule.

17. **Key Elements of the PIP/PPP.** The PIP/PPP includes the following key elements:

- For Component 1, the PIP/PPP:
 - Identifies the strategy for establishing the technical Coordination Centers,
 - Describes methods for coordinating the monitoring and assessment process and upgrading monitoring and assessment capacity,
 - Identifies equipment and goods needed for monitoring and assessment,
 - Outlines requirements for demonstration activities, and
 - Includes TORs for all technical assistance and services.
- For Component 2, the PIP/PPP:
 - Describes requirements for eligible agricultural interventions and demonstration activities,
 - Outlines investment support needs and farm credit conditions,
 - Provides a framework for watershed monitoring and assessment network,
 - Describes the coastal zone management activities, and
 - Identifies equipment, goods and deliverables, TORs for technical assistance and services.
- For Component 3, the PIP/PPP:
 - Provides a framework for institutional strengthening and regional capacity building activities, and
 - Includes Terms of Reference for for services, training and deliverables.
- For Component 4, the PIP/PPP:
 - Includes TORs for all levels of Project management responsibilities, and social assessment, and
 - Provides technical specifications for equipment and goods required for the PIT.
- For the overall Project, the PIP:
 - Provides an overview of procedures that will be used for procurement,

- o Describes the applicable procedures of the World Bank,
- o Where appropriate, notes the applicable procedures of co-financiers, and
- o Presents a procurement plan for the first phase (2002-2005) of the Project.

18. **Changes in the PIP/PPP.** The PIP/PPP can be modified by HELCOM during Project implementation, in agreement with the World Bank. In addition, during the life of the Project, the composition and responsibilities of the various Project management units may require adjustment. At any time, the PIP/PPP can be revised by HELCOM to reflect these administrative changes in agreement with the World Bank.

19. **Project Monitoring and Evaluation.** HELCOM will report to the Bank and be responsible for ensuring that all GEF funded activities are carried out in compliance with Project design and contracts. The Project will comply with the required monitoring and evaluation procedures as required for the Implementation Completion Report, which will be completed no later than six months after the closure of the Project. The PIP/PPP will detail the process for these reviews.

By Component:

Project Component 1 - US\$5.62 million

C. PROJECT COMPONENT 1: LARGE MARINE ECOSYSTEM MANAGEMENT ACTIVITIES

20. **Introduction.** The prevailing coastal and open sea water management issues in the Baltic Sea are ecosystem impacts from eutrophication and over fishing. Successful management of these issues requires strengthened institutional and technical coordination of information, resources and management activities at the regional and local levels. While threats to the system and other transboundary issues have been identified, current resource management policies and practices are not holistic and ecosystem-based. As part of their commitment to HELCOM, the recipient countries, except Lithuania, participate in collecting data through the HELCOM-Cooperative Monitoring in the Baltic Marine Environment (COMBINE) network. However, the recipient countries need to strengthen their institutional and technical capacity, and improve standards for quality assurance to meet their commitments under the Helsinki Convention. Current monitoring and assessment practices are not complete in the eastern Baltic Sea and provide inadequate information for comprehensive ecosystem management of Baltic Sea resources.

21. **An Ecosystem-Based Approach.** To address these issues and meet national obligations under the Helsinki Convention, Component 1 was designed within an LME context with an ecosystem-based approach to monitor, assess, and manage the Baltic Sea resources. The component's primary objective is to introduce the principles and demonstrate the application of the LME concept to Baltic Sea coastal and open sea resources. Component 1 activities are interdependent and will be used jointly to overcome short-term sector-by-sector attempts to manage resources and environments. This approach will increase the emphasis placed on the multiple interactions between resource use, human interventions, and environmental variability. The component will introduce jointly planned and implemented multi-national monitoring surveys that facilitate local cooperation and coordination and use of innovative methodologies for assessing the changing state of the ecosystem. It will support implementation of actions that consider whole ecosystem effects and optimize social and economic benefits for the Baltic Sea community of stakeholders.

22. **Phase 1 Activities.** In coordination with the other Project components, Component 1, during the course of the three year project, will: (i) establish local and regional administrative and organizational

mechanisms, through the Coordination Centers, for cooperative monitoring and assessment activities, (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, and EU environmental and water management directives (Russian Federation excluded).

23. **Participating Institutions.** The participating institutions in Component 1 generally include the technical institutes who have been engaged in the work of ICES within the Baltic Sea Region. They will serve as the national Coordination Centers and Lead Laboratories for this component. The participating local institutions include: (i) Estonia: Estonian Marine Institute, Tallinn; (ii) Latvia: Latvian Fisheries Research Institute, Riga; (iii) Lithuania: Klaipeda University, Institute of Ecology, Klaipeda; (iv) Russian Federation: AtlantNIRO, Kaliningrad; and (v) Poland: Sea Fisheries Institute, Gdynia. Other participating institutions in the region include: (i) Denmark: Danish Institute for Fisheries Research, Copenhagen; (ii) Finland: Finnish Institute for Fisheries Research, Helsinki; (iii) Germany: Baltic Fisheries Research Institute, Rostock; and (iv) Sweden: Swedish Institute for Marine Fisheries Research, Lysekil.

24. **Primary Areas of Focus.** In general, the Baltic Sea is one of the most intensively monitored; however, the coverage, the quality and reliability of data has remained uneven. Over the last decade, the Baltic Countries, Poland and Russian Federation have had significant difficulties in meeting their reporting obligations to HELCOM, IBSFC and ICES. Also, the laboratory equipment has not been fully intercalibrated between the laboratories on the Eastern and Western coasts of the Baltic Sea. The data assessment and evaluation methodologies have not been uniform. This applies both to monitoring of the state of marine environment and to monitoring of agricultural run-off. The mentioned factors have had a negative impact on quality of scientific advice to decision makers and, subsequently, on quality of the decisions made.

25. The Project will support activities in the coastal near shore environment of the Eastern Baltic Sea and in selected adjacent sections of the open sea environment. In general, the coastal near shore activities and monitoring network will correlate with land-based coastal and associated demonstration activities supported under Component 2, and noted on maps IBRD 31062 and IBRD 31063. The planned open sea monitoring will include the current ICES network; this involves activities in ICES Subdivisions 25, 26, 28, 29S and 32. These areas include the Baltic Proper, the sea east of the island of Bornholm, and the Gulf of Finland. The economic zones of the recipient countries are part of these Subdivisions.

26. **Component 1 - Management.** Management of Component 1 will be as follows:

- **Role of ICES and C1C.** As the coordinator for Component 1, ICES will be responsible for implementing, managing and reporting on component activities to HELCOM and the BSSG. ICES will supervise C1C and C1AC. The C1C together with the C1AC will be responsible for supervising component coordination and implementation. The Coordinator will work directly with HELCOM. The C1C will be a non-voting member of the BSSG.
- **Role of the C1AC.** The C1AC will work locally and assist in day-to-day Project management and supervise implementation. The C1AC will serve as the LIU and work closely with ICES, HELCOM and the LPMs at the Coordination Centers. In addition to daily responsibilities, the C1AC will assist the LPMs in developing and preparing standardized analytical and monitoring reports.

- ***Role of the LPMs and Coordination Centers.*** The LPM will be contracted from institutes in each recipient country that engage in ICES activities. Depending upon specialization, the institutes will become technical Coordination Centers for ecosystem health, productivity, socioeconomics, and fisheries information. In addition, a GIS-Data Coordination Center will synthesize the data information for assessment and modeling purposes. The LPM will be responsible for day-to-day implementation at the national level. In addition, the LPM will compile results from Project activities and report them to the C1C and C1AC. The C1AC will work closely with the LPM and procurement consultant in preparing bidding documents, carrying out evaluations, and drafting contracts. Representatives from the LPMs will also participate in selected ICES and HELCOM meetings relevant to the Project.

27. **Component 1 - Activities.** Component 1 has a primary goal to develop technical and local capacity in the eastern Baltic countries, and through joint monitoring and assessment efforts and demonstration activities provide incentives to improve the socioeconomic well being of targeted communities. The approach to this component is to strengthen local institutional and technical capacities, compile and evaluate information through integrated assessments, and facilitate identification and application of proposed ecosystem-based management tools. Demonstration activities will illustrate a range of possible cost-effective measures to improve management of the coastal ecosystem while building capacity of coastal communities. The demonstration activities and the collection and evaluation of ecosystem parameters will provide building blocks to better understand the Baltic Sea ecosystem process and impacts of human activities on the eastern region of the sea. This process will also provide proposed strategies to promote economic incentives and improve regional land, coastal and open sea ecosystem management practices.

- ***Activity 1 - Strengthen Institutional and Technical Capacity.*** Activity 1 will establish the institutional framework for undertaking component supported activities to strengthen institutional and technical capacity. It will support the following activities:
 - o ***Sub-activity 1(a) Strengthened Institutional Capacity of Coordination Centers.*** The Coordination Centers are fundamental to implementing Component 1 activities, and for linkages with other component activities. The Centers, organized at technical institutes currently involved in ICES efforts, will coordinate joint efforts and implement component activities and sub-activities. The Centers will include a Fisheries Coordination Center, Productivity Parameters Coordination Center, Environmental Health Parameters Coordination Center, and a GIS-Data Coordination Center.
 - o ***Sub-activity 1(b) Conduct Regional Training and Workshops to Strengthen Technical Capacity.*** Training and workshops will strengthen technical capacity and will coordinate and link the activities under the component with technical aspects of other regional programs.
 - o ***Sub-activity 1(c) Coordinate Coastal-Near Shore Activities.*** This will include planning and coordination of coastal monitoring surveys in the eastern Baltic Sea to fill the gaps for fisheries and environmental parameters, as mandated by work programs of HELCOM and ICES. This will include collection of data on additional key ecosystem indicators including important productivity parameters (phyto- and zooplankton, phytobenthos). Trawlers will be used to extend the surveys to shallower coastal waters where marine research vessels cannot go but whose information is needed for a comprehensive ecosystem-based management for the region.
 - o ***Sub-activity 1(d) Coordinate Open Sea Activities.*** This will include planning and coordination of

open sea monitoring surveys that will calibrate between vessels (for regional efficiency and cost-benefits) and use existing research vessels for multi-national joint scientific surveys, particularly for the eastern Baltic Sea. This activity will expand the geographic coverage of open sea activities in the eastern Baltic Sea to reinforce the current ICES monitoring network and fill gaps in both fisheries and environmental parameters to include additional ecosystem indicators and productivity parameters (phyto- and zooplankton, phytobenthos), as mandated by ICES and HELCOM.

- **Activity 2 - Operationalize Monitoring and Assessment Surveys in the Eastern Baltic Sea.** Activity 2 will be planned in Phase 1 and fully commence in Phase 2 of the BSRP program, to include procurement of necessary technical equipment for coastal and open sea monitoring surveys and execution of the surveys as coordinated and planned during Activity 1. It will include:
 - *Sub-activity 2(a) Conduct Coastal Near Shore Monitoring Surveys.* Coastal fish, productivity and ecosystem health parameters will be monitored and data collected as required by the HELCOM/COMBINE monitoring program. Data will be collected based on ICES standards.
 - *Sub-activity 2(b) Conduct Joint Open Sea Monitoring Surveys.* The joint open sea surveys will parallel efforts in the coastal waters, but will include a multi-national technical team to conduct combined monitoring of fish, productivity and ecosystem health parameters from research vessels. The proposed open sea surveys will take place annually, as required and supervised by ICES. The surveys to be supported by the component will include Abundance Surveys - BITS (Baltic International Trawl Survey) for demersal (bottom) fish, in March-April, and October-November, and the Baltic International Acoustic Survey (BIAS) for pelagic fish.
 - *Sub-activity 2(c) Ships of Opportunity (SOOPs).* Data from ferries and cutters will be obtained from equipment leased on board and the crew will be trained for data collection. Data will be collected based on ICES standards.
 - *Sub-activity 2(d) Data Collection from Commercial Fishing Vessels.* Data from commercial fishing vessels will be obtained from landings and logbooks, and landings statistics from commercial fishing vessels will be collected in accordance with accepted technical standards. Data will be collected based on ICES standards.
- **Activity 3 - Cooperative Local and Regional Ecosystem Evaluations and Assessments.** Activity 3 will commence in Phase 1; however, most of the activities will be carried out in Phases 2 and 3. Emphasis will be on coordinating collection and use of information collected from Component 1 and Component 2 and on providing opportunities to expand beyond the current ICES assessment process for joint coordinated assessments. This activity will enhance local assessment capabilities through access to improved technical resources and capacity building measures. It will provide a forum for regional coordination, cooperation and advice on application of ecosystem-based management tools.
 - *Sub-activity 3(a) Evaluation and Assessment of Component 1 Information.* This activity will evaluate and assess the data collected in monitoring surveys under Component 1, Activity 2. The assessments will investigate innovative methodologies and models to optimize cost-effective strategies. The assessments will be used to formulate advice for IBSFC and HELCOM, and propose ecosystem-based management tools.
 - *Sub-activity 3(b) Economic Evaluation of Component Activities* (in coordination with Component

2). This activity will use innovative methodologies for land, coastal and open sea socioeconomic assessments to promote sustainable ecosystem-based management tools to improve the economic benefits from living marine resources. The coordinated joint assessment effort will support local authorities' decision-making capacity for integrated coastal resource management.

- **Activity 4 - Demonstration Activities.** Demonstration activities will illustrate a range of possible cost-effective measures to improve and restore the coastal ecosystem while building local capacity of coastal communities. The demonstration activities and collection and evaluation of ecosystem parameters will provide the building blocks for better understanding the Baltic Sea ecosystem process and the impacts of human activities on the eastern region of the sea. Preparation for demonstration activities will begin during Phase 1 and the activities will continue through Phases 2 and 3.
 - *Sub-activity 4(a) Salmon River Restoration.* In coordination with Component 2, sites will coincide with proposed coastal zone management activities and recommendations in the Salmon Action Plan (SAP) of the IBSFC. Segments of selected rivers will be restored to promote natural spawning and long-term economic sustainability of salmon recruitment.
 - *Sub-activity 4(b) Multiple-Marine Ecological Disturbances (MMED) Predictive Tools for Management.* Multiple ecological disturbances are particularly important in coastal areas when they affect human health and certain economic sectors, such as fishery, tourism, and recreation. Existing information and data will be applied to the HEED (Health, Ecological and Economic Dimensions of Global Change) model, a historical time series analysis, which will reconstruct critical time-series suitable for tracking changes in the health of the ecosystem and provide a cost-effective predictive management tool for ecosystem management.
 - *Sub-activity 4(c) Coordinate Joint Activities ICZM.* This activity will support and link into the WWF-Coastal Zone Management activities for the in Component 2, ICZM sub-activities.
 - *Sub-activity 4(d) Promote the Use of Baltic Herring and Sprat for Human Consumption.* This activity will initiate analysis of socioeconomic benefits which are offered by wider use of Baltic herring and sprat in human consumption.

28. **Summary of Expected Outcomes.** Component outcomes will introduce to HELCOM, IBSFC, ICES and their member countries the benefits and cost-effectiveness of a joint coordinated monitoring and assessment process for the eastern Baltic Sea. The BSRP will provide opportunities for the three international bodies and the five recipient countries to close information gaps, facilitate a better understanding of the need for a sustained regional monitoring and assessment program in the coastal and open sea waters, and allow for initial implementation of improved management of the living marine resources of the Baltic Sea. The component will strengthen the ability of participating parties to cooperate and provide linkages between science-based assessments and ecosystem-wide management practices for improving the health and long term sustainability of the ecosystem and its renewable biological resources, including fish and fisheries.

Project Component 2 - US\$4.99 million

D. PROJECT COMPONENT 2: LAND AND COASTAL MANAGEMENT ACTIVITIES

29. **Introduction.** 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 JCP highlights management of agricultural inputs and coastal areas of the Baltic as priority issues. Since 1992, a number of field-based demonstration activities, through the Swedish supported BAAP program, have been undertaken in recipient countries along the eastern and southern portion of the Baltic Sea drainage basin. These activities have been complemented by additional activities at the national level, supported by the EU, Denmark, Finland, Norway, and the United States. The environmental and economic benefits of these activities have provided a basis for preparing and implementing projects that would eventually support long-term measures to incrementally reduce non-point source agricultural pollution to the coastal and marine environment. This component is intended to be a basis for developing future national programs with environmentally responsible practices. Component 2 activities will be coordinated with the Bank and GEF supported Poland Rural Environmental Protection Project.

30. The agricultural element of the component will (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 support for small-scale environmentally responsible agricultural investments. The coastal zone management element of the component will (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 measures 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 areas.

31. **Component 2 - Management.** Management of Component 2 will be as follows:

- **Role of HELCOM/SLU and WWF.** The Swedish Agricultural University (SLU), as the overall coordinator for Component 2, will be responsible for implementing, managing and reporting on component activities. HELCOM/SLU will contract the Component Coordinator (C2C), based in SLU. The C2C will also work closely with and supervise the local LIUs. In addition, WWF will appoint a specialist who will work closely with the C2C and local counterparts and serve as coordinator for the coastal zone management activities included in the component.
- **Role of the LIU.** The LIU is the on-site implementing group in each recipient country for agriculture and environment activities. Project activities will integrate the present BAAP implementing structure and other existing organizations, such as national and local level Agricultural Advisory Services (AAS) and Farm Interest Organizations (FIO). The LIU will benefit from short-term international and local technical expertise as necessary, particularly for technical assistance and training. LIU staff will comprise experts with a national perspective and agricultural extension agents working in Project areas. The LIU will work closely with the C2C in preparing bidding documents, carrying out evaluations, and drafting contracts. Interested farmers will present expressions of interest through local extension services to the LIU. Representatives from the LIU will also participate in selected ICES and HELCOM meetings related to the Project.
- **Coastal Zone Management Activities.** The activities will be implemented by representatives of the Area Task Teams established in the demonstration areas during the HELCOM PITF MLW supported planning and management studies. These studies will serve as the basis for implementation of the

activities, which will be coordinated by local governments, community-based organizations and NGOs. In locations where Area Task Teams do not currently exist, the WWF will work with national and local authorities to facilitate their establishment.

32. **Component 2 – Activities.** Component 2 aims to significantly increase the prevalence of environmentally responsible agricultural practices among eligible farms and organizations in the targeted demonstration watersheds and to undertake a series of demonstration coastal zone management activities in priority areas linked with the activities for agriculture. The field-level activities are based on River Basin Modules including Agricultural Demonstration Watersheds and Agro-Environmental Task Areas. The Agro-Environmental Task Areas are selected based on agricultural production intensity and risk to the environment. Agricultural production in these areas has a major impact on local and/or distant water bodies and ecosystems (see Table A). Component activities will demonstrate effective mechanisms for improving recycling and retention of nutrients in transboundary waters and strengthening decision support for water management from inland agricultural areas to coastal areas. The demonstration activities for integrated coastal zone management in priority areas are linked with the activities for reduction of non-point source pollution from agriculture (see Table B).

33. **Sites for Field Level Activities.** Proposed demonstration watersheds have been selected, using criteria from the BAAP demonstration projects, in important agricultural areas with substantial effects on coastal and marine ecosystems. The demonstration field level activities are within the priority watersheds supported by the local governments, and listed below:

Table A. Component 2 – Name and Description of the Demonstration Watersheds

Country and name	Status	Catchment area (km ²)	Number of farms	Name of entering river	Flows into the Baltic Sea at:
Estonia					
Kabala	BAAP established	22.5	23	Parnu River	Gulf of Parnu
Jandera	New - BSRP	23.7	5	Selja River	Gulf of Finland
Matsalu	BAAP established	21.3	14	Ragina River	Matsalu Bay
Latvia					
Mellupite	BAAP established	9.6	18	Venta River	Baltic Proper
Berze	New - BSRP	3.6	17	Lielupe River	Gulf of Riga
Skiveri	New - BSRP	8.9	11	Daugava River	Gulf of Riga
Lithuania					
Graisupis	BAAP established	13.7	14	Nemunas River	Kursiu Lagoon
Bariunai	BAAP established	1.2	1 Large-scale	Lielupe River	Gulf of Riga
Silute	New - BSRP	6.0	1 family farm 1 polder	Nemunas River	Kursiu Lagoon
Vardas	BAAP established	7.5	20	Nemunas River	Kursiu Lagoon
Russian Federation – Kaliningrad Oblast					
Pobedinskoe	New BAAP	One field Farm yard	1 Large-scale	Nemunas River	Kursiu Lagoon/Kushsky Zaliv

Table B. Component 2 – Description of Coastal Zone Demonstration Sites

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Country/Site	Status of Management Plan	Related Watershed Demonstration Area	Area of Baltic Sea
Estonia			
Vainameri	Management Plan prepared under Haapsalu and Matsalu Bays Environment Project	Matsalu	Matsalu Bay
Kihnu	Management Plan to be prepared under Project	Kabala	Gulf of Parnu
Latvia			
Engure/ Kemeru	Management Plan prepared under HELCOM PITF MLF Phase IA and IB	Berze	Gulf of Riga
Lithuania and Russian Federation			
Nemunas Delta/ Kursiu Lagoon	Management Plan prepared under Klaipeda Environment Project	Silute	Kursiu Lagoon
Nemunas Delta/ Kursiu Lagoon	Management Plan prepared under HELCOM PITF MLW Phase IA and IB	Pobedinskoe	Kursiu Lagoon
Russian Federation and Poland			
Vistula Lagoon/ Kaliningrad Lagoon	Management Plan prepared under HELCOM PITF MLW	Elblag (included in Rural Environmental Protection Project)	Vistula Lagoon/ Kaliningrad Lagoon

- **Activity 1 - Agricultural Interventions.** This activity will expand upon BAAP supported investments in environmentally responsible practices and target the farming community, agricultural advisory organizations and local authorities, using national Codes of Good Agricultural Practices as the guiding tool. The Codes are one of the major environmental commitments undertaken by the countries in their accession to the environmentally responsible agricultural practices (agro-environmental) schemes of the EU. This activity seeks to significantly increase environmental awareness and use of environmentally responsible practices in agriculture and demonstrate effective mechanisms for improving recycling and retention of nutrients.
 - *Sub-activity 1(a) Local Agri-Environmental Capacity Building.* Farmers in the watersheds will be invited to participate in education and training activities to improve sustainable farm management. Training activities will provide farmers with potential investment support through GEF grants, combined with credits through cooperation with NEFCO. This activity will promote agricultural training programs, and train farmers in sustainable practices. Critical to this effort is a communication and public relations outreach program.
 - *Sub-activity 1(b) Demonstrating Cost-Effective Nutrient Recycling and Retention Technologies.* A select number of on-farm, agro-environmental demonstration practices will be established, including construction and restoration of wetlands for nutrient retention, construction of a naturally based purification systems, and manure retention ponds.
 - *Sub-activity 1(c) Agri-Environmental Credit Schemes (AgECS).* Agro-environmental practices will be promoted, potential on-farm environmental investments will be identified and farmer eligibility for grants and/or loans will be assessed, and management plans prepared. Eligible on-farm investments will be permanently installed for nutrient re-circulation; such investments include manure pads and slurry storage, equipment for manure and urine spreading and technology for seeding and soil preparation. The GEF grant and/or NEFCO credit will be

complemented by in-kind contributions in materials and labor by the farmer or agricultural company. The size of the GEF supported grant is limited to a maximum of US\$30,000 equivalent. The credit line by NEFCO, parallel to the BSRP, will support environmental investments up to US\$200,000 equivalent. With the assistance of the LIU, this effort will combine environmental concerns and business development into a farm management plan that will form the basis for technical support, training and small-scale on-farm investments. The investments in environmentally responsible practices will also assist in upgrading the responsibilities of the extension services and authorities on a nationwide scale to meet requirements of the EU Nitrate Directive.

- **Activity 2 - Monitoring and Assessment of Non-Point Source Pollution.** This activity will investigate nutrient loads from agriculture and aims to fill gaps in national monitoring programs and assist in meeting the country's commitment to EU and Helsinki Convention obligations. The activity is essential for preparation of joint ecosystem-based assessments of land-based and marine activities. It will provide sustainable land and coastal management tools to be incorporated in regional management of the ecosystem. It will establish an in-stream network to monitor and assess outputs from agricultural watersheds and assess innovative methodologies for non-point source pollution retention. Design of the monitoring system will be coordinated with the Rural Environmental Protection Project in Poland to ensure comparability of data sets, quality assurance measures and planned applications for management measures. Efforts will be linked with monitoring and assessment activities in Component 1.
 - *Sub-activity 2(a) Catchment Measurement Programs.* The catchment measurement programs will measure loads of nutrients to surface waters from representative agricultural areas, and leaching of nutrients to shallow groundwater in representative agricultural areas. The catchment measurement program will provide background data on nutrient losses from representative agricultural areas, in order to support national authorities in their development of sustainable agricultural production systems and to meet the data requirement for reporting to various regional and international organizations, including the EU, HELCOM and OECD.
 - *Sub-activity 2(b) Effects of Specific Demonstration Activities.* Specific demonstration activities will show governments and farmers the efficiency of various nutrient reduction measures. Efforts will include monitoring of plot demonstration activities concerning crop rotation systems and optimal fertilizer use, and monitoring of natural and constructed wetlands and other hydrologically manipulated systems that retain nutrient runoff from non-point sources.
 - *Sub-activity 2(c) Agricultural Hot-Spots and Contamination of Drinking Water in Shallow Farm Wells.* This sub-activity will assess, at selected sites, the extent and causes of contamination of drinking water in farm wells. This will include monitoring contamination of drinking water in farm wells and contamination of surface and groundwater at local "hot spots" to determine the trends in the area.
 - *Sub-activity 2(d) Modeling of Nutrient Loads in the Berze-Lielupe Basin.* A comprehensive series of actions for training personnel and upgrading modeling capacity would be supported under this sub-activity targeted in the Berze-Lielupe demonstration watershed. These are considered to be an important contribution to regional capacity building in management of agricultural pollution. The actions comprise training courses, transfer of knowledge and methodology, collection of data, modeling, and establishment of a multi-parameter data set to validate and test the modeling. The modeling approach will be linked to ongoing activities at SLU and SMHI in Sweden, and

will be carried out under supervision from SLU.

- **Activity 3 - Land-Based Coastal Zone Management.** The integrated coastal zone management (ICZM) activities will focus on practical measures to assist local communities in improving their management of coastal zones. Activities will include involvement of local communities, NGOs, local decision-makers and businesses. WWF has acted as lead party responsible for elaborating ICZM plans for the six target areas under the activities of the HELCOM Working Group on the Management of Coastal Lagoons and Wetlands (HELCOM MLW). These management plans are the framework for implementing this activity, and are the basis for the sub-activities. The existing MLW networks are composed of local authorities, local users of natural resources (farmers, fishermen, etc.) as well as national experts. This activity will be coordinated with Component 1, to establish administrative structures for coastal zone management in the selected areas. The sub-activities will contribute to balanced and sustainable development of the area by means of cross-sector integration. They will include environmentally based targeted efforts to build local capacity of the fishing communities and support small-scale investments. Such efforts encompass investigating feasible opportunities for recreational tourism, constructing fish bypasses on rivers, and restoring spawning habitats. A social assessment process will be used to provide guidance to optimize local community involvement and benefits so that local communities use natural and economic resources more efficiently, improve their livelihood, and conserve biodiversity. An outreach program will expand these activities to other coastal communities. Some preliminary activities will commence during Phase 1, and continue through Phases 2 and 3.
 - *Sub-activity 3(a): ICZM Vainameri/Matsalu and Parnu Bay/Kihnu Island (Sites 1 and 2).* In coordination with Component 1 and through local capacity building and training, this will build and/or restore three small wastewater treatment systems using ecological techniques on the island of Kihnu, restore Lake Prastevik-Voormsi and promote small-scale tourism investments. A demonstration project and investments for maintenance of semi-natural grassland will be initiated.
 - *Sub-activity 3(b) ICZM Engure/Kemeri(Lielupe-Gulf of Riga (Site 3).* The activity will establish a local small business incubator in Mersrags, develop and distribute a bi-annual local newsletter, and train fifteen local guides. In coordination with Component 1, a socioeconomic benefits program for local farmers and fishermen will be developed and implemented.
 - *Sub activity 3(c) ICZM Kursiu Lagoon/ Nemunas Delta (Site 4).* The activity will support development of recreational facilities, wetland restoration and preparation of meadow management plans, which will review division of responsibilities for nature management as they pertain to transboundary concerns. A cross-border protected area is being established to ensure protected status for flooded forest on the Russian side of the border, for which educational activities will include workshops at the local and national level, using the Lithuanian Visitor Center Facilities.
 - *Sub-activity 3(d) ICZM Vistula Lagoon/Kaliningrad Lagoon (Site 5).* This will include measures to help restore the environmental balance of the Vistula Lagoon/Kaliningrad Lagoon and adjacent land areas. Activities will focus on feasible low cost efforts to strengthen stakeholder involvement and optimize use of resources to meet the needs of the population in accordance with principles of sustainable development. To this end, an indicator-based system for ICZM evaluation will be developed. A pre-feasibility study of selected small catchment areas will identify cost-effective measures to ensure clean up of polluted waters discharging to the Vistula

Lagoon, and a pilot river tributary will be restored.

- **Activity 4 - Baltic Sea Regional Agri-Environment Assessment Network (RAN).**

Agro-environmental and rural policies are under development in the region, and this activity will link local field-level activities of the BSRP with national authorities and decision-makers. These activities will commence during Phase 2, and through a series of workshops combine field-level activities under the Project with development of agro-environment and rural policies. To increase the exchange of experience between countries and individuals and achieve added value, a Regional Network will communicate progress and results through an open and participatory process. Regional Network activities will seek to increase communication, thus increasing Project sustainability. Several initiatives in this direction have been taken in the Baltic Sea region and this activity will incrementally support these initiatives, improving coordination and sustainability on a regional basis.

34. **Summary of Expected Outcomes.** The main outcomes of Component 2 will lie in country institutional capacity to control and manage non-point source pollution from agriculture, improve coastal zone management practices at the local level, and reduce gaps in terms of commitments to HELCOM and the EU. The outcomes will also address the farming community's need to improve socioeconomic standards and provide tools that contribute to farm sustainability. Project implementation will achieve sector-oriented outcomes related to management of non-point source pollution on the farm, national and regional level, and management of the coastal zone in the demonstration areas. At Project completion, countries will have upgraded their monitoring and demonstration capacity for catchment loads, adopted more sustainable agricultural practices and improved their capacity to manage the coastal zone.

Project Component 3 - US\$ 0.15 million

E. PROJECT COMPONENT 3: INSTITUTIONAL STRENGTHENING AND REGIONAL CAPACITY BUILDING

35. **Introduction.** Important for the Project's success is strengthened local and regional decision-making and management capacity, both to improve management and to better understand and ameliorate socioeconomic conditions in the eastern Baltic. The aim of Component 3 is to facilitate strengthening of regional, national and local institutions through capacity building efforts to enable these institutions to coordinate and apply a comprehensive ecosystem-based management strategy to the Baltic Sea.

36. **Component 3 - Management.** This component will be managed and implemented by HELCOM in cooperation with IBSFC and ICES. BSSG review and dissemination of information and management tools developed under the Project will be an element of this component. Phase 1 will support limited activities under this component which will be significantly expanded during Phases 2 and 3.

37. **Component 3 - Activities.** During Phase 1, will support the initial work under Activity 1 and detailed planning of Activity 2. The scope of activities under Component 3 will be expanded during Phases 2 and 3 of the Project.

- **Activity 1 - Regional Capacity Building.** This activity, through institutional capacity building efforts and participatory meetings, will address regional administrative, socioeconomic, and technical matters as they pertain to management of Baltic Sea resources, and will enable recipient countries to contribute to strengthening local and regional institutions. This will also include a special program to support training activities for community-based groups and local NGOs. A regional public outreach program will increase awareness of the Project's benefits through multi-media information, including

pamphlets, information guides, and local radio and TV broadcasts. This activity will commence under the project (Phase 1) and continue through the follow-up projects (Phases 2 and 3).

- o *Sub activity 1(a) Regional Coordination.* This activity will prepare a coordination strategy and informal network and focus on facilitating regional coordination and cooperation between HELCOM, IBSFC, and ICES. In addition, efforts will be made to coordinate with national officials from the recipient countries, delegates of the EU and regional and local stakeholders.
- o *Sub activity 1(b) Baltic Sea Steering Group.* The BSSG will be established and operationalized to facilitate strengthening of the regional decision-making capacity. This activity will support coordination and cooperation among HELCOM, IBSFC and ICES and the regional stakeholders to achieve a more integrated approach to ecosystem-based management.
- o *Sub-activity 1(c) Regional Public Information and Outreach.* The regional public information and outreach program, in cooperation with locally based public awareness and outreach programs, will educate and inform the public, stakeholders, and government officials on Project progress and outcomes.

- **Activity 2 - Regional Socioeconomic Assessment.**

- o *Sub-activity 2(a) Improved Valuation of Ecosystem Goods and Services.* The assessment process will include evaluation of the socioeconomic implications of reduced eutrophication on ecosystem resources. The value of ecosystem goods and services will be determined from outputs from the scientific assessment, and various modeling efforts. Assessment outcomes and suggestions will be synthesized in a practical and realistic context so they can be understood by individual fishermen and farmers. The information will be used as a tool to inform and educate the range of stakeholders on ecosystem values. The activity will link with similar socioeconomic and scientific assessments in the region, to better understand the overall social and economic value of Baltic Sea resources.

38. **Summary of Expected Outcomes.** The anticipated outcome from this component is increased awareness among all stakeholders of the value of the Baltic Sea ecosystem goods and services and the importance of appropriate management tools for ecosystem-based management at the regional, national and local level.

Project Component 4 - US\$1.36 million

F. PROJECT COMPONENT 4: PROJECT MANAGEMENT

39. **Introduction.** The objective of Component 4 is to successfully implement the BSRP to achieve the stated development objective. Project management includes administrative, management, and implementation responsibilities. Project management structure and responsibilities are detailed in the PIP/PPP.

40. **Component 4 - Management.** This component will be managed by HELCOM in cooperation with IBSFC and ICES.

41. **Component 4 - Activities.**

- **Activity 1 - Project Management.** Component 4 will provide support for Project management by

HELCOM and the cooperating parties responsible for implementation of the various Components and Activities. This includes support for the PIT at HELCOM and the various administrative and management services required for Project reporting, procurement, disbursement, financial management, and operationalizing the FMR. HELCOM will retain the services of a qualified consultants, with significant experience in Bank procedures, to assist with procurement, disbursement and financial management actions, and Project Assistant. The procurement consultant will undertake preparation and review of bid documents for works, goods and services; facilitate evaluations; and support HELCOM in contract negotiations. The disbursement and financial management consultant will assist the HELCOM's Administrative Officer in managing the Special Account, executing the payments to consultants, contractors and suppliers, and will run the BSRP's Financial Monitoring Reporting system.

42. **Summary of Expected Outcomes.** The anticipated outcome from this component is the development of an effective management structure that will be able to successfully support all stages of Project implementation.

43. **Reporting and Auditing.** The Project will comply with the "Guidelines for Financial Reporting and Auditing of Projects Financed by the World Bank." The Bank together with HELCOM has agreed upon reporting requirements for Financial Monitoring Reports (FMR). Project progress will be reported through annual, semi-annual and quarterly Project progress reports. An Implementation Completion Report (ICR) will be prepared within six months of Project completion. HELCOM's financial management capacity assessment and an up front agreement on accounting and auditing procedures that are acceptable to the Bank were reached in May 2000. These were reviewed once again during the appraisal mission. This agreement includes a time-bound action plan to address financial management issues and a reporting system that fully complies with the updated financial management requirements. The HELCOM as an entity will be audited by Finnish State Auditor's office, based on HELCOM's Headquarter's Agreement with Government of Finland. The Project and Special Account will be audited by competitively selected auditing firm with qualifications acceptable to Bank and in accordance with terms of reference acceptable to Bank. The PIP/PPP will detail the relevant Bank policies and requirements.

Table C Component Activities Sub-activities and Tasks
Component 1 - Large Marine Ecosystem Activities
Activity 1 Strengthening Institutional and Technical Capacity
<i>Sub-activity 1(a) Strengthened Institutional Capacity of Coordination Centers and Lead Laboratories</i>
<ul style="list-style-type: none"> ● Task 1: Fisheries Coordination Center, Latvian Fisheries Research Institute Riga, Latvia ● Task 2: Productivity Coordination Center, Institute of Aquatic Ecology, Riga, Latvia ● Task 3: Ecosystem Health Parameters Coordination Center, Fisheries Research Institute, Gdynia, Poland ● Task 4: GIS-Data Coordination Center, Lithuania Integrated Coastal Zone Management Information Center, Vilnius, Lithuania ● Task 5: Socio-Economic Coordination Center, Estonia Marine Institute, Tallinn and Tartu University, Tartu, Estonia
<i>Sub-activity 1(b) Regional Training and Workshops to Strengthen Technical Capacity</i>
<ul style="list-style-type: none"> ● Task 1: Training and Transfer of Know-How for BSRP-Key Persons and Team Leaders ● Task 2: Seminar Series: Integrated Coastal Zone Management –Regional Efforts in the Baltic Sea ● Task 3: Participate in ICES Working Group Activities
<i>Sub-activity 1(c) Coordinate Coastal-Near Shore Activities</i>
<ul style="list-style-type: none"> ● Task 1: Conduct Introductory workshops ● Task 2: Prepare of coastal monitoring stations ● Task 3: Organize and conduct technical training and workshops

• Task 4: Provide International Technical Assistance for Near Shore Activities
• Task 5: Coordinate Local and Regional Information and Institutions
Sub-activity 1(d) Coordinate Open Sea Activities
• Task 1: Coordinate Joint Abundance Surveys
• Task 2: Upgrade Landing Statistics Knowledge
• Task 3: Promote Awareness among Commercial Fisherman on Logbook Data Reporting
• Task 4: Coordinate and Integrate Fish and Productivity Monitoring Assessment
• Task 5: Coordinate Observer Program for Sampling Discards and Non-target By-Catches
Activity 2 - Operationalize Monitoring and Assessment Surveys in the Eastern Baltic Sea
<i>Sub-activity 2(a) Conduct Coastal Near-shore Monitoring Surveys</i>
• Task 1: Procure monitoring equipment
• Task 2: Contract cutter and trawl vessels for the coastal monitoring
• Task 3: Engage the coastal fishermen in monitoring activities
• Task 4: Conduct Integrated Monitoring and Assessment Surveys
<i>Sub-activity 2(b) Conduct Joint Integrated Open Sea Surveys</i>
• Task 1: Procure necessary monitoring equipment
• Task 2: Joint Baltic International Bottom Trawl Surveys (BITS)
• Task 3: Joint Baltic International Acoustic Surveys (BIAS)
• Task 4: Progress from single species stock assessments to multi-species assessments
<i>Sub-activity 2(c) Improve use of Ships of Opportunity (SOOP)</i>
• Task 1: Extend the Present Spatial and Temporal Sampling of SOOP Vessels
• Task 2: Prepare for Establishment of a Rapid Information Exchange Network to Provide Comprehensive Information on Plankton and the Environment:
• Task 3: Develop, Update and Implement Operational Activities to Ensure Appropriate Ecosystem Sampling and Timely Output of Assessment Results
• Task 4: Report SOOP Results
<i>Sub-activity 2(d) Collect Data From Commercial Fishing Vessels</i>
• Task 1 Collect landing information
• Task 2: Improve collection of logbook data
• Task 3: Monitor ecosystem effects on non-target species
• Task 4: Collect fish landings stomach data
Activity 3 Cooperative Local and Regional Evaluations and Assessments
<i>Sub-activity 3(a) Evaluate and Assess Component 1 Information</i>
• Task 1: Compile and process data
• Task 2: Conduct integrated assessment
• Task 3: Review and apply fish stock assessment models
• Task 4: Build international fisheries databases
• Task 5: Provide ecosystem-based management recommendations and Tools
<i>Sub-activity 3(c) Economic Evaluation of Component 1 Activities</i>
Activity 4 Demonstration Activities
<i>Sub-activity 4(a) Salmon River Restoration and Species Introduction</i>
• Task 1: Prepare Salmon River restoration inventory
• Task 2: Conduct Hydrologic and Ecological Evaluations of the Three Rivers
• Task 3: Prepare Local Salmon River Restoration Action Plan
<i>Sub-activity 4(c) Multiple-Marine Ecological Disturbances (MMED)</i>
• Task 1: Organize the Principle Components of the Baltic MMED System
• Task 2: Arrange a First Regional Workshop
• Task 3 Arrange a Second Regional Workshop
<i>Sub-activity 4(d) Joint Coastal Zone Management</i>
• Task 1: Coordinate and Evaluate Results of the Joint C1/C2 Coastal Zone Management Activities
<i>Sub-activity 4(e) Promote Use of Baltic Herring and Sprat for Human Consumption</i>
• Task 1: Fish Technology Workshop
Component 2 - Land and Coastal Management Activities
Activity 1 Agricultural Interventions
<i>Sub-activity 1(a) Local Agri-environmental capacity building</i>

• Task 1: Marketing of the training programs and Outreach Activities
• Task 2: Evaluate Training and Outreach Program
<i>Sub-activity 1(b) Demonstrating cost-effective nutrient recycling and retention technologies</i>
• Task 1: Construct on-Farm Installations to Demonstrate Environment Friendly Agricultural Practices
• Task 2: Restore wetlands
• Task 3: Construct Naturally Based Purification System for Nutrient Retention
<i>Sub-activity 1(c) Agri-Environmental Credit Scheme (AgECS)</i>
• Task 1: Establish an AAS Credit Facilitator
• Task 2: Complete Farm Environmental/Management Plans (Farm E/MP)
• Task 3: Screening Farmers and Investment Eligibility
• Task 4: Apply and Approve the Grant and Loan
• Task 5: Prepare Project Description
• Task 6: Disburse Grant or Loan
• Task 7: Quality Assurance of Manure Storage Constructions
• Task 8: Procure the Works for Construction of the Manure Storage and Equipment
• Task 9: Monitor the Progress of Investment Projects
• Task 10: Strategy for Sharing Experience from the AgECS
• Task 11: International Technical Assistance for Complementary Training

Activity 2 Monitoring and Assessment of Non-Point Source Pollution

<i>Sub-activity 2(a) Catchment Monitoring Programs</i>
• Task 1: Estonia: Contamination of Private Farm wells
• Task 2: Latvia: Contamination of Private Farm wells
• Task 3: Lithuania: Contamination of Private Farm wells
• Task 4: Monitoring of Pesticide Residues in Water
<i>Sub-activity 2(b) Effects of Specific Demonstration Activities</i>
• Task 1 Latvia: Monitoring the Effects of demonstration Activities
<i>Sub-Activity 2(c) Monitoring of Agricultural Hot-Spots and Contamination of Drinking Water in Farm Wells</i>
• Task 1: Estonia: Contamination of Drinking Water Private Farm wells
• Task 2: Latvia: Contamination of Drinking Water Private Farm wells
• Task 3: Lithuania: Contamination of Drinking Water Private Farm wells
<i>Sub-activity 2(d) Modeling of Nutrient Loads in Berze Lielupe Basin, the Gulf of Riga and Selected National Watersheds</i>
• Task 1: Establish a Model Expert Team (MET)
• Task 2: Select Watershed-Coastal Model
• Task 3: Apply and Assess Watershed Model
Activity 3 Land-Based Coastal Zone Management
<i>Sub-activity 3(a): ICZM Vainameri/Matsalu and Parnu Bay/Kihnu Island ICZM Management (Sites 1 and 2)</i>
• Task 1: Construct/Restore 3 WWTPs using ecological techniques at the island of Kihnu
• Task 2: Restoration of Lake Prastevik-Voormsi and small-scale tourism investments
• Task 3: Model Project and Investments for maintenance of Semi-Natural Grassland
• Task 3: Capacity building and training
• Task 4: Linkages with Component 1
<i>Sub-activity 3(b) ICZM Engure/ Kemeru ICZM Management (Site 3)</i>
• Task 1: Establishment of local small business incubator in Mersrags and installation of office equipment
• Task 2: Linkages with Component 1
<i>Sub activity 3(c) Nemunas Delta and Kursiu Lagoon/Kurshsky Zaliv ICZM Management (Site 4)</i>
• Task 1: Strengthen Local Stakeholders Involvement
• Task 2: Support for recreational facilities
• Task 3: Wetland restoration / preparation/meadow management
• Task 4: Ensure protection status for flooded forest on Russian side
• Task 5: Education activities, workshops at local and national level using the Visitor Center Facilities
<i>Sub-activity 3(d) ICZM Vistula Lagoon (Site 5)</i>
• Task 1: Strengthening of the stakeholders involvement

• Task 2: Public Awareness and Environmental Education (PA&EE)
• Task 3: Development of an indicator-based system for ICZM-process evaluation
• Task 4: Pilot restoration activities
• Task 5: Pre-feasibility study of selected small catchment area
Activity 4 Baltic Sea Agri-Environmental Assessment Network
• Task 1: Define Critical Issues and Tasks for the C2-Regional Assessment Network (RAN)
• Task 2: Coordinate Assessment and Advice with Component 1 and International Cooperating Bodies
• Task 3: <i>Establish a Regional Database for Monitoring and Modeling</i>
Component 3-Institutional Strengthening and Regional Capacity Building
Activity 1 Regional Capacity Building
<i>Sub-activity 1(a) Regional Coordination</i>
• Task 1: Facilitate coordination between HELCOM, IBSFC and ICES
• Task 2: Engage National, Regional and Intergovernmental Representatives
• Task 3: Engage Stakeholders
• Task 4: Conduct Launch Workshop
<i>Sub-activity 1(b) Baltic Sea Steering Group</i>
• Task 1: Review and approval of Baltic Sea Steering Group By-laws
• Task 2: Conduct meetings as set forth in the Steering Group Bylaws
• Task 3: Execute Responsibilities as identified in the Steering Group Bylaws
<i>Sub-activity 1(c) Regional Public Information and Outreach</i>
• Task 1: Develop a regional public outreach program strategy
• Task 2: Approve Public Awareness and Outreach Program Plan by Baltic Sea Steering Group
• Task 3: Implement the Regional Public Awareness and Outreach Program
Activity 2 Regional Socioeconomic Assessments
<i>Sub-activity 2 (a) Improved Methodologies and Management Mechanisms for Assessing Ecosystem Goods and Services</i>
• Task 1: Research Principal Use of Ecosystem Resources
• Task 2: Conduct First Workshop to Assess Level of LME related Activities
• Task 3: Conduct Second Workshop to Assess Socio-economic Importance of the Ecosystem Resources
• Task 4: Submit Recommendations to BSSG
Component 4 - Project Management
Activity 1 Project Management
<i>Sub-activity 1(a) Project Management</i>
• Task 1: Manage and Administer Component Implementation
• Task 2: Auditing and Reporting
<i>Sub-activity 1(b) Social Assessment</i>
• Task 1 Social Assessment

1 K. Sherman and A. Duda, An ecosystem approach to global assessment and management of coastal waters, Marine Ecology Series Vol. 190: 271-287, December 1999.

Annex 3: Estimated Project Costs
EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

Project Cost By Component	Local US \$million	Foreign US \$million	Total US \$million
Large Marine Ecosystem Management Activities	1.09	4.01	5.10
Land and Coastal Management Activities	1.38	3.09	4.47
Institutional Strengthening and Regional Capacity Building	0.07	0.08	0.15
Project Management	0.16	1.04	1.20
Total Baseline Cost	2.70	8.22	10.92
Physical Contingencies	0.20	0.40	0.60
Price Contingencies	0.20	0.40	0.60
Total Project Costs¹	3.10	9.02	12.12
Total Financing Required	3.10	9.02	12.12

Project Cost By Category	Local US \$million	Foreign US \$million	Total US \$million
Goods	0.58	4.08	4.66
Works	0.44	0.70	1.14
Services	1.00	3.72	4.72
Training	0.20	0.42	0.62
Operational Costs	0.88	0.10	0.98
Total Project Costs¹	3.10	9.02	12.12
Total Financing Required	3.10	9.02	12.12

¹ Identifiable taxes and duties are 0 (US\$m) and the total project cost, net of taxes, is 12.12 (US\$m). Therefore, the project cost sharing ratio is 45.4% of total project cost net of taxes.

Annex 4

Incremental Cost Analysis

EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

Overview

1. The project development objective is to create some preconditions for application of the ecosystem approach in managing the Baltic Sea Large Marine Ecosystem in order to increase the biological productivity of the Baltic Sea. The global environmental objective of the project is 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 by integrating sound land and water resource management tools. The GEF Alternative, in the first three year phase of the overarching action program in the Baltic Sea region, intends to achieve these objectives at a total cost of USD 5.5 million above the Baseline. The proposed GEF Alternative should be viewed as complementary to existing environmental conservation activities of global significance in the Baltic Sea region.

Context and Broad Development Objective

2. The Baltic Sea ecosystem is a semi-enclosed water body connected with the North Sea by narrow and shallow sounds that limit water exchange. Natural fluctuations are characteristic of this ecosystem: the water is largely regulated by the sporadic inflows of saline and oxygen-rich North Sea water and intermediate stagnation periods. Contaminants and nutrients enter the Baltic Sea via river run-off, through atmospheric deposition; and from human activities at sea. It is estimated that renewal of the water of the Baltic Sea takes about 25-30 years. Although the Baltic Sea ecosystem provides goods and services to 80 million people inhabiting its shores and drainage basin, its full social and economic benefits are not currently being realized.

3. The project area encompasses the Baltic Sea watershed, and coastal and marine waters. The land based and coastal activities are concentrated in targeted demonstration sites in Lithuania, Latvia, Estonia and Russian Federation (Kaliningrad Oblast and Leningrad Oblast). The land-based demonstration sites build upon the Baltic Sea Agricultural Run-off Program (BAAP) and target geographical areas vulnerable to pollution from nitrates; coastal sites have been identified on the basis of earlier work by WWF; and the marine sites correspond to and supplement current HELCOM/ICES monitoring network.

4. Despite previous regional and national level efforts to reduce the pollution levels and regulate fisheries, the Baltic Sea ecosystem is under serious threat. The major transboundary threats to Baltic Sea ecosystem can be summarized as follows:

- Degradation of water quality from non-point sources of pollution from agricultural sources;
- Degradation of the coastal zone from poor planning and land use practices;
- Reduced productivity from eutrophication and harmful algal blooms in coastal and marine waters;
- Unsustainable use of fisheries; and
- Diseases in marine life associated with pollution and emerging problems with introduced “alien” species.

5. In response to this situation, the countries in the drainage basin initiated a Joint Comprehensive Environmental Action Program for the Baltic Sea (JCP). The GEF Alternative will address all the threats above by assisting the recipient countries in implementing elements of the JCP in order to protect

globally and regionally important environmental and biodiversity resources.

6. Despite the current economic hardships, the Governments of the recipient countries have remained committed to protection of the Baltic Sea ecosystem and improvement in quality of life for the communities who inhabit its shores. The immediate development goals of the recipient countries are to stimulate economic growth in rural areas through improved agricultural productivity and to improve living standards of the rural population. Other priorities include institutional strengthening and sub-national government capacity building; the EU accession process and moving towards meeting the requirements of EU Environmental directives. Improved management of environmental and natural resources in the pilot project areas, which will be realized through this project, will contribute towards achieving the recipient countries' economic development and conservation goals as identified in their CAS documents, and in various national and international environmental strategy and action programs.

Baseline Scenario

7. The recipient countries are undertaking a variety of domestically funded environmental management programs and activities in the Baltic Sea region. These activities include reduction of pollution discharges from point and non-point sources, coastal zone management, conservation of natural habitats of global and regional importance; and more sustainable management of natural resources. The approximate cost of domestic funding for these activities in the recipient countries during the project period is expected to be in the range of USD 6.0 million.

8. A number of relevant environmental management and biodiversity conservation activities in the recipient countries are being financed by various international development agencies and donors. Nordic bilateral grant assistance remains the main source of external aid to the environment sector in the Baltic Countries and Poland. In addition to increased Nordic assistance to the Western Oblasts of the Russian Federation, the EU TACIS program remains an active player. Activities funded by Sida support implementation of the Baltic Agricultural Run-off Action program in recipient countries.

9. There are a number of ongoing World Bank funded projects in the project region that promote environmental management and sustainable agricultural practices through investments into productive infrastructure, capacity building, and productivity improvement. The Estonia Agricultural Development Project has provided USD 10.0 million for improved agricultural management practices and conservation of wetland habitats. Latvia Rural Development Project has provided a total of USD 8.6 million in investments to stimulate economic growth in depressed rural areas. The Daugavpils Water and Wastewater Management component of the Latvia Municipal Development Project aims to reduce pollution discharges into the Baltic Sea drainage basin at the cost of USD 12.0 million. The latter is also the main goal of the Siauliai and Klaipeda Environmental Management Projects in Lithuania. The total cost of the water quality improvement and coastal zone management investments of these projects is USD 54.0 million. The Poland Rural Environmental Protection and Rural Development Projects support development of environmentally responsible agricultural practices and improve productivity of farm operations at the cost of USD 3.3 million. Finally, the proposed project would provide funding for various open sea ecosystem, coastal zone management and non-point source pollution control activities which generate direct domestic benefits. The sources of funding that contribute to the Baseline cost include the European Union, Denmark, Finland, Sweden, United States, NEFCO and WWF.

10. The full Baseline Scenario is estimated to cost USD 6.6 million, and consists of: (a) large marine ecosystem management activities - USD 3.02 million; (b) land and coastal management activities - USD 2.49 million; (c) institutional strengthening and regional capacity building activities - USD 0.15 million; and (d) project management - USD 0.96 million. It is based on a realistic assessment of available

resources and is consistent with the existing institutional capacity and national development goals.

11. The ecosystem conservation outcome of the Baseline Scenario is expected to be the following:

- The recipient countries will continue to work toward meeting their obligations to the Helsinki Convention at the national level. While each country has the basic capacity to meet these obligations, the broader regional environmental goals will be difficult to achieve.
- The recipient countries would continue to manage common resources in a limited capacity, without standardized procedures for collecting data, monitoring and assessments. Lack of institutional cooperation at the regional level would limit effective addressing of critical transboundary issues.
- Lack of coordination among Baltic Sea countries would limit the efforts to stop over fishing, which leads to reduced biodiversity and loss of economically important fish stock and genetic pool.
- There would be an increasing impact from agricultural non-point source pollution as the agriculture sector has started to show signs of recovery, contributing to excessive loads of nutrients and widespread eutrophication in coastal waters (which leads to continuing deterioration of the open sea ecosystem).
- There would be continued degradation of the sensitive coastal wetlands and habitats due to poor coastal zone planning and management practices at the national and local level.

As a consequence of the current course of action, regarded as the Baseline Scenario, existing government resources and international financing efforts will not ensure adequate protection of the Baltic Sea shared open sea and coastal ecosystems and its associated biodiversity of global and regional significance.

Global Environmental Objective

12. The Project's global environmental objective is to create some preconditions for application of the ecosystem approach in managing the Baltic Sea Large Marine Ecosystem in order to increase the biological productivity of the Baltic Sea. Project activities support implementation of the Baltic Sea Joint Comprehensive Environmental Action Program (JCP), developed by the Helsinki Commission (1992, 1998).

GEF Alternative

13. The GEF Alternative would supplement the Baseline Scenario by establishing a coordinated regional structure for ecosystem-based management of living marine resources, and funding activities at geographically targeted sites to address priority transboundary issues, reduce non-point source pollution and improve coastal zone management by linking activities undertaken on land, in the coastal zone and in the open sea environment in a comprehensive manner. The GEF Alternative would also provide an opportunity for the recipient countries to strengthen management and technical capacity necessary for managing the common resources of the Baltic Sea ecosystem. Finally, the GEF Alternative would accelerate dissemination of innovative field-tested technologies and approaches and link them with an information outreach program. The results of the project could be replicated, with adjustment for local conditions, in other international basins such as the Black Sea and Danube River Basin. The cost of implementing the GEF Alternative over the 3-year project period is estimated to be USD 5.5 million. The principal components of the GEF Alternative are:

- *Introduction of ecosystem-based assessments and management for the Baltic Sea Large Marine Ecosystem coastal and open-sea resources.* This would include coordination and integration of the

regional monitoring and assessment capacity, which would improve management and sustain fishery yields and biological productivity of the Baltic Sea region. In the long term, this would improve both the marine ecosystem and the economic benefits and standard of living of the fishing and coastal communities. USD 5.62 million (GEF financing – USD 2.6 million);

- *More sustainable management of land-based agricultural inputs to coastal and open sea water and improving coastal zone management. Promoting environmental awareness related to agriculture among farmers and communities.* Financial support will be provided for implementation of environmentally responsible farm management practices. In the long term, this would improve the economic welfare and standard of living within the farming community while reducing non-point source agricultural impacts. USD 4.99 million (GEF financing – USD 2.5 million);
- *Strengthening of local and regional capacity building and institutional development, which is critical for successful implementation and replication of the above activities.* Regional capacity building will focus on regional administrative, socioeconomic, and technical matters as they pertain to management of Baltic Sea resources. Support will be provided for improved regional level coordination and cooperation between HELCOM, IBSFC, ICES and regional stakeholders. Training for community-based groups and local NGOs and regional public outreach program. USD 0.15 million (GEF financing – USD 0.0 million).
- *Support for local and regional Project management.* USD 1.36 million (GEF financing – USD 0.4 million).

Incremental Costs

14. The project's incremental cost is USD 5.5 million, the difference between the Baseline Scenario (USD 6.62 million) and the GEF Alternative (USD 12.12 million). Of this, the GEF is requested to fund USD 5.5 million. The details of the Baseline and the GEF Alternative are presented in the attached Incremental Cost Matrix.

Incremental Cost Matrix*

Component	Cost Category	Cost USD	Local Benefit	Global Benefit
Component 1 Large Marine Ecosystem Management Activities				
Strengthening Institutional and Technical Capacity	Baseline	0.8	Increased technical level of national monitoring institutions, resulting in improved monitoring and assessment capacity for Baltic Marine LME.	
	With GEF Alternative	1.4		Scientific institutions conducting monitoring are using the same equipment and procedures while monitoring the Baltic Sea, which increases reliability and compatibility of data.
	Incremental	0.6		
Operationalize Monitoring and Assessment Surveys in Eastern Baltic Sea	Baseline	1.6	Increased local capacity to assess and evaluate ecosystem interactions and conduct multi-species assessment.	
	With GEF Alternative	3.0		Increased use of unified modeling techniques prompts better assessments of the state of the Baltic Sea Large Marine Ecosystem, as well as forecasts of fish resource development.
	Incremental	1.4		
Cooperative Local and Regional Evaluations and Assessments	Baseline	0.6	As a result of better scientific advice, integrated and holistic approach introduced to regional decision making for ecosystem-based management.	
	With GEF Alternative	1.2		Improved capacity of the three international institutions (HELCOM, IBSFC and ICES) to manage critical habitats for biodiversity enhancement of the LME.
	Incremental	0.6		
Component 2 Land and Coastal Management Activities				
Agricultural interventions	Baseline	1.0	Reduced direct discharges of nutrients to surface- and groundwater in vicinity of participating farms.	
	With GEF Alternative	2.1		Further reduction of nutrient run-off due to proper application of good agricultural practices in retaining nutrients through recycling. Pilot demonstrations will provide tools for economically and environmentally sound management of non-point source pollution to

				international transboundary waters.
	Incremental	1.1		
Monitoring and Assessment of Non-Point Source pollution	Baseline	0.4	Improved local capacity to implement monitoring network, and establish nutrient retention practices.	
	With GEF Alternative	1.1		Increased regional awareness of the benefits of environmental investments and ability to measure impact of coordinated action.
	Incremental	0.7		
Land Based Coastal Zone Management	Baseline	1.1	Improved coastal zone management resulting in better use of resources and increased incomes and employment opportunities for coastal communities. Community driven development approaches promoted in target coastal areas.	
	With GEF Alternative	1.8		Increased regional understanding of significance of sound coastal zone management practices; comprehensive and consistent management practices introduced in major nesting and resting areas on the migratory bird North Atlantic Flyway
	Incremental	0.7		
Component 3 Institutional Strengthening and Regional Capacity Building				
	Baseline	0.15	Strengthened local and regional governance and ecosystem-based management capacity. Improved local awareness of environmental issues and better management practices.	
	With GEF Alternative	0.15		Increased international awareness of the Baltic Sea.
	Incremental	0		
Component 4 Project Management				
	Baseline	0.96	Improved local project implementation capacity	
	With GEF Alternative	1.33		Increased capacity of international organization to manage the regional Baltic Sea resources. Better knowledge of social impacts of environmental projects on coastal and rural communities
	Incremental	0.4		
TOTALS	Baseline	7.2		
	With GEF Alternative	12.12		

	Totals	5.5	
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* Sources of non-GEF funding that contribute to the baseline cost include Recipient, Finland, Norway, Sweden, United States, and NEFCO.

Annex 5: Financial Summary
EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1
Years Ending

	IMPLEMENTATION PERIOD						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Total Financing Required							
Project Costs							
Investment Costs	2.0	4.1	3.0	0.0	0.0	0.0	0.0
Recurrent Costs	0.8	1.1	1.1	0.0	0.0	0.0	0.0
Total Project Costs	2.8	5.2	4.1	0.0	0.0	0.0	0.0
Total Financing	2.8	5.2	4.1	0.0	0.0	0.0	0.0
Financing							
IBRD/IDA	1.0	2.5	2.0	0.0	0.0	0.0	0.0
Government	0.1	0.3	0.4	0.0	0.0	0.0	0.0
Central	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Provincial	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Co-financiers	1.6	2.0	1.2	0.0	0.0	0.0	0.0
User Fees/Beneficiaries	0.1	0.4	0.5	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project Financing	2.8	5.2	4.1	0.0	0.0	0.0	0.0

Main assumptions:

It is assumed that project would become effective without delays, and project activities would start immediately after that. However, given the relatively large number of participating agencies and due to fact that they have had only limited prior experience in implementing the Bank financed projects, the disbursements during the first year of the project are estimated to be at lower levels than over the two remaining years.

Annex 6: Procurement and Disbursement Arrangements

EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

Procurement

A. Procurement Methods (See Table A)

1. **Procurement Arrangements.** The Baltic Sea Regional Project is a stand alone Global Environment Facility (GEF) Project. Procurement of works and goods financed by the GEF Trust Fund will follow the World Bank's "*Guidelines for Procurement under IBRD Loans and IDA Credits*" dated January 1995, and revised January and August 1996, September 1997 and January 1999. Procurement of services financed by the GEF Trust Fund will follow the World Bank's "*Guidelines for Selection and Employment of Consultants by World Bank Borrowers*" dated January 1997 and revised September 1997 and January 1999. The World Bank's latest editions of standard bidding documents and contracts will be used. All procurement will be handled centrally by the Project Implementation Team (PIT) to be established at HELCOM, which is based in Helsinki, Finland, prior to the effectiveness of the Grant.

Procurement Capacity Assessment of HELCOM was conducted in June 2001. It is recommended that: a) HELCOM retains the services of a qualified individual procurement specialist with significant experience in Bank procedures, to assist with procurement and disbursement actions. This specialist should have a good knowledge of international procurement. If necessary, he/she should be sent to procurement training in ILO Turin.

b) Prior to effectiveness, a one-day procurement training session should be held for the staff of the implementation agencies and the concerned beneficiary staff. Such training should be repeated during the project launch workshop.

c) A detailed procurement manual containing the roles and responsibilities of all the agencies involved in the project implementation should be prepared.

2. **Civil Works.** Works estimated to cost less than US\$300,000 equivalent per contract will be procured through NCB. (For the purposes of this multi-country project, NCB is the competitive bidding procedure advertised in the country where works are to be provided using local language and payment in local currency. Contractors from other countries are not restricted from participation.) Works contracts estimated to cost less than US\$ 50,000 each be subject to the procedure applicable to minor works contract, based on quotations obtained from three qualified domestic contractors in response to a written invitation. The invitation will include a detailed description of the work, including basic specifications, the required completion date, a basic form of agreement and relevant drawings, where applicable, and contracts will be awarded to the contractor who offers the lowest price quotation for the required work, and who has the experience and resources to successfully complete the contract.

3. **Goods and Equipment.** Technical services, equipment and other goods costing US\$100,000 and more per contract will be subject to International Competitive Bidding (ICB) requirements. For goods estimated to cost less than US\$100,000 contracts will be awarded on the basis of the Banks' International Shopping (IS) procedure, where price quotations will be obtained from at least three qualified suppliers from at least two eligible countries. Off-the-shelf goods, estimated to cost up to US\$50,000 per contract may be procured through National Shopping (NS), based on comparison of quotations obtained from at least three domestic suppliers.

4. **Consultants' Services.** Consultants financed under the Project will be selected in accordance

with Bank consultant guidelines through a quality and cost-based selection (QCBS), and by using the Bank's Standard Request for Proposals. Specialized local consultant services, will be selected on individual basis as per Section V of Consultants Guidelines. Training under the project will be implemented according to an annual training plan that the PIT will prepare and submit to the Bank for approval before implementation.

5. Contracting of Agricultural Advisory Services (AAS). It is intended to use the services of the AASs for (i) conducting the training courses for farmers participating in the Project, (ii) assisting them in preparing the business plans, and (iii) supervising the actual field work. It is proposed to contract the AASs on basis of single source selection.

Justification for Sole Sourcing. The Estonian Agricultural Advisory Service in Jäeneda, Latvian Agricultural Advisory Service in Ozolnieki, Lithuanian Agricultural Advisory Service in Dotnuva and Institute for Retraining of Specialists and Agribusiness in Kaliningrad Oblast, Russia, will be contracted by HELCOM, the recipient of GEF funds. The AASs will provide the Local Implementation Unit (LIU) services to the Component 2 of the Baltic Sea Regional Project, which will be implemented in the territories of Estonia, Latvia, Lithuania and Russian Federation.

Given the unique role of the AASs and given the fact that there are no other neither private nor state-owned agricultural extension services in the Baltic Countries and Kaliningrad oblast, selection of the AASs on sole source basis is justified. The AASs are the only agricultural extension services in the each of four states, and possess country-wide (in case of Kaliningrad Oblast - the Oblast wide) network of local offices and have adequate experience in dealing with farmers. The total amount allocated for single source selection is US\$ 0.532 million.

The AASs are public non-profit organizations which are partly owned by the state and partly by farmer organizations.

In case of Estonia, the state ownership is exercised more effectively as the director of the service is appointed by the Ministry of Agriculture; in case of Latvia and Lithuania, the charters call the AASs the non-profit making agencies. The shareholders (called participants) constitute the general meeting which establishes the supervisory board and appoints its chairperson. The supervisory board includes, among others, five nominees from Ministry of Agriculture. The executive board, members of which are elected by the general meeting, is the executive body. The members of the board elect the chairman of the board. The AASs have the right to engage the services of an auditing institution or certified auditors to audit its accounts. The agencies appear to be financially and managerially independent of the government.

6. Incremental Operating Costs. The GEF will finance some of the incremental operating costs to support local monitoring and assessment efforts, and the incremental costs of general office maintenance and operation of the, LIUs, Coordination Centers, laboratories and field stations general operating costs. This includes salaries and operating costs for the PIT, travel costs, operations and maintenance costs, consumable office supplies, telecommunication, and other costs which would not have been incurred in absence of the Project. Evidence of actual expenses will be retained by the PIT and will be reviewed by Bank staff randomly during supervision missions. These expenditures will vary according to annual budget that will be prepared by the PIT and submitted to the Bank for the agreement before any expenditures are incurred.

7. Prior Review Thresholds (Table B). The World Bank will conduct a prior review of the following procurement documentation:

a) *Goods and Equipment*: All ICB and NCB contracts, as well as first IS and NS contracts will be submitted for prior review.

b) *Works*: First MW contract in each HELCOM country will be subject to prior review.

c) *Consultants' Services*: All contracts with firms above US\$100,000, all sole source contracts, and all contracts above US\$50,000 with individual consultants will be subject to prior review.

d) The contracts that would not be subject to prior review would be subject to ex-post review.

Processing: All procurement packages will be prepared by the Procurement and Finance Specialist at the PIT following the procurement plan and procedures agreed with the Bank. The PIT will forward these packages to the Bank for prior review and 'no objection', as required

Procurement methods (Table A)

Table A: Project Costs by Procurement Arrangements
(US\$ million equivalent)

Expenditure Category	Procurement Method ¹				Total Cost
	ICB	NCB	Other ²	N.B.F.	
1. Works	0.00 (0.00)	0.00 (0.00)	0.30 (0.24)	0.45 (0.00)	0.75 (0.24)
2. Goods	0.61 (0.61)	0.00 (0.00)	1.45 (1.11)	1.56 (0.00)	3.62 (1.72)
3. Services	0.00 (0.00)	0.00 (0.00)	1.67 (1.67)	2.69 (0.00)	4.51 (1.67)
4. Sub-projects under Part B (4) of the Project	0.00 (0.00)	0.24 (0.24)	0.46 (0.46)	0.90 (0.00)	1.6 (0.70)
5. Training	0.00 (0.00)	0.00 (0.00)	0.55 (0.55)	0.10 (0.00)	0.65 (0.55)
6. Incremental Operational Costs	0.00 (0.00)	0.00 (0.00)	0.62 (0.62)	0.37 (0.00)	0.99 (0.57)
Total	0.61 (0.61)	0.24 (0.24)	5.53 (4.65)	6.32 (0.00)	12.12 (5.50)

^{1/} Figures in parenthesis are the amounts to be financed by the Bank Grant. All costs include contingencies.

^{2/} Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Prior review thresholds (Table B)

Table B: Thresholds for Procurement Methods and Prior Review ¹

Expenditure Category	Contract Value Threshold (US\$ thousands)	Procurement Method	Contracts Subject to Prior Review (US\$ millions)
1. Works	<300,000 <50,000	NCB MW	All NCB Contracts, First MW contract in each HELCOM country 0.4
2. Goods Specialized scientific equipment	<100,000 <50,000	ICB IS NS	All ICB contracts, first IS contract in each HELCOM country first NS contract in each HELCOM country 1.1
3. Services Specialized agricultural advisory services	 any	QCBS IND SSS	Above US\$100,000 - All contracts; below US\$100,000 - only TORs; Above US\$25,000 - All contracts; below US\$25,000 - only TORs; All contracts 0.8

Total value of contracts subject to prior review: US\$2,3 million

Overall Procurement Risk Assessment

Average

Frequency of procurement supervision missions proposed: One every 6 months (includes special procurement supervision for post-review/audits)

¹Thresholds generally differ by country and project. Consult OD 11.04 "Review of Procurement Documentation" and contact the Regional Procurement Adviser for guidance.

Disbursement

Allocation of grant proceeds (Table C)

Disbursements: The grant will be disbursed against 100% of eligible foreign expenditures, 100% of local expenditures (ex-factory cost), 82% of local expenditures for goods and equipment procured locally; 82% of local expenditures for works; and 100% of eligible expenditures for consultant services, operating costs and fees.

Use of Statements of Expenses (SOEs): Disbursement will be made on the basis of Statement of Expenditures (SOEs) for: (a) expenditures for goods under contracts below US\$100,000 equivalent; (b) for consultant services and training under contracts for firms below US\$100,000 equivalent; (c) for consultant services and training under contracts for individuals below US\$25,000 equivalent; and (d) travel and subsistence expenditures with respect to Consultants' services and training activities below US\$10,000 equivalent per person. The appropriate documentation will be retained by the PIT and made available for review by the auditors and for examination by Bank supervision missions.

Special Account: A Special Account denominated in Euro will be established by HELCOM in a bank acceptable to the World Bank under terms and conditions satisfactory to the Bank. The authorized allocation of the Special Account is Euro 750,000 for the equivalent of 4-5 months disbursements. The Special Account will be administered and replenished in accordance with Bank guidelines, details of the disbursement procedures will be included in the initial Disbursement Letters to be issued by the World Bank.

Table C: Allocation of Grant Proceeds

Expenditure Category	Amount in US\$million	Financing Percentage
Consultants services	1.67	100%
Goods	1.72	100% of foreign expenditures, 100% of local expenditures (ex-factory cost) and 82% of local expenditures for other items procured locally
Works	0.24	100% of foreign expenditures, 82% of local expenditures
Sub-projects under Part B (4) of the Project	0.70	100%
Incremental Operating Costs	0.62	100%
Training	0.55	100%
Total Project Costs	5.50	
Total	5.50	

Financial Management

Summary of the Financial management Assessment

HELCOM is an international organization and as such funding for the operation of its activities are provided by contracting parties, including Finland. The annual budget for the Commission is just over the equivalent of US dollars 1.5 million. Total cost for the project is estimated at

USD12.12 million of which GEF will finance USD5.50 million (45 percent); the balance will be provided in kind by national and local government farmers and from co-financing contributions. The Commission will have responsibility for funds provided under the GEF and for the financial reporting of the Project as a whole.

Accounting. The HELCOM has in place a very simple set of accounting procedures based on the accrual model. For the Project fund accounting, the cash method will be used. The accounting records are computerized using a local software by the name of ARTS. Financial Monitoring Reports, meeting Bank's requirements, will be produced on cash basis in this software package.

FMRs will be produced for each quarter with annual FMR collecting information for the year. FMRs will include statement showing for the period and cumulatively for the project life cash receipts by sources and expenditures by main expenditure classification; beginning and ending cash balances for the Project on SA. Actual figures will be shown in comparison with budgeted on breakdown as shown in the Table C and variances will be derived and explained in Notes. There will be no FMR based disbursement.

Budgeting. The Project budgeting will be prepared on a quarterly basis within the framework of the annual budgeting. Budgets will be prepared by Component Coordinators as a best estimate of the physical output followed by measurement of the output in money terms. The consolidation of the component budgets will be done by HELCOM Financial Assistant. As far as HELCOM will coordinate its work with NEFCO and other participants, budgets will include best estimated data of the other co-financiers and participants. All expenditures, which are going to be contracted will be verified with budgeted figures first. Comparison of actual and budgeted amounts will be done as at the end of each quarter. The FMRs will contain comparison actual and budgeted figures with explanation of the variances between them.

Internal Control. The core staff at HELCOM consist of 14 people. This is made of seven technical experts and seven support staff. The Administrative Officer has overall responsibility for the accounting and financial reporting function. While this is adequate to meet needs of the HELCOM, the additional responsibilities imposed by this Project requires to appoint additional staff particularly for the accounting and finance function. The HELCOM has proposed two additional staff : a project accountant (Financial Assistant) to work with the Administrative Officer and an additional support staff to accommodate the increased work load brought on by the project (Project Assistant). The Project Assistant will mainly help the Project Implementation Team (PIT) members with secretarial functions. The Bank will be asked to give its no-objection to the appointment of the Financial Assistant. The remuneration benefits for this additional staff will be provided for by the Project.

Due to small number of staff currently involved in accounting, the segregation of duties is minimal. Nevertheless, some features will be implemented. Approval of documents from the technical side will be done by Component Coordinators, then the Financial Assistant will screen all received invoices and will sign them off for subsequent review by Administrative Officer and final approval by Executive Secretary of HELCOM. Comparison with budgeted figure will be done on a quarterly basis. The Project Operations Manual will describe in detail the invoice

processing and accounting procedures.

Audit Arrangements. The books and records of accounts for the HELCOM are audited annually. Under the Headquarters agreement with the Finnish Government will be performed by Finnish State Auditor's Office, the Supreme Audit Institution of Finland. Bank will consider this Auditor as acceptable for the certification of the HELCOM (entity) financial statements. Audit of the FMR will be carried out by a competitively selected private audit company acceptable to Bank, under Terms of Reference approved by Bank. The contract for the audit awarded during the first year of project implementation and thereafter extended from year-to-year with the same auditor, subject to satisfactory performance. Fiscal year of the HELCOM and the Project is from January 1 to December 31. Acceptable audit reports should be submitted to Bank not later than 6 months after the end of the fiscal year.

Participation of co-financiers. Project will be co-financed by a number of donor institutions and the Nordic Environment Finance Corporation, which will participate in implementing Component 2, namely finance small agro-environmental investments. All the co-financing, except that of NEFCO, will be done in coordination with HELCOM, however independently and directly by respective donor institutions.

HELCOM will enter into contractual agreements with International Council for Exploration of the Sea (ICES) for implementation of Component 1, and with Swedish University of Agricultural Sciences (SLU) for implementation of Component 2. ICES will host the Component 1 Coordinator, while SLU will host the Component 2 Coordinator. In terms of financial management, the Component Coordinators will pre-approve all invoices to be paid by HELCOM from the GEF Grand fund, thus confirming that goods and services had been delivered and were in accordance with specifications and/or Terms of Reference.

HELCOM and NEFCO will enter into an contractual agreement, acceptable to Bank, under which NEFCO will handle USD 700,000 equivalent to co-finance the NEFCO loans to farmers under the Component 2. The maximum amount of the GEF grant portion in the total financing package is limited to maximum of USD 30,000 equivalent in local currency of the respective beneficiary country. HELCOM will pay NEFCO 3% commission for handling the GEF funds.

The initial deposit of GEF funds transferred to NEFCO will not exceed 15% of the total allocated sum. The larger amount can be deposited only against the bank guarantee. The GEF funds at NEFCO will be replenished after submission of SOE, supported by relevant documentation confirming payments to eligible recipients.

Training. The HELCOM Administrative Officer has undergone the formal disbursement training provided by the World Bank Institute. In addition, during the preparation stage, additional guidance was provided on the practical aspects of disbursements. This was a one on one session to reinforce the material that was presented at the disbursement training. The Project Financial Assistant to be recruited will require training in the Bank's disbursement and financial management procedures and familiarization with the Bank's procurement procedures.

Annex 7: Project Processing Schedule
EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

Project Schedule	Planned	Actual
Time taken to prepare the project (months)	18	39
First Bank mission (identification)	08/01/1999	08/24/1999
Appraisal mission departure	09/11/2000	02/04/2002
Negotiations	12/05/2000	11/05/2002
Planned Date of Effectiveness	03/15/2001	

Prepared by:

HELCOM, IBSFC, and ICES in cooperation with SLU, Jordforsk and WWF

Preparation assistance:

BSRP Core Group

Bank staff who worked on the project included:

Name	Speciality
Mohammed Bekhechi	WB Legal Advisor
John Bryant Collier	WB Operations Officer
Henrik Dissing	WWF Denmark
Martin Fodor	WB Environmental Specialist
Tatyana Frolova	WB Disbursement Specialist
Andrina Ambrose-Gardiner	WB Financial Management Specislist/Disbursement Officer
Katherin Golitzen	WB Production Coordinator/Editor
Lennart Gladh	WWF Sweden
Martha Jarosewich-Holder	WB Environmental Specialist
Andrew Hudson	UNDP-International Waters Coordinator
Clifford Isaak	WB Financial Management Specialist
Richard Kenchington	GEF-STAP Reviewer
Naushad Khan	WB Sr. Procurement Specialist
Inesis Kiskis	WB Sr. Environmental Specialist/Task Team Leader
Stephen F. Lintner	WB Senior Technical Advisor
Staffan Lund	SLU-Swedish Agricultural University
Carl Gustaf Lundin	WB Peer Reviewer
Solveig Nordström	NEFCO
Norval Stan Peabody	WB Social Scientist
Rohan Selvaratnam	Program Assistant
Kristine K.Schwebach	WB Project Assistant
Alexandre Roukavichnikov	WB Procurement Specialist
Mahesh Sharma	WB Peer Reviewer
Jitendra Srivastava	Peer Reviewer
Jan Thulin	Chairman of the BSRP Core Group

Vladimir Tsirkunov Nils Vagstad	WB Sr. Environmental Specialist Jordforsk
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Due to an automobile accident in Estonia on August 24, 1999 involving Jan Thhulin, Chairman of the BSRP Core Group and Stephen Lintner, the World Bank Task Team Leader, Project preparation was delayed for over 6 months.

Annex 8: Documents in the Project File*
EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

A. Project Implementation Plan

HELCOM, IBSFC and ICES. 2002. Baltic Sea Regional Project. Project Implementation and Procurement Plan.

B. Bank Staff Assessments

C. Other

1. Key Regional Documents

Baltic 21 Secretariat. 1998. An Agenda 21 for the Baltic Sea Region – Baltic 21, Baltic 21 Series No.1/98.

Environment for Europe. 1998. Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, June, 1998. Fourth Ministerial Conference “Environment for Europe” in Aarhus, Denmark.

European Union Council Directive Concerning the Protection of Waters against Pollution caused by Nitrates from Agricultural Sources (91/676/EEC of 12 December 1991).

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Government of Germany/World Bank. 1998 “Berlin Recommendations- Lessons Learned, Challenges and Issues for the Future.” Proceedings of the International Round Table on Transboundary Management - Experience of International River and Lake Commissions, Berlin, Germany, September 1998.

Government of Germany/World Bank. 2000. “Vilnius Recommendations: Transboundary Water Management of the Baltic Sea Region.” Proceedings of the International Round Table, Vilnius, Lithuania, June 1999.

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Helsinki Commission. 1992, updated 1998. Baltic Sea Joint Comprehensive Environmental Action Program (JCP), HELCOM, 1992, updated 1998.

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2. Technical Materials - Component 1

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Sherman, K. and A. Duda.1999. “An Ecosystem Approach to Global Assessment and Management of Coastal Waters,” Marine Ecology Progress Series, 190:271-287.

3. Technical Materials - Component 2

- Lintner, Stephen F. 1997. "Agriculture and Environment in the Baltic Sea Region: An Agenda for Action" *Ambio* 26:7, November.
- National Fund for Environmental Protection and Water Management (Poland). 1999. "Rural Environmental Protection Project, Operational Handbook."
- Swedish University of Agricultural Sciences. 1998. "Baltic Agricultural Run-off Action Program (BAAP) 1994-1997."

4. Country Level Information

Estonia

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- World Bank. 1996. Estonia - Agriculture Project. World Bank. (February 6, 1996).
- World Bank. 1999. Estonia - Involving Farmers: Social Assessment in the Estonia Agriculture Project. (October 1999).
- World Bank. 2000. Estonia - Haapsalu and Matsalu Bays Environment Project - Implementation Completion Report (draft).

Latvia

- World Bank. 1994. Latvia – Liepaja Environment Project. (MOP) (November 8, 1994) (Report No. P6402).
- World Bank. 1996. Latvia Agriculture Policy Update. (August 15, 1996) (Report No. 15913).
- World Bank. 1998. Latvia – Rural Development Project. (June 30, 1998) (Report No. 18158).
- World Bank. 1999. Farmers and Other Agriculture Organizations in Latvia. (November 1999) (Project ID. 309162336).
- World Bank. 2000. Latvia - Liepaja Environment Project - Implementation Completion Report.

Lithuania

- World Bank. 1994. Lithuania – Klaipeda Environment Project. (November 9, 1994) (Report No. 13430).
- World Bank. 1996. Lithuania –Private Agriculture Development Project. (March 7, 1996) (Report No., 14631).
- Xie, Jian, "1997. A Good Practice of Environmental Performance Indicators Used in Lithuania Siauliai Environment Project."

Poland

- World Bank. 1996. Country Procurement Assessment Report. (March 15, 1996.)
- World Bank. 1996. Poland-Agriculture Development Project - Implementation Completion Report (December 30, 1996).
- World Bank. 1997. Poland – Environment Management Project, Implementation Completion Report. (May 30, 1997) (Report No. 16640).
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[*Including electronic files](#)

Annex 9: Statement of Loans and Credits
EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1
Estonia
01-Mar-2002

Project ID	FY	Purpose	Original Amount in US\$ Millions		Cancel.	Undisb.	Difference between expected and actual disbursements ^a	
			IBRD	IDA			Orig	Frm Rev'd
P035775	2000	TRANSPORT	25.00	0.00	0.00	15.50	-6.11	0.00
P008403	1996	AGRICULTURE	15.30	0.00	0.00	0.53	4.33	0.00
Total:			40.30	0.00	0.00	16.04	-1.78	0.00

EUROPE AND CENTRAL ASIA
STATEMENT OF IFC's
Held and Disbursed Portfolio
Estonia
Jan - 2002
In Millions US Dollars

		Committed				Disbursed			
		IFC				IFC			
FY Approval	Company	Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1999	Baltic Hotel	3.40	0.00	0.84	0.00	3.40	0.00	0.84	0.00
2002	EVR	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997/99	Eesti Uhispank	14.58	0.00	0.00	0.00	14.58	0.00	0.00	0.00
1996	Elcoteq Tallinn	1.54	0.00	0.00	0.00	1.54	0.00	0.00	0.00
1998/99	Horizon	6.10	0.00	1.79	0.00	5.20	0.00	0.98	0.00
2001	Krenholm	4.67	0.00	2.38	10.04	3.75	0.00	2.38	8.06
1999	Reval Hotel	6.78	2.00	0.00	0.00	2.20	1.00	0.00	0.00
Total Portfolio:		87.07	2.00	5.01	10.04	30.67	1.00	4.20	8.06
		Approvals Pending Commitment							
FY Approval	Company	Loan	Equity	Quasi	Partic				
Total Pending Commitment:		0.00	0.00	0.00	0.00				

LATVIA
01-Mar-2002

Project ID	FY	Purpose	Original Amount in US\$ Millions				Difference between expected and actual disbursements ^a	
			IBRD	IDA	GEF	Cancel.	Undisb.	Orig Frm Rev'd
P058476	2001	LIEPAJA S.W. MGMT.	2.22	0.00	0.00	0.00	2.20	0.39 0.17
P008530	2001	RIGA DIST HEAT	36.16	0.00	0.00	0.00	35.62	7.39 0.00
P058520	1999	HEALTH	12.00	0.00	0.00	0.00	5.90	8.04 0.00
P055585	1999	STATE REVENUE SERVIC	5.00	0.00	0.00	0.00	2.01	3.08 0.00
P049172	1999	EDUC IMPROVMT	31.10	0.00	0.00	0.00	7.35	-6.49 0.00
P045716	1998	SOLID WASTE MGMT (GEF)	0.00	0.00	5.10	0.00	2.43	2.68 0.00
P040553	1998	SOLID WASTE MGMT	7.95	0.00	5.10	0.00	5.29	4.09 0.15
P035807	1997	WELFARE REFORM	18.10	0.00	0.00	0.00	4.32	7.09 0.00
P034584	1996	MUN SERVICES DEVT	27.30	0.00	0.00	0.02	0.50	0.52 0.00
Total:			139.83	0.00	10.20	0.02	65.61	26.80 0.33

EUROPE AND CENTRAL ASIA
STATEMENT OF IFC's
Held and Disbursed Portfolio
Jan - 2002
In Millions US Dollars

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
0/95	Lattelekom SIA	2.86	13.55	0.00	0.00	2.86	13.55	0.00	0.00
1996	Vika Wood	1.20	0.00	0.00	0.00	1.20	0.00	0.00	0.00
Total Portfolio:		4.06	13.55	0.00	0.00	4.06	13.55	0.00	0.00

FY Approval	Company	Approvals Pending Commitment			
		Loan	Equity	Quasi	Partic
2001	Linstow Retail	17.00	8.00	0.00	35.00
Total Pending Commitment:		17.00	8.00	0.00	35.00

LITHUANIA
01-Mar-2002

Project ID	FY	Purpose	Original Amount in US\$ Millions					Difference between expected and actual disbursements ^a	
			IBRD	IDA	GEF	Cancel.	Undisb.	Orig	Frm Rev'd
P063656	2002	VILNIUS DISTRICT HEATING (BB)	17.10	0.00	0.00	0.00	16.93	0.33	0.00
P068706	2001	SAL 2	98.50	0.00	0.00	0.00	47.77	49.43	0.00
P035780	2000	HEALTH	21.24	0.00	0.00	0.00	19.32	4.68	0.00
P035776	2000	KLAIPEDA PORT	35.36	0.00	0.00	0.00	19.90	2.54	0.00
P035802	1999	MUNICIPAL DEV'T.	20.10	0.00	0.00	0.00	6.50	-0.57	0.00
P008539	1997	SOC. POL. COMM SERV	3.70	0.00	0.00	0.00	1.39	1.39	0.00
P036011	1996	KLAIPEDA GEOTHERMAL	5.90	0.00	6.90	0.00	0.56	0.56	0.39
P008553	1995	KLAIPEDA ENVIRONMENT	7.00	0.00	0.00	0.00	1.24	1.24	1.18
P008537	1994	POWER REHABILITATION	26.40	0.00	0.00	0.00	0.81	0.81	0.81
Total:			235.30	0.00	6.90	0.00	114.44	60.42	2.38

EUROPE AND CENTRAL ASIA
STATEMENT OF IFC's
Held and Disbursed Portfolio
Jan - 2002
In Millions US Dollars

		Committed				Disbursed			
		IFC				IFC			
FY Approval	Company	Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
2000	Drobe Wool	6.10	0.50	0.00	0.00	3.80	0.50	0.00	0.00
1999	Ekranas	10.39	0.00	1.94	0.00	10.39	0.00	1.94	0.00
0	Margarino	0.29	0.00	0.00	0.00	0.29	0.00	0.00	0.00
1999/01	Vilniaus Bankas	0.00	0.00	19.38	0.00	0.00	0.00	19.38	0.00
Total Portfolio:		16.78	0.50	21.32	0.00	14.48	0.50	21.32	0.00
		Approvals Pending Commitment							
FY Approval	Company	Loan	Equity	Quasi	Partic				
Total Pending Commitment:		0.00	0.00	0.00	0.00				

POLAND
01-Mar-2002

Project ID	FY	Purpose	Original Amount in US\$ Millions					Difference between expected and actual disbursements ^a	
			IBRD	IDA	SF	GEF	Cancel.	Undisb.	Orig Frm Rev'd
P065059	2001	KRAKOW ENRGY EFF	15.00	0.00	0.00	0.00	0.00	15.52	4.29 0.00
P040795	2001	RAIL RESTRCT (PKP)	101.04	0.00	0.00	0.00	0.00	45.33	-15.78 0.00
P008615	2001	SEAWAY/PORT MOD. (SZCZECIN-SWINOUJSCIE)	38.50	0.00	0.00	0.00	0.00	33.23	6.49 0.00
P050660	2000	RURAL ENV PROT	2.50	0.00	0.00	0.00	0.00	1.10	0.91 0.00
P057993	2000	GEOTHERMAL & ENV (PODHALE) (GEF)	0.00	0.00	0.00	5.40	0.00	3.94	4.43 0.00
P058202	2000	RURAL DEVELOPMENT - PL	120.00	0.00	0.00	0.00	0.00	93.78	51.10 0.00
P059613	2000	RURAL ENV PROT (GEF)	0.00	0.00	0.00	3.00	0.00	2.74	2.00 0.00
P037339	2000	GEOTHERMAL AND ENVIRONMENT (PODHALE)	38.20	0.00	0.00	0.00	0.00	25.75	11.85 0.00
P008593	1998	ROADS II	300.00	0.00	0.00	0.00	0.00	115.36	92.03 0.00
P053796	1998	FLOOD EMERGENCY PL	200.00	0.00	0.00	0.00	0.00	61.53	61.53 -0.13
P036061	1997	PORT ACCESS & MGMT.	67.00	0.00	0.00	0.00	0.00	11.25	10.61 0.00
P008595	1996	BIELSKO-BIALA WATER	21.50	0.00	0.00	0.00	0.00	5.92	8.89 0.00
P008604	1996	POWER TRANSMISSION	160.00	0.00	0.00	0.00	0.00	52.60	78.19 0.00
P008563	1995	COAL TO GAS CONV (GEF)	0.00	0.00	0.00	25.00	0.00	6.59	10.30 0.89
P008587	1992	HEALTH	130.00	0.00	0.00	0.00	35.00	11.01	46.01 9.51
Total:			1,193.74	0.00	0.00	33.40	35.00	485.64	372.85 10.27

EUROPE AND CENTRAL ASIA
STATEMENT OF IFC's
Held and Disbursed Portfolio
Jan - 2002
In Millions US Dollars

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1996	Baltic Malt	2.30	0.00	1.93	0.00	2.30	0.00	1.87	0.00
1997	CPF	0.00	1.60	0.00	0.00	0.00	1.49	0.00	0.00
0	ESCO Polska	0.00	0.21	0.00	0.00	0.00	0.21	0.00	0.00
1996/97	Gaspol	0.00	0.98	0.00	0.00	0.00	0.98	0.00	0.00
1998	Global Hotels	2.82	3.20	3.92	0.00	0.00	3.20	2.34	0.00
1993	Huta Warszawa	5.08	0.00	3.75	0.00	5.08	0.00	3.75	0.00
1995/97/98/00	Intercell	0.00	2.06	0.00	0.00	0.00	2.06	0.00	0.00
1997	Norgips	7.14	0.00	0.00	12.40	7.14	0.00	0.00	12.40
1993	PEF-Poland	0.00	1.50	0.00	0.00	0.00	1.50	0.00	0.00
1998	Paroc Polska	6.41	0.00	0.00	0.00	6.41	0.00	0.00	0.00
1994	Peters	5.58	1.00	0.00	0.00	5.58	0.88	0.00	0.00
1993	Sandoglass	6.61	0.00	0.00	0.00	6.61	0.00	0.00	0.00
Total Portfolio:		35.94	10.55	9.60	12.40	33.12	10.32	7.96	12.40
FY Approval	Company	Approvals Pending Commitment							
		Loan	Equity	Quasi	Partic				

Total Pending Commitment:	0.00	0.00	0.00	0.00
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RUSSIAN FEDERATION
01-Mar-2002

Project ID	FY	Purpose	Original Amount in US\$ Millions					Difference between expected and actual disbursements ^a	
			IBRD	IDA	GEF	Cancel.	Undisb.	Orig	Frm Rev'd
P050489	2002	FISC FED & REG FISC REF	120.00	0.00	0.00	0.00	120.00	0.00	0.00
P008832	2001	MUN WATER & WW	122.50	0.00	0.00	0.00	122.50	20.42	0.00
P046061	2001	MOSC URB TRANS	60.00	0.00	0.00	0.00	58.32	12.99	0.00
P050474	2001	EDUC REFORM	50.00	0.00	0.00	0.00	50.00	4.27	0.00
P038551	2001	MUN HEATING	85.00	0.00	0.00	0.00	85.00	4.11	0.82
P064238	2001	N RESTRUCT	80.00	0.00	0.00	0.00	80.00	1.00	0.00
P053830	2000	SUST FORESTRY PILOT-RU	60.00	0.00	0.00	0.00	60.00	6.50	0.00
P058587	2000	REG FISC TA	30.00	0.00	0.00	0.00	25.82	9.12	0.00
P050487	1999	STATE STATS SYST	30.00	0.00	0.00	0.00	27.73	11.07	2.43
P046496	1998	SOC PROT IMPL	28.60	0.00	0.00	0.00	13.08	13.08	0.00
P042720	1997	ST PETERSBURG REHAB	31.00	0.00	0.00	0.00	0.01	0.01	0.00
P044200	1997	BUREAU OF ECON POL	22.60	0.00	0.00	0.00	4.69	2.78	-0.26
P008814	1997	HEALTH REFORM PILOT	66.00	0.00	0.00	0.00	41.82	33.26	0.00
P008825	1997	EDUC INNOV	71.00	0.00	0.00	3.00	51.46	29.09	0.00
P050891	1997	ELEC SECTR REF	40.00	0.00	0.00	0.00	37.61	37.61	37.61
P045622	1996	COAL IAP	25.00	0.00	0.00	0.00	7.40	7.40	7.40
P042622	1996	CAP MRKT DEV	89.00	0.00	0.00	33.75	31.38	65.13	9.80
P008801	1996	BIODIV CONSV (GEF)	0.00	0.00	20.10	0.00	2.22	4.10	-5.36
P008831	1996	LEGAL REFORM	58.00	0.00	0.00	0.00	28.61	28.61	19.10
P008800	1996	ODS CONSUM PHASEOUT(GEF)	0.00	0.00	60.00	0.00	14.53	21.75	-12.81
P035761	1996	COMMUNITY SOC INF	200.00	0.00	0.00	56.50	49.24	86.41	11.24
P035764	1996	BRIDGE REHAB	350.00	0.00	0.00	195.33	13.45	208.78	50.78
P036973	1996	ENT HOUSING DIVST	300.00	0.00	0.00	122.74	126.40	229.14	42.77
P008806	1995	URBAN TRANSPORT	329.00	0.00	0.00	77.60	2.60	80.20	1.17
P008803	1995	EGY EFF	106.50	0.00	3.20	40.00	9.92	86.42	-0.09
P040409	1995	EMG OIL SPILL MITIGATION	99.00	0.00	0.00	0.00	1.36	1.36	1.12
P008821	1995	ENV MGMT	110.00	0.00	0.00	0.00	52.51	52.51	5.63
P008823	1995	PORTFOLIO DEVT	40.00	0.00	0.00	6.95	7.92	14.87	12.84
P008827	1995	HOUSING	400.00	0.00	0.00	150.73	60.90	211.63	60.90
P034579	1994	LAND REF IMPL SUPPORT	80.00	0.00	0.00	0.00	22.93	22.93	-9.75
P008839	1994	ENTERPRISE SUPPORT	200.00	0.00	0.00	0.00	150.60	150.60	16.59
P008828	1994	FIN INSTS	200.00	0.00	0.00	59.50	65.16	124.66	27.18
Total:			3,483.20	0.00	83.30	746.10	1,425.20	1,581.82	279.10

EUROPE AND CENTRAL ASIA

STATEMENT OF IFC's

Held and Disbursed Portfolio

Jan - 2002

In Millions US Dollars

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1996/98	Alpha Cement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997/99	Aminex	0.00	0.12	0.00	0.00	0.00	0.12	0.00	0.00
1998	Borsteklo	0.00	15.00	0.00	0.00	0.00	15.00	0.00	0.00
2001	Bravo	15.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00
1999	Campina	6.88	0.00	0.00	0.00	6.88	0.00	0.00	0.00
1998	DCC	0.00	0.05	0.00	0.00	0.00	0.05	0.00	0.00
1999	DLV	0.00	0.60	0.00	0.00	0.00	0.60	0.00	0.00
1995	Depsona Z.A.O.	0.00	0.00	1.50	0.00	0.00	0.00	1.50	0.00
1998	DreVo	0.00	0.90	0.00	0.00	0.00	0.89	0.00	0.00
1995	First NIS Fund	0.00	6.30	0.00	0.00	0.00	6.30	0.00	0.00
1994	Framlington Fund	0.00	8.00	0.00	0.00	0.00	8.00	0.00	0.00
2000	Ikea MOS	15.00	0.00	0.00	0.00	15.00	0.00	0.00	0.00
1998	Mosenergo	17.99	0.00	0.00	0.00	17.99	0.00	0.00	0.00
2002	NBD	2.50	0.00	0.00	0.00	2.50	0.00	0.00	0.00
2001	NMC	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	OMGC	10.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
1996	Pioneer First	0.00	4.00	0.00	0.00	0.00	4.00	0.00	0.00
2001	Probusiness Bank	0.00	0.00	5.00	0.00	0.00	0.00	5.00	0.00
1994	RTDC	0.00	7.50	0.00	0.00	0.00	7.50	0.00	0.00
1998/01	Ramstore	30.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
1995	Russ Tech Fnd	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
1994	Russia Registry	0.00	1.50	0.00	0.00	0.00	1.50	0.00	0.00
0	SCF Restructured	0.00	0.05	0.00	0.00	0.00	0.05	0.00	0.00
2002	Sonic Duo	24.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00
1998	Toribank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	UNEXIM Bank	5.28	0.00	0.00	0.00	5.28	0.00	0.00	0.00
1998	ZAO Storaenso	5.40	1.50	0.00	0.00	5.40	1.50	0.00	0.00
Total Portfolio:		134.15	46.52	6.50	17.00	93.05	46.51	6.50	0.00

FY Approval	Company	Approvals Pending Commitment			
		Loan	Equity	Quasi	Partic
2001	Bema Gold	0.00	0.00	1.00	0.00
1999	DLV	3.00	0.00	0.00	0.00
2001	Ford Russia	55.00	0.00	0.00	55.00
2001	Pakenso - RI	0.00	0.00	0.20	0.00
2001	Ruscam	13.00	0.00	0.00	0.00
2002	Russ Stdard Bnk	15.00	0.00	0.00	0.00
2002	Sonic Duo	0.00	6.00	0.00	0.00
2002	Swedwood Tichvin	5.90	0.00	0.00	0.00
2001	Volga-Dnepr	25.00	0.00	0.00	25.00
Total Pending Commitment:		116.90	6.00	1.20	80.00

Annex 10: Country at a Glance

EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

Estonia

POVERTY and SOCIAL	Estonia	Europe & Central Asia	Upper-middle-income
2000			
Population, mid-year (<i>millions</i>)	1.4	475	647
GNI per capita (<i>Atlas method, US\$</i>)	3,530	2,010	4,620
GNI (<i>Atlas method, US\$ billions</i>)	5.1	956	2,986
Average annual growth, 1994-00			
Population (%)	-0.7	0.1	1.3
Labor force (%)	-0.4	0.6	2.0
Most recent estimate (latest year available, 1994-00)			
Poverty (% of population below national poverty line)	9	..	..
Urban population (% of total population)	69	67	76
Life expectancy at birth (<i>years</i>)	71	69	69
Infant mortality (<i>per 1,000 live births</i>)	10	21	28
Child malnutrition (% of children under 5)	..	..	..
Access to an improved water source (% of population)	..	90	87
Illiteracy (% of population age 15+)	..	3	10
Gross primary enrollment (% of school-age population)	94	100	107
Male	95	101	106
Female	93	99	105

Development diamond*

Life expectancy

GNI per capita

Gross primary enrollment

Access to improved water source

— Estonia

— Upper-middle-income group

KEY ECONOMIC RATIOS and LONG-TERM TRENDS	1980	1990	1999	2000	
GDP (<i>US\$ billions</i>)	..	6.8	5.2	5.0	
Gross domestic investment/GDP	..	30.2	24.7	24.1	
Exports of goods and services/GDP	77.0	96.5	
Gross domestic savings/GDP	..	22.3	18.7	19.8	
Gross national savings/GDP	18.9	17.3	
Current account balance/GDP	-4.7	-6.3	
Interest payments/GDP	0.4	1.6	
Total debt/GDP	47.4	50.5	
Total debt service/exports	1.9	2.2	
Present value of debt/GDP	39.1	
Present value of debt/exports	39.6	
(average annual growth)	1980-90	1990-00	1999	2000	2000-04
GDP	2.2	-0.5	-1.1	6.4	4.9
GDP per capita	1.5	0.5	-0.6	7.0	5.3
Exports of goods and services	..	11.3	-2.3	32.9	7.5

Economic ratios*

Trade

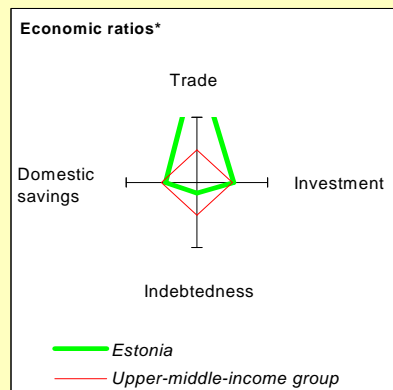
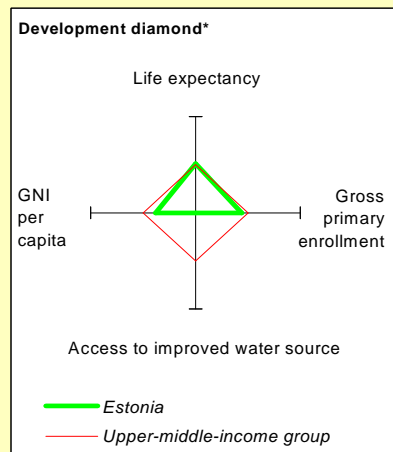
Domestic savings

Investment

Indebtedness

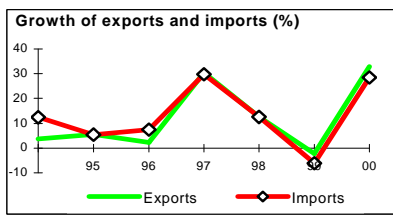
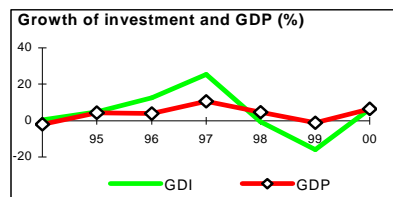
— Estonia

— Upper-middle-income group



STRUCTURE of the ECONOMY

	1980	1990	1999	2000
(% of GDP)				
Agriculture	..	16.6	5.8	5.3
Industry	..	49.7	25.7	27.3
Manufacturing	..	42.1	15.4	16.9
Services	..	33.7	68.5	67.4
Private consumption	..	62.1	57.6	58.1
General government consumption	..	15.5	23.7	22.2
Imports of goods and services	..	..	83.0	100.8
(average annual growth)	1980-90	1990-00	1999	2000
Agriculture	..	-3.3	-1.4	-3.2
Industry	..	-2.7	-6.6	14.1
Manufacturing	..	3.3	-2.6	16.8
Services	..	1.6	2.1	3.8
Private consumption	..	1.2	-3.6	6.1
General government consumption	..	4.7	7.9	0.8
Gross domestic investment	..	-1.6	-15.9	6.4
Imports of goods and services	..	12.0	-6.1	28.5



Note: 2000 data are preliminary estimates.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

PRICES and GOVERNMENT FINANCE

Domestic prices

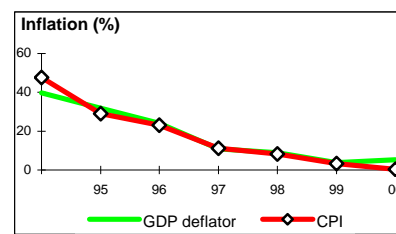
(% change)

	1980	1990	1999	2000
Consumer prices	3.3	0.3
Implicit GDP deflator	..	33.7	3.9	5.3

Government finance

(% of GDP, includes current grants)

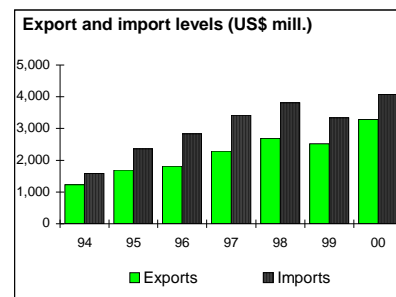
Current revenue	..	..	36.4	35.8
Current budget balance	..	..	-2.5	-0.5
Overall surplus/deficit	..	..	-4.7	-0.4



TRADE

(US\$ millions)

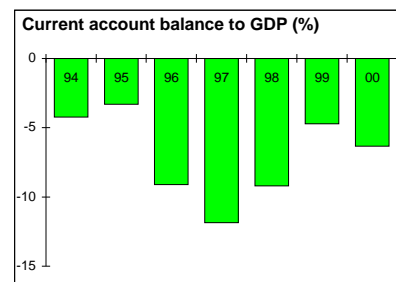
	1980	1990	1999	2000
Total exports (fob)	2,515	3,289
Food	216	257
Minerals	60	74
Manufactures	2,239	2,753
Total imports (cif)	3,337	4,077
Food	371	432
Fuel and energy	207	271
Capital goods	1,056	1,110
Export price index (1995=100)	122	131
Import price index (1995=100)	88	94
Terms of trade (1995=100)	138	140



BALANCE of PAYMENTS

(US\$ millions)

	1980	1990	1999	2000
Exports of goods and services	4,004	4,787
Imports of goods and services	4,262	5,035
Resource balance	-258	-249
Net income	-102	-204
Net current transfers	113	138
Current account balance	-247	-315
Financing items (net)	417	383
Changes in net reserves	-170	-69

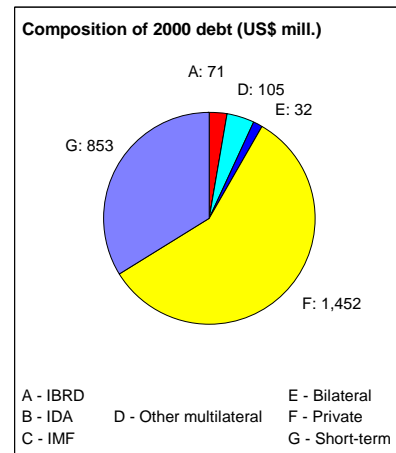
**Memo:**

Reserves including gold (US\$ millions)	..	..	946	1,014
Conversion rate (DEC, local/US\$)	..	..	14.4	17.0

EXTERNAL DEBT and RESOURCE FLOWS

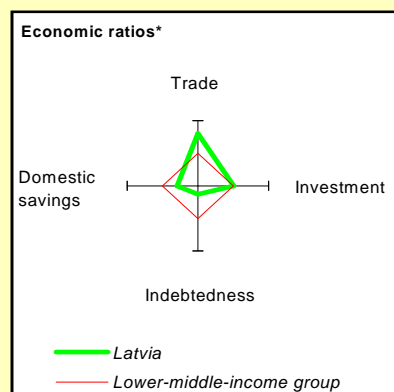
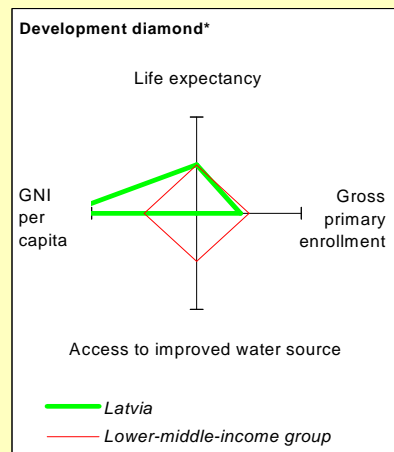
(US\$ millions)

	1980	1990	1999	2000
Total debt outstanding and disbursed	2,478	2,513
IBRD	88	71
IDA	0	0
Total debt service	79	110
IBRD	8	19
IDA	0	0
Composition of net resource flows				
Official grants	0	1
Official creditors	7	-28
Private creditors	-35	-46
Foreign direct investment	222	324
Portfolio equity	21	116
World Bank program				
Commitments	0	25
Disbursements	19	4
Principal repayments	3	14
Net flows	16	-9
Interest payments	5	5
Net transfers	11	-15



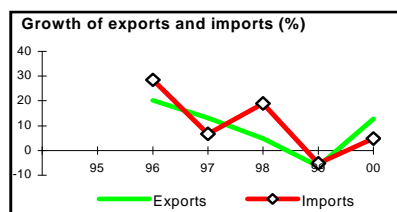
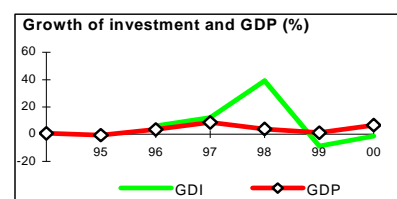
Latvia

POVERTY and SOCIAL				Europe & Central Asia	Lower-middle-income
	Latvia				
2000					
Population, mid-year (<i>millions</i>)	2.4	475	2,046		
GNI per capita (<i>Atlas method, US\$</i>)	2,870	2,010	1,140		
GNI (<i>Atlas method, US\$ billions</i>)	6.9	956	2,327		
Average annual growth, 1994-00					
Population (%)	-0.9	0.1	1.0		
Labor force (%)	-0.8	0.6	1.3		
Most recent estimate (latest year available, 1994-00)					
Poverty (% of population below national poverty line)	..	..	..
Urban population (% of total population)	69	67	42		
Life expectancy at birth (<i>years</i>)	70	69	69		
Infant mortality (<i>per 1,000 live births</i>)	14	21	32		
Child malnutrition (% of children under 5)	..	..	11		
Access to an improved water source (% of population)	..	90	80		
Illiteracy (% of population age 15+)	0	3	15		
Gross primary enrollment (% of school-age population)	96	100	114		
Male	98	101	116		
Female	93	99	114		
KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1980	1990	1999	2000	
GDP (<i>US\$ billions</i>)	..	12.5	6.7	7.2	
Gross domestic investment/GDP	25.6	40.1	27.0	27.1	
Exports of goods and services/GDP	..	47.7	43.8	45.8	
Gross domestic savings/GDP	32.7	38.8	16.7	18.6	
Gross national savings/GDP	..	..	17.4	20.3	
Current account balance/GDP	..	..	-9.7	-6.8	
Interest payments/GDP	..	0.0	1.5	1.1	
Total debt/GDP	..	0.0	39.9	41.0	
Total debt service/exports	..	..	9.2	7.5	
Present value of debt/GDP	..	..	13.1	13.2	
Present value of debt/exports	..	..	28.4	26.5	
	1980-90	1990-00	1999	2000	2000-04
(<i>average annual growth</i>)					
GDP	5.8	-3.4	1.1	6.6	5.0
GDP per capita	5.2	-2.4	1.8	7.2	5.7
Exports of goods and services	..	1.4	-6.4	12.8	6.9



STRUCTURE of the ECONOMY

	1980	1990	1999	2000
(% of GDP)				
Agriculture	11.8	21.9	4.5	4.5
Industry	50.9	46.2	27.0	25.3
Manufacturing	46.0	34.5	15.3	14.5
Services	37.2	31.9	68.5	70.2
Private consumption	59.4	52.7	62.8	62.5
General government consumption	7.9	8.6	20.5	18.9
Imports of goods and services	..	49.0	54.1	54.3
(<i>average annual growth</i>)				
Agriculture	4.2	-7.0	-7.3	9.2
Industry	6.5	-8.4	-3.4	5.1
Manufacturing	6.7	-7.8	-5.9	5.7
Services	5.1	2.5	5.1	7.1
Private consumption	5.4	-4.8	5.1	5.6
General government consumption	5.0	7.8	0.0	-2.9
Gross domestic investment	3.4	-1.9	-8.7	-1.3
Imports of goods and services	..	2.4	-5.2	4.8



Note: 2000 data are preliminary estimates.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

PRICES and GOVERNMENT FINANCE

Domestic prices

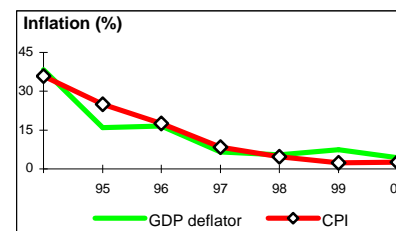
(% change)

	1980	1990	1999	2000
Consumer prices	..	..	2.4	2.6
Implicit GDP deflator	0.5	-27.8	7.4	4.3

Government finance

(% of GDP, includes current grants)

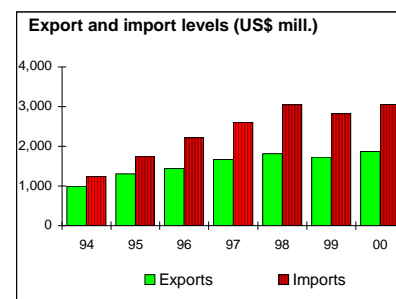
Current revenue	..	..	40.0	37.5
Current budget balance	..	..	0.7	0.6
Overall surplus/deficit	..	..	-3.9	-3.3



TRADE

(US\$ millions)

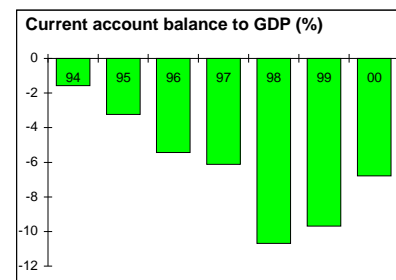
	1980	1990	1999	2000
Total exports (fob)	1,724	1,869
n.a.
n.a.
Manufactures	1,582	1,711
Total imports (cif)	2,824	3,057
Food	256	285
Fuel and energy	129	135
Capital goods	538	521
Export price index (1997=100)	96	95
Import price index (1997=100)	93	99
Terms of trade (1997=100)	104	96



BALANCE of PAYMENTS

(US\$ millions)

	1980	1990	1999	2000
Exports of goods and services	2,914	3,271
Imports of goods and services	3,605	3,876
Resource balance	-691	-606
Net income	-48	25
Net current transfers	93	96
Current account balance	-646	-485
Financing items (net)	811	513
Changes in net reserves	-165	-28

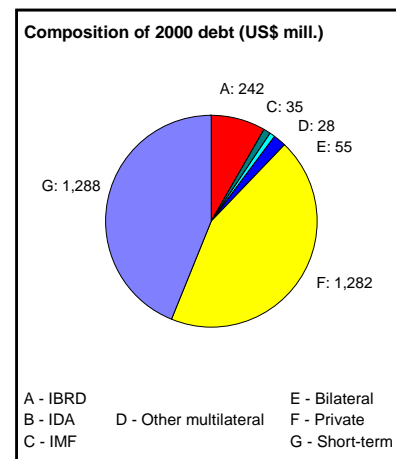
**Memo:**

Reserves including gold (US\$ millions)	..	..	1,124	1,092
Conversion rate (DEC, local/US\$)	..	..	0.6	0.6

EXTERNAL DEBT and RESOURCE FLOWS

(US\$ millions)

	1980	1990	1999	2000
Total debt outstanding and disbursed	2,657	2,930
IBRD	200	242
IDA	0	0
Total debt service	283	265
IBRD	17	21
IDA	0	0
Composition of net resource flows				
Official grants	23	32
Official creditors	47	-10
Private creditors	267	-233
Foreign direct investment	331	398
Portfolio equity	273	-321
World Bank program				
Commitments	36	79
Disbursements	28	63
Principal repayments	4	9
Net flows	24	54
Interest payments	13	12
Net transfers	11	42



Lithuania

POVERTY and SOCIAL		Europe & Central Asia	Lower-middle-income
	Lithuania	Asia	
2000			
Population, mid-year (millions)	3.7	475	2,046
GNI per capita (Atlas method, US\$)	2,750	2,010	1,140
GNI (Atlas method, US\$ billions)	10.2	956	2,327
Average annual growth, 1994-00			
Population (%)	-0.1	0.1	1.0
Labor force (%)	-1.0	0.6	1.3
Most recent estimate (latest year available, 1994-00)			
Poverty (% of population below national poverty line)	16	..	..
Urban population (% of total population)	68	67	42
Life expectancy at birth (years)	72	69	69
Infant mortality (per 1,000 live births)	9	21	32
Child malnutrition (% of children under 5)	..	..	11
Access to an improved water source (% of population)	66	90	80
Illiteracy (% of population age 15+)	1	3	15
Gross primary enrollment (% of school-age population)	98	100	114
Male	100	101	116
Female	96	99	114

Development diamond*

Life expectancy

GNI per capita

Gross primary enrollment

Access to improved water source

Lithuania

Lower-middle-income group

KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1980	1990	1999	2000	
GDP (US\$ billions)	10.2	11.2	
Gross domestic investment/GDP	..	32.6	22.7	20.7	
Exports of goods and services/GDP	..	52.1	39.7	45.5	
Gross domestic savings/GDP	..	24.0	12.3	14.2	
Gross national savings/GDP	11.5	14.7	
Current account balance/GDP	-11.7	-6.0	
Interest payments/GDP	1.6	1.9	
Total debt/GDP	44.4	43.2	
Total debt service/exports	17.8	19.7	
Present value of debt/GDP	
Present value of debt/exports	
	1980-90	1990-00	1999	2000	2000-04
(average annual growth)					
GDP	..	-3.1	-3.9	3.3	5.0
GDP per capita	..	-3.0	-3.8	3.4	5.1
Exports of goods and services	..	4.8	-13.1	9.0	7.2

Economic ratios*

Trade

Domestic savings

Investment

Indebtedness

Lithuania

Lower-middle-income group

STRUCTURE of the ECONOMY				
	1980	1990	1999	2000
(% of GDP)				
Agriculture	..	27.1	8.5	7.7
Industry	..	30.9	31.4	33.0
Manufacturing	..	20.9	17.9	21.4
Services	..	42.1	60.1	59.2
Private consumption	..	56.8	65.5	64.3
General government consumption	..	19.2	22.2	21.5
Imports of goods and services	..	60.7	50.1	51.9
	1980-90	1990-00	1999	2000
(average annual growth)				
Agriculture	..	0.4	-12.3	2.0
Industry	..	2.0	-10.2	2.0
Manufacturing	..	3.1	-8.7	10.2
Services	..	4.4	2.1	4.3
Private consumption	..	5.6	2.1	3.8
General government consumption	..	1.1	-17.5	-0.7
Gross domestic investment	..	7.0	-9.6	-9.3
Imports of goods and services	..	7.5	-13.1	4.5

Growth of investment and GDP (%)

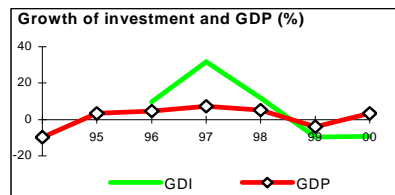
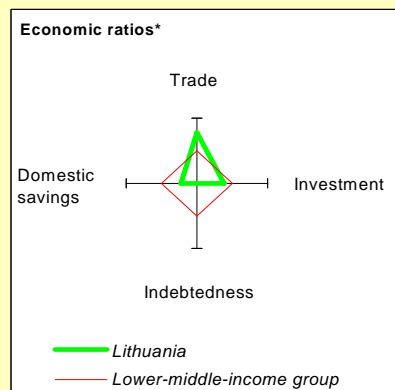
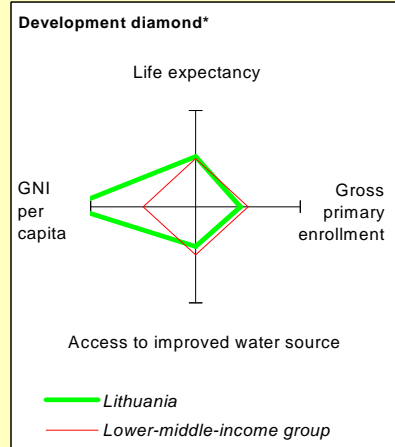
GDI

GDP

Growth of exports and imports (%)

Exports

Imports

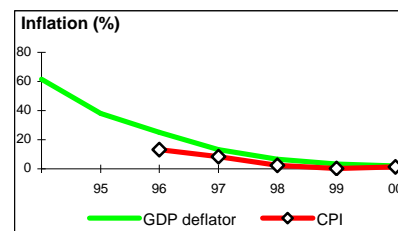


Note: 2000 data are preliminary estimates.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

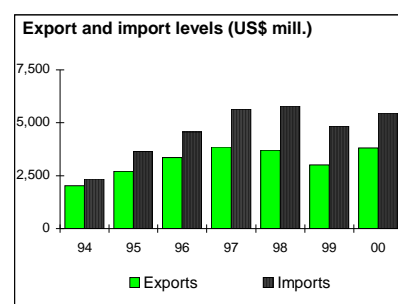
PRICES and GOVERNMENT FINANCE

	1980	1990	1999	2000
Domestic prices				
(% change)				
Consumer prices	0.3	1.4
Implicit GDP deflator	3.2	2.0
Government finance				
(% of GDP, includes current grants)				
Current revenue	32.1	30.1
Current budget balance	-4.0	-0.8
Overall surplus/deficit	-8.5	-2.8



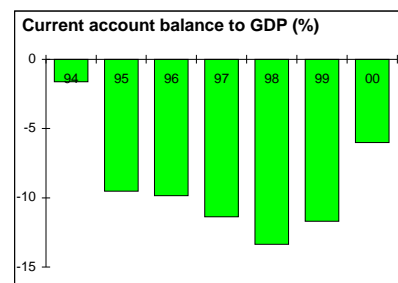
TRADE

	1980	1990	1999	2000
(US\$ millions)				
Total exports (fob)	3,004	3,809
Mineral products	452	809
Agricultural and food	282	446
Manufactures	1,391	1,621
Total imports (cif)	4,835	5,457
Food	384	363
Fuel and energy	709	1,185
Capital goods	722	684
Export price index (1995=100)	106	113
Import price index (1995=100)	93	102
Terms of trade (1995=100)	114	111



BALANCE of PAYMENTS

	1980	1990	1999	2000
(US\$ millions)				
Exports of goods and services	4,238	5,109
Imports of goods and services	5,338	5,833
Resource balance	-1,099	-724
Net income	-258	-194
Net current transfers	163	243
Current account balance	-1,194	-675
Financing items (net)	998	806
Changes in net reserves	196	-131

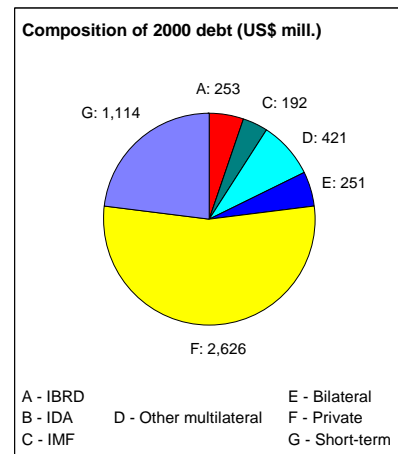


Memo:

Reserves including gold (US\$ millions)	..	..	1,242	1,359
Conversion rate (DEC, local/US\$)	..	..	4.2	4.0

EXTERNAL DEBT and RESOURCE FLOWS

	1980	1990	1999	2000
(US\$ millions)				
Total debt outstanding and disbursed	4,528	4,857
IBRD	200	253
IDA	0	0
Total debt service	776	1,046
IBRD	15	24
IDA	0	0
Composition of net resource flows				
Official grants	10	63
Official creditors	267	84
Private creditors	442	142
Foreign direct investment	477	375
Portfolio equity	9	122
World Bank program				
Commitments	41	134
Disbursements	30	66
Principal repayments	4	9
Net flows	26	57
Interest payments	11	15
Net transfers	16	42



Poland

POVERTY and SOCIAL		Europe & Central Asia	Upper-middle-income
	Poland	Asia	
2000			
Population, mid-year (millions)	38.7	475	647
GNI per capita (Atlas method, US\$)	4,210	2,010	4,620
GNI (Atlas method, US\$ billions)	162.7	956	2,986
Average annual growth, 1994-00			
Population (%)	0.0	0.1	1.3
Labor force (%)	0.6	0.6	2.0
Most recent estimate (latest year available, 1994-00)			
Poverty (% of population below national poverty line)	..	..	..
Urban population (% of total population)	66	67	76
Life expectancy at birth (years)	73	69	69
Infant mortality (per 1,000 live births)	9	21	28
Child malnutrition (% of children under 5)	..	..	..
Access to an improved water source (% of population)	74	90	87
Illiteracy (% of population age 15+)	0	3	10
Gross primary enrollment (% of school-age population)	96	100	107
Male	97	101	106
Female	96	99	105

Development diamond*

Life expectancy

GNI per capita

Gross primary enrollment

Access to improved water source

Poland

Upper-middle-income group

KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1980	1990	1999	2000	
GDP (US\$ billions)	..	59.0	157.7	162.2	
Gross domestic investment/GDP	..	25.6	26.4	26.5	
Exports of goods and services/GDP	..	28.6	26.1	27.4	
Gross domestic savings/GDP	..	32.8	20.0	19.6	
Gross national savings/GDP	20.4	20.0	
Current account balance/GDP ¹	-7.3	-6.1	
Interest payments/GDP	..	0.3	1.1	1.4	
Total debt/GDP	..	83.7	41.1	42.0	
Total debt service/exports	26.6	29.3	
Present value of debt/GDP	32.4	..	
Present value of debt/exports	162.3	..	
	1980-90	1990-00	1999	2000	2000-04
(average annual growth)					
GDP	..	4.6	4.1	4.0	3.4
GDP per capita	..	4.5	4.1	4.0	3.2
Exports of goods and services	..	10.5	-2.6	6.0	7.1

Economic ratios*

Trade

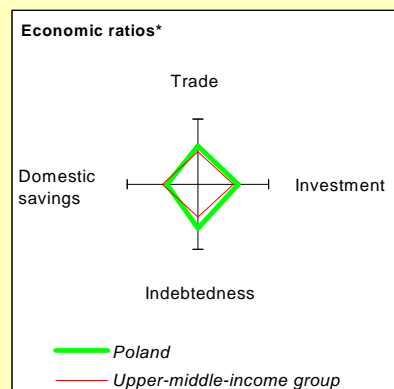
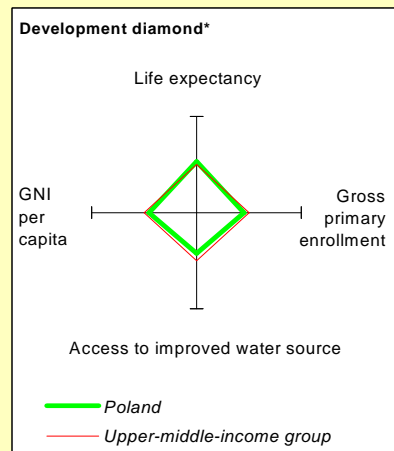
Domestic savings

Investment

Indebtedness

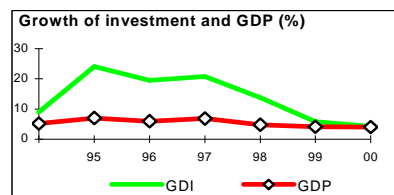
Poland

Upper-middle-income group



STRUCTURE of the ECONOMY

	1980	1990	1999	2000
(% of GDP)				
Agriculture	..	8.3	3.9	..
Industry	..	50.1	35.8	36.2
Manufacturing	21.0	..
Services	..	41.6	60.2	..
Private consumption	..	48.0	63.5	64.0
General government consumption	..	19.3	16.5	16.4
Imports of goods and services	..	21.5	32.5	34.4
(average annual growth)	1980-90	1990-00	1999	2000
Agriculture	..	-0.1	-1.7	..
Industry	..	4.2	3.0	6.8
Manufacturing
Services	..	4.1	7.3	..
Private consumption	..	5.4	5.8	2.6
General government consumption	..	3.2	1.0	1.8
Gross domestic investment	..	10.6	5.9	4.2
Imports of goods and services	..	15.8	1.0	-2.5



Note: 2000 data are preliminary estimates.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

PRICES and GOVERNMENT FINANCE

Domestic prices

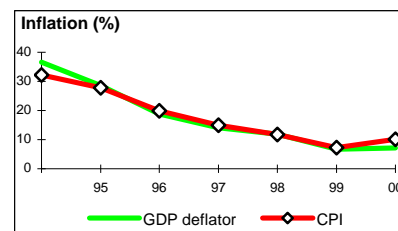
(% change)

	1980	1990	1999	2000
Consumer prices	7.3	10.1
Implicit GDP deflator	6.7	7.2

Government finance

(% of GDP, includes current grants)

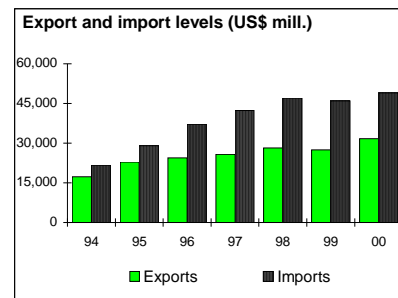
Current revenue	..	..	20.5	19.8
Current budget balance	..	..	-0.8	-1.2
Overall surplus/deficit	..	..	-2.0	-2.2



TRADE

(US\$ millions)

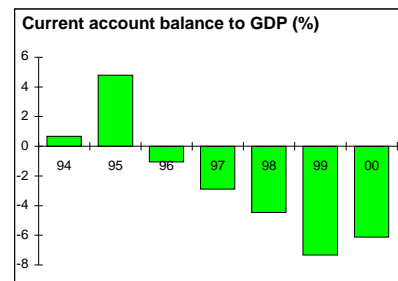
	1980	1990	1999	2000
Total exports (fob)	..	14,322	27,407	31,651
Food and live animals	2,328	2,377
Machinery and transport equipment	8,305	10,858
Manufactures	12,715	13,680
Total imports (cif)	..	9,528	45,911	48,940
Food and live animals	2,534	2,561
Mineral fuels, lubricants and related products	3,303	5,307
Capital goods, machinery, and transport eq.	17,564	18,136
Export price index (1995=100)	..	34	141	143
Import price index (1995=100)	..	37	139	146
Terms of trade (1995=100)	..	90	102	98



BALANCE of PAYMENTS

(US\$ millions)

	1980	1990	1999	2000
Exports of goods and services	29,657	31,772
Imports of goods and services	45,661	46,624
Resource balance	-16,004	-14,852
Net income	-793	-761
Net current transfers	1,604	1,680
Current account balance ¹	-11,558	-9,946
Financing items (net)	11,726	10,621
Changes in net reserves	-168	-675



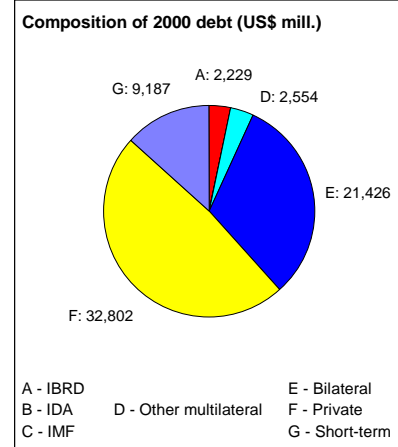
Memo:

Reserves including gold (US\$ millions)	..	..	25,494	27,466
Conversion rate (DEC, local/US\$)	..	0.9	3.9	4.2

EXTERNAL DEBT and RESOURCE FLOWS

(US\$ millions)

	1980	1990	1999	2000
Total debt outstanding and disbursed	..	49,366	64,890	68,198
IBRD	..	55	2,185	2,229
IDA	..	0	0	0
Total debt service	..	966	8,374	9,955
IBRD	..	1	317	321
IDA	..	0	0	0
Composition of net resource flows				
Official grants	221	260
Official creditors	..	-77	-441	-1,108
Private creditors	..	-18	2,461	-2,755
Foreign direct investment	6,348	9,338
Portfolio equity	1,058	894
World Bank program				
Commitments	..	1,081	303	197
Disbursements	..	54	247	349
Principal repayments	..	0	188	199
Net flows	..	54	59	150
Interest payments	..	1	-95	122
Net transfers	..	54	-70	28



Russian Federation

POVERTY and SOCIAL	Russian Federation	Europe & Central Asia	Lower-middle-income
2000			
Population, mid-year (<i>millions</i>)	145.5	475	2,046
GNI per capita (<i>Atlas method, US\$</i>)	1,660	2,010	1,140
GNI (<i>Atlas method, US\$ billions</i>)	241.6	956	2,327
Average annual growth, 1994-00			
Population (%)	-0.3	0.1	1.0
Labor force (%)	0.0	0.6	1.3
Most recent estimate (latest year available, 1994-00)			
Poverty (% of population below national poverty line)	30	..	..
Urban population (% of total population)	73	67	42
Life expectancy at birth (<i>years</i>)	66	69	69
Infant mortality (<i>per 1,000 live births</i>)	15	21	32
Child malnutrition (% of children under 5)	3	..	11
Access to an improved water source (% of population)	99	90	80
Illiteracy (% of population age 15+)	1	3	15
Gross primary enrollment (% of school-age population)	109	100	114
Male	109	101	116
Female	108	99	114

Development diamond*

Life expectancy

GNI per capita

Gross primary enrollment

Access to improved water source

Russian Federation

Lower-middle-income group

KEY ECONOMIC RATIOS and LONG-TERM TRENDS	1980	1990	1999	2000	
GDP (<i>US\$ billions</i>)	..	1,100.1	193.2	251.1	
Gross domestic investment/GDP	..	30.1	14.8	17.2	
Exports of goods and services/GDP	..	18.2	43.9	45.9	
Gross domestic savings/GDP	..	30.3	31.2	38.2	
Gross national savings/GDP	25.3	33.8	
Current account balance/GDP	10.6	16.7	
Interest payments/GDP	1.1	1.1	
Total debt/GDP	90.6	64.5	
Total debt service/exports	11.5	9.6	
Present value of debt/GDP	67.7	..	
Present value of debt/exports	153.5	..	
	1980-90	1990-00	1999	2000	2000-04
(<i>average annual growth</i>)					
GDP	..	-4.8	5.4	8.3	4.3
GDP per capita	..	-4.6	5.8	8.9	4.7
Exports of goods and services	..	-0.9	-1.8	4.3	2.0

Economic ratios*

Trade

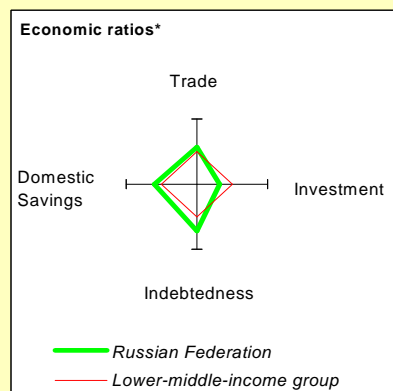
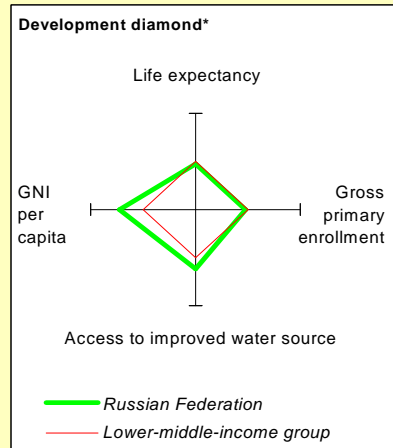
Domestic Savings

Investment

Indebtedness

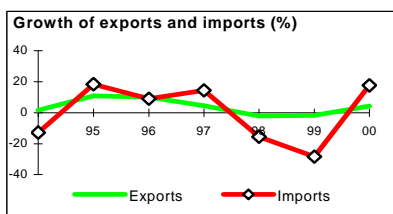
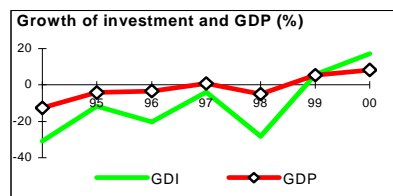
Russian Federation

Lower-middle-income group



STRUCTURE of the ECONOMY

	1980	1990	1999	2000
(% of GDP)				
Agriculture	..	16.6	7.4	7.1
Industry	..	48.4	35.5	38.7
Manufacturing
Services	..	35.0	57.1	54.2
Private consumption	..	48.9	52.1	47.9
General government consumption	..	20.8	16.7	13.8
Imports of goods and services	..	17.9	27.4	24.8
	1980-90	1990-00	1999	2000
(average annual growth)				
Agriculture	..	-6.0	10.7	5.0
Industry	..	-7.6	9.8	11.8
Manufacturing
Services	..	-3.3	2.2	2.9
Private consumption	..	2.0	-1.6	8.2
General government consumption	..	0.3	3.0	12.9
Gross domestic investment	..	-18.4	5.7	17.3
Imports of goods and services	..	-7.4	-28.4	17.5

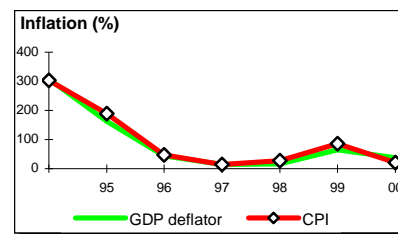


Note: 2000 data are preliminary estimates.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

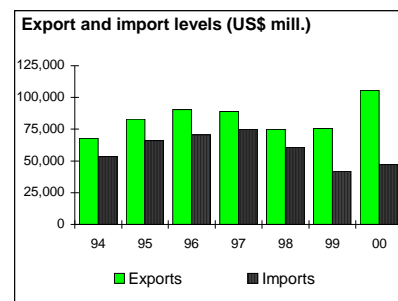
PRICES and GOVERNMENT FINANCE

	1980	1990	1999	2000
Domestic prices				
(% change)				
Consumer prices	..	5.6	85.7	20.8
Implicit GDP deflator	..	15.9	64.7	37.1
Government finance				
(% of GDP, includes current grants)				
Current revenue	33.5	37.1
Current budget balance	1.3	7.8
Overall surplus/deficit	-3.6	2.9



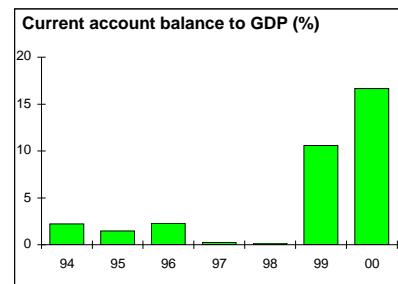
TRADE

	1980	1990	1999	2000
(US\$ millions)				
Total exports (fob)	75,666	105,566
Crude oil	14,101	25,319
Natural gas	11,352	16,644
Manufactures	8,500	10,000
Total imports (cif)	41,757	47,192
Food	8,100	7,400
Fuel and energy	419	471
Capital goods	10,500	10,600
Export price index (1995=100)	82	112
Import price index (1995=100)	85	82
Terms of trade (1995=100)	96	136



BALANCE of PAYMENTS

	1980	1990	1999	2000
(US\$ millions)				
Exports of goods and services	84,738	115,200
Imports of goods and services	52,970	62,290
Resource balance	31,768	52,910
Net income	-11,900	-11,154
Net current transfers	542	90
Current account balance	20,410	41,846
Financing items (net)	-16,583	-23,432
Changes in net reserves	-3,827	-18,415

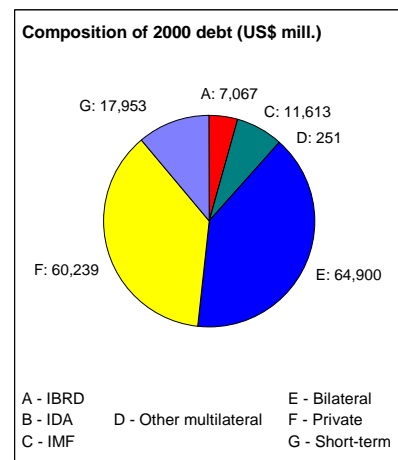


Memo:

Reserves including gold (US\$ millions)	..	..	12,456	27,972
Conversion rate (Official, local/US\$)	..	..	24.6	28.1

EXTERNAL DEBT and RESOURCE FLOWS

	1980	1990	1999	2000
(US\$ millions)				
Total debt outstanding and disbursed	175,103	162,023
IBRD	6,809	7,067
IDA	0	0
Total debt service paid	9,761	11,165
IBRD	520	679
IDA	0	0
Composition of net resource flows				
Official grants
Official creditors	577	-688
Private creditors	-176	-330
Foreign direct investment	1,348	-347
Portfolio equity	-200	-100
World Bank program				
Commitments	430	183
Disbursements	538	540
Principal repayments	150	267
Net flows	388	274
Interest payments	370	412
Net transfers	18	-139



Additional Annex 11: Public Participation Summary

EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

1. *Participatory Approach.* Experience from a number of regional GEF projects has demonstrated the importance of broad based stakeholder participation for successful project development and implementation. This is especially critical given the Project's long-term goal for regional engagement for ecosystem-based monitoring, assessment, and management. The Project preparation process engaged regional, national and local stakeholders to identify the key issues within the context of the Project, and design activities to support improved social, economic and environmental conditions in the Baltic Sea region.
2. *Social Issues in the Baltic Sea Region.* There are two major social issues inherently addressed in the Project design. First, the current social welfare system in the recipient countries provides little support to the farming, coastal and fishing communities. The economic welfare of these communities has in turn suffered the greatest during the period of economic transition. Subsequently, this affected other sectors such as local businesses and local labor. A second issue is attributed to the deteriorated state of the Baltic Sea ecosystem. Impacts from pollution, degradation of coastal areas and over fishing have increasing effects on the regional economy, including the potential development of coastal tourism. Decreased quality of fish stock results in reduced incomes in the fishing community, while conflicts between commercial fisheries and subsistence fishing and between fisherman and fisheries management have increased transboundary tensions between countries.
3. *Project Stakeholders.* The primary stakeholders and beneficiaries include (i) national and local governments, and agricultural, coastal and fishing communities in the participating countries; (ii) local sector interests (businesses, fisheries, agriculture, tourism, shipping), and (iii) community based organizations and local nongovernmental organizations. Secondary stakeholders include (i) regional partners and cooperating bodies: HELCOM, IBSFC, ICES; and (ii) international partners: EU, other member governments of HELCOM, cooperating international financial institutions (NEFCO, World Bank), and regional nongovernmental organizations. The Project reflects the lessons learned from stakeholder engagement in the Baltic Sea in the work of HELCOM, as well as previous Bank supported projects, donor supported demonstration projects;* and technical assessments done by the three cooperating international bodies.
4. The stakeholders have been actively involved in the project preparation process. The Project Coordinator has engaged the recipient country participants through workshops and meetings, and individual consultations. The Baltic Sea Regional Project Core Group has actively incorporated representatives from regional programs and initiatives in meetings, collaborated with technical specialists from the region, helped integrate the land, coastal and open sea principles in the project design.
5. *Experience from the JCP.* The Project builds on these lessons and the JCP priority activities, which have a broad-based commitment from the wide range of stakeholders in the region. There have been numerous regional meetings whose recommendations provided the parameters and criteria for

transboundary cooperation. Noteworthy among these are the Vilnius Recommendations, which are the outcome of a Project related regional meeting on the management of transboundary waters. These recommendations have provided the basis for the Project design that promotes an integrated approach towards watershed, coastal and marine environments. They included an evaluation of lessons learned from regional cooperation to date in the Baltic Sea region, and noted the importance of a spirit of cooperation for managing transboundary waters and formation of broad based regional partnerships for successful program development and operation.

6. *Component 1 – Large Marine Ecosystem Management Activities - Participation.* During Project preparation, the Chairman of the Core Group individually met with recipient country technical specialists who are responsible for reporting to ICES and HELCOM. These specialists are familiar with the issues in the region, and knowledgeable on fisheries matters in the Baltic Sea. During the Component 1 LME Workshop (Riga, July 11-14) the individual Country Proposals were transformed into an integrated regional ecosystem-based approach to coastal and open sea management. The proposed activities will facilitate strengthened cooperation between the local and regional decision-makers on resource management issues. WWF met with local coastal and fishing communities who shared their views and concerns about the current state of coastal management and fisheries and their effects on their livelihood and welfare.

7. *Component 2 - Land and Coastal Management Activities - Participation.* The Project's agricultural activities build on the institutional and technical work undertaken by the Swedish supported BAAP program, and coordinate with the GEF supported Rural Environmental Protection Project in Poland. Farmers in the selected demonstration watersheds have been consulted concerning Project activities that build upon those demonstrated earlier under the first phase of BAAP. The approach to be used in the Project is based on the BAAP model and is interactive and very participatory with local farm communities, authorities and the agricultural education system in the region. Through individual consultation, participating farmers and the extension services involved in the BAAP project provided their perspective and their recommendations were incorporated into the Project design. Local BAAP extension services currently engaged in the farm communities also provided institutional and implementation recommendations.

8. Within the Project design two NGOs, the Agriculture Advisory Services (AAS), and Farmers Interest Organizations (FIOs), will interact directly with the farmers, and launch the educational programs on a national level with the purpose of disseminating the Project message to a broader public. The programs will be interactive, providing information to the farming community while gaining experience from the lessons learned. This will be a participatory monitoring approach as part of a social assessment, to learn best methods and determine impact. The AAS and FIOs will also provide input for the design of the credit line under development by NEFCO. The Project will support local institutional strengthening of the AAS and FIOs to continue providing technical assistance after the Project is complete. Farms located within the coastal zone will be engaged in the coastal zone management activities, implemented jointly with Component 1.

9. The WWF will coordinate a series of locally based management demonstration activities for coastal zone management. These activities will be based on previously developed management plans that were prepared with the active participation of national, country and local governments, community organizations and local nongovernmental organizations. To address local social and economic issues, the Project will provide opportunities for agricultural, coastal and fishing communities to benefit from small-scale investments, and strengthen the capacity of the local fishing associations to contribute to the decision-making process. The communities' input has been considered in the coastal zone management

activities and adapted to link with other activities to meet Project objectives. Pilot coastal zone management activities will involve stakeholder involvement in sustainable community development and environmental conservation, and support small-scale investments to improve the local standard of living for these communities. This effort will include the involvement of the local decision makers, community organizations, local nongovernmental organizations, and the business community, with support from WWF.

10. *Component 3- Institutional Strengthening and Regional Capacity Building - Participation.* Component 3 will facilitate the strengthening of local and regional institutions and build capacity for a holistic approach to ecosystem-based management of the Baltic Sea resources. The valuation of ecosystem goods and services will be a useful tool for local and regional decision-makers, the business community, and other stakeholders to understand the implications of management decisions and practices. The WWF will also be involved in Project implementation and will conduct a training program for community stakeholders and local nongovernmental organizations. The Project budget includes funds for a systematic social assessment to evaluate the social impacts from the component activities and outreach program, to provide potential modifications to the Project design as needed, the social assessment is an activity with Component 4.

11. *Institutional Arrangements and Monitoring and Evaluation.* The WWF, a member of the BSRP Core Group, has been engaged in the region and its interest and involvement will ensure the Project is successfully implemented and achieves the projected social benefits. For component specific activities, the activity Coordinator, and Local Project Managers will be involved with the fishing and farming community. They will be responsible for daily implementation and monitoring and evaluation, and will report to the BSRP Steering Committee. HELCOM will have overall monitoring responsibility of the Project. The social assessment will be included as part of the monitoring and evaluation process.

12. *Outcomes and Indicators.* While there has been no systematic social assessment during Project preparation, active engagement of local stakeholders during preparation has been positive. A social assessment process will be conducted during Project implementation, at a time when it will be easier to gauge the progress of implementation and adapt activities for optimal results. The Project will facilitate the strengthening of regional, national and local capacity. It supports efforts to find solutions to problems and conflicts between recreation and commercial fisheries, fisherman and fisheries managers, and transboundary issues. Participating BAAP farm families noted increases in farm productivity and income, improved drinking water quality, and subsequent environmental improvements from improved manure storage. Though the Project's basic objective is to create some preconditions for better management of the Baltic Sea ecosystem, it is implicit that this will improve the social and economic welfare in the region because it will be done through activities that directly engage and benefit people in the area and help protect their long-term interests. A summary of the key socially oriented performance indicators, detailed in Annex 1.

* Baltic 21 Programme, Phare supported ICZM project in the region, USEPA-PAWQP agricultural management project.

Additional Annex 12: Transboundary Analysis

EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

Transboundary Analysis

Introduction

1. *Baltic Sea Environment.* The Baltic Sea is the largest body of brackish water in the world. It has thirteen major watersheds and a very narrow and shallow linkage with the North Sea. This restricted linkage contributes to infrequent flushing of the Baltic Sea's waters. During this century, major inflows of replenishing saline water have occurred approximately every 11 years but have recently been less frequent. The last major inflow of saline water took place in 1976. The bottom water can remain stagnant for long periods. Thus there is a distinct layering of water characterized by surface waters of low salinity and a warm top layer and deep water with higher salinity. As late as 1950 the Baltic Sea was still regarded as environmentally "healthy;" its ecological deterioration has been caused in recent years by an increase of point source industrial and non-point source agricultural pollutants, degradation of the coastal zone and non-sustainable use of living marine resources. The natural vulnerabilities have been seriously aggravated by anthropogenic causes of environmental change and degradation. These problems of the Baltic Sea are transboundary in nature, and difficult to address on an individual country basis.

2. *Strategic Action Program.* The need to address the management of agricultural inputs into international waters, improve coastal zone management and adopt sustainable management of living marine resources has been highlighted in the "Baltic Sea Joint Comprehensive Environmental Action Program (JCP)" which was prepared under the coordination of the Helsinki Commission by a broad based task force. The JCP was adopted as the strategic action program for the region by the Ministers of Environment in 1992 and was updated and strengthened in 1998. HELCOM prepares assessments of transboundary trends and impacts in the form of Pollution Load Compilations and Periodic Assessments which support implementation of the JCP. The JCP recognizes the need to use an ecosystem-based management approach that recognizes the freshwater, coastal and marine resources as a management continuum. This Project responds to the need to address regional transboundary issues and to establish a coordinated approach to ecosystem-based management, in order to alleviate burdens from anthropogenic impacts and meet the objectives of the JCP.

3. *Vilnius Recommendations.* As a contribution to the JCP and to support Project preparation, the Government of Germany and World Bank jointly sponsored an International Round Table on "Transboundary Water Management of the Baltic Sea Region" which resulted in the "Vilnius Recommendations." These recommendations—reflecting the views and experience of regional organizations, national and local governments, international financial institutions and nongovernmental organizations—emphasized the need for sustained preventive and curative actions to achieve environmental improvements in both the short and long term. They noted the importance of cooperating at the regional, national and local levels to address the diversity of transboundary water management problems in the Baltic Sea region.

Transboundary Issues

4. *Living Marine Resources Management.* The Baltic Sea and its catchment area have a range of ecosystems and biological diversity. The brackish waters of the Baltic Sea contain a mixture of marine and freshwater species. The coastal areas serve as spawning, nursery, and feeding areas for several species of fish. Baltic 21 statistics have indicated that the fishery industry contributes significantly to regional and local economy, and sustenance fishing is critical to the social and economic welfare of the coastal communities in the eastern Baltic. Major coastal and marine transboundary issues prevail due to current land, coastal and marine practices; they include: (i) changes in the productivity of the near coastal and offshore waters from eutrophication; (ii) unsustainable condition of fish stock yields; and (iii) degraded condition of coastal water quality from pollution, harmful algal blooms, multiple ecological disturbances, and contaminant loading.

5. *Coastal Zone Management.* The coastal zone of the Baltic Sea is physically diverse, of high economic importance and is under a range of development pressures. These areas include a number of important shared water bodies in the eastern Baltic Sea that include the Gulf of Finland, Gulf of Riga, Kursiu Lagoon, Vistula Lagoon/Kaliningrad Lagoon and Oder/Odra Lagoon. Studies by HELCOM, Baltic 21, national governments, VASAB 2010 and WWF have emphasized the importance of development and implementation of integrated management plans for these areas. Important coastal zone management issues include: (i) rapid changes in land use in urban and industrial areas associated with economic growth and restructuring; (ii) pressure for incremental development activities, especially related to tourism and recreation; (iii) direct and indirect degradation of coastal lagoons and wetlands from waterborne pollution, filling, and drainage; and (iv) conversion and destruction of fragile coastal habitats.

6. *Land Management.* Agriculture is the largest anthropogenic source of non-point source nutrient input to the Baltic Sea. HELCOM estimates that non-point source pollution from agriculture contributes 30-35 percent of the current nitrogen, and 10-15 percent of the current phosphorus loading entering the Baltic Sea, as well as pesticide residues. Within the Baltic Sea catchment area, approximately 40 percent of the land is in agriculture. In addition, the agricultural sector is traditionally conservative and it is often difficult to introduce innovative, environmentally responsible practices if the benefit is not immediately visible to the farmer. This has been a particular problem in the countries in economic transition in the eastern and southern portions of the Baltic Sea drainage basin, where the restructured agriculture sector has had to address a diversity of issues beyond environmental management. Reports by HELCOM and Baltic 21 have identified and reported on priority areas where poor agricultural practices have contributed to environmental degradation which include: (i) increased eutrophication from improper storage and application of animal waste and poor agricultural land management practices contributing to non-point source nutrient run-off to local tributaries, and (ii) lack of understanding, resources, and capacity to utilize environmentally responsible agriculture practices. Table A identifies the regional threats and issues from non-point source pollution and a transboundary analysis.

7. *Eutrophication.* HELCOM has identified eutrophication from non-point source nutrients and organic matter as a top priority transboundary water problem. It is caused by excessive growth of biomass stimulated by the large influx of nitrogen and phosphorus compounds. The common symptoms of eutrophication are increased plant biomass in the form of algae, oxygen deficiency in water bodies, formation of hydrogen sulfide and remineralization of the biomass. These processes disrupt the balance of freshwater, coastal and open sea ecosystems and cause changes in their structure and function. Impacts associated with eutrophication in Baltic coastal and open sea waters include: (i) a shift in the composition of marine vegetation in many coastal areas, (ii) repeated large scale algal blooms, (iii) disrupted reproductive cycles of some fish species, (iv) declines and shifts of the fish communities—decreases in

abundance of commercially more important fish species in some fish stocks and increases in others, (v) an overall change in species composition, and (vi) a restriction of the depth range for the vegetation zone.

8. *Algal Blooms.* Toxic algal blooms have been found in the entire Baltic Sea. The large-scale blooms have been attributed to the high nutrient load in the Baltic Sea, with exceptionally sunny weather serving as an effective catalyst for starting the blooms. For example, there were massive blue-green algal blooms in the summer of 1997, and according to studies by the Finnish Institute for Marine Research, the surface accumulations of blue-green algae during this period were the most extensive ever recorded in the whole Baltic Sea area. Large amounts of blue-green algal biomass drifted ashore. In Helsinki, these blue-green algal blooms forced the city to close many of its beaches for most of the swimming season. Several cases of cyano-bacterial toxicosis were reported in humans and animals in Finland. This event caused widespread demands from politicians and the public for intensified action to reduce nutrient loading to the Baltic Sea from all types of sources to avoid such large-scale transboundary impacts.

9. *Social and Economic Issues.* There are a number of factors that impact local and regional social and economic conditions due to changes in ecosystem health, productivity, and biodiversity. The changing species composition, over fishing and poor management of fish stocks are generally the main causes for depleted viable fish stock in the Baltic Sea. This depletion, together with reduced market value for fish caught impacts the fishing community, primarily in countries in economic transition, where fishery infrastructure is less developed, and fishing may be the sole source of income. Where recreational use of the sea is popular, eutrophication and poor hygienic conditions cause unpleasant consequences in coastal waters and beaches. Summer algal blooms have periodically necessitated the closing of many bathing beaches throughout the region with an adverse affect on their recreational use and tourist value.

Transboundary Challenges

10. *Adoption of an Integrated Approach to Management.* The objective of the JCP is the restoration of the ecological balance of the Baltic Sea. This requires undertaking on a long-term basis a series of complementary actions to improve the management of transboundary land, coastal and open sea resources. The Project addresses this concern by supporting three cooperating international bodies—HELCOM, IBSFC and ICES—to work with the recipient countries to adopt and apply an ecosystem-based approach to environmental management. This approach involves a range of interventions that address technical, socio-economic and management issues that are central to improving the management of shared resources between countries. Table B evaluates these threats and issues within the context of the LME framework.

11. *Challenges in Integrated Management of Coastal and Open Sea Waters.* The countries in the Baltic Sea region vary in their economic, technical and political capacities. There is a disparity in local regional management of shared living marine resources. Effective management regimes include a coordinated implementation of coastal and open sea ecosystem-based management practices, and incentives for responsible fishing that maintain fishing at a level consistent with productive fisheries. The proposed Project will upgrade local capacity by introducing innovative methodologies for monitoring and assessment of living resources in coastal and open sea waters. An outcome will be the introduction and implementation of ecosystem-based regional, national and local management of these shared resources.

12. *Challenges in Coastal Management Activities.* The effective management of coastal areas requires a commitment to cooperation by a wide range of stakeholders, recognition that management will occur at various levels and a willingness to use participatory approaches. Demonstration activities provide an opportunity to make coastal zone management an integral part of the planning process used by the cooperating countries. All actions will be taken in areas that are shared transboundary waters and

common activities will be used to transfer experience between the demonstration areas. The Project will support expanded cooperation between national and local governments, demonstrate low cost activities that can be replicated elsewhere and involve community based organizations and local nongovernmental organizations.

13. *Challenges in Land Management Activities.* As opposed to point source pollution, which can be targeted for remediation, non-point pollution is caused by a large number of dispersed sources and requires a regional approach. The proposed Project, through demonstration activities, will test mechanisms and use lessons learned from the BAAP pilot activities to provide farmers with incentives and the level of support needed to effectively implement environmentally responsible practices to reduce non-point source pollution from agriculture to the coastal and open sea waters of the Baltic Sea. Successful implementation of the demonstration activities can then be expanded to other watersheds, and the Code of Good Agricultural Practices can be promoted on both a local and national level.

Table A: Threats from Non-Point Source Pollution
(HELCOM-JCP, 1998)

Regions of the Baltic Sea	Salinity and Oxygen	Nutrients	Plankton
Baltic Proper	<ul style="list-style-type: none"> o Eutrophication led to repeated oxygen depletion, areas of insufficient oxygen* conditions for macrofauna in the last 25 years, in central Baltic Proper o Temperature increases in the deep layers 	<ul style="list-style-type: none"> o Present estimates indicate that the total nutrient supply to the Baltic Sea (and the Sound) is about 730,000 tons nitrogen and 50,000 tons of phosphorus per year. o High concentrations of nitrogen and phosphorus affect oxygen conditions in deep sections of central Baltic proper 	<ul style="list-style-type: none"> o Data suggest primary production last 25 years in the Kattegat. o Phytoplankton biomass and sedimentation decreases oxygen
Eastern Gotland Basin	<ul style="list-style-type: none"> o Water stagnation in deepest areas have decreased oxygen and increased hydrogen sulfide levels. 		
Bothnian Sea	<ul style="list-style-type: none"> o In late summers of the 1980s, eutrophication led to repeated oxygen depletion 		
Gulf of Bothnia and Bothnia Bay	<ul style="list-style-type: none"> o Water is exchanged through Åland Sea; the inflows are low-salinity and low-density surface waters from the Baltic Proper. 	<ul style="list-style-type: none"> o High phosphate levels have remained the same since 1978 	
Kattegat	<ul style="list-style-type: none"> o In the 1980s, eutrophication led to repeated oxygen depletion 	<ul style="list-style-type: none"> o Regionally high levels of phosphorus and nitrogen 	<ul style="list-style-type: none"> o Intense algal blooms and eutrophication
Gulf of Riga		<ul style="list-style-type: none"> o Regionally high levels of phosphorus and nitrogen 	
Gulf of Finland			<ul style="list-style-type: none"> o Intense algal blooms and increasing eutrophication frequently
The Sound			<ul style="list-style-type: none"> o Intense algal blooms and increasing eutrophication frequently
Belt Sea			<ul style="list-style-type: none"> o Intense algal blooms and increasing eutrophication frequently

* Low oxygen 100,000 km² with less than 2ml/oxygen/liter in bottom waters.

Table B: Overview of Transboundary Issues in the Baltic Sea Ecosystem

LME Module and Transboundary Issues	Causes	Impact	Uncertain Risks	Transboundary Issues
Productivity - Harmful eutrophication and algal blooms - Environmentally insensitive agriculture practices - Changing state of ecosystem	- Nutrient loading in coastal waters from anthropogenic land and marine activities - Changes in living resource biodiversity - Introduction of exotic species	- Public health concerns - Poisoning and mortality of human consumers of marine organisms - Decreased recreational use of marine and coastal waters	- Increase of incidences of algal blooms - Continued impacts from anthropogenic sources - Expansion of exotic species	- Agricultural watersheds cross national boundaries - Occurrence of algal blooms in coastal and open sea waters - Migration of species across national boundaries
Ecosystem Health - Deterioration of coastal and open sea waters - “Hot Spot” pollution from point and non-point source pollution - Degradation of coastal lagoons and wetlands	- Inputs from point and non-point sources (agriculture, industry, municipalities) - Lack of policies and enforcement for point source discharges - Weak coastal zone planning	- Public health concerns - Ecosystem health and resilience - Changes in species dominance - Decreased area of wetlands due to conversion in watersheds and coastal areas - Reduced functioning of coastal lagoons/wetlands as filters	- Cause-effect relationship - Continued degradation of water quality - Continued degradation of watersheds, coastal lagoons and wetlands - Future stress caused by future demands for land and water	- Impacts from transboundary pollutants - Reduced ability to use water resources due to quality problems - Decline in aquatic habitats and species in watersheds, coastal and open sea areas
Fish/Fisheries - Non-optimal harvesting of living resources (e.g. over fishing, dumping of by-catch) - Reduction of economically valuable fish stock (cod) - Threats to vulnerable species - Vulnerability of spawning habitats	- Fishing over capacity - Non-sustainable utilization of living resources - Reduction of prey through over fishing - Competition for space and prey - Lack of collaborative monitoring, assessment, and management	- Ecosystem dynamic change - High by-catch and undersize catch - Fisheries impacting productivity cycle - Pressure on selected habitats from fishing practices - Threats to biodiversity - Opportunities for exotic species	- Irreversible ecosystem change - Collapse of commercially important stocks - Stability of key habitats and their ability to respond to stress - Expansion of exotic species	- Most harvested open sea living resources extend beyond national borders - Coordination with EU on fishery issues - Effective ways to share and manage common resources - Conservation of key areas of coastal and open sea habitat
Socioeconomic - Continued exhaustive fishing practices - Reduced used of coastal and open sea waters, affecting local income	- Continued over fishing - Changes in open sea productivity - Eutrophication and pollution impacts farming coastal communities, and living open sea resources	- Variable and uncertain market - Loss of fish and shellfish markets - Threats to recreational fishing - Decrease in coastal tourism	- Loss of national revenues - Decrease in tourism - Unemployment increase in the fishing sector - Lower standard of living	- Regional, national and local impacts from these problems - Reduced access to resources - Reduced opportunities for income growth and employment
Management - Lack of harmonized cooperation between the three international bodies (HELCOM/IBSFC/ICES) - Unequal distribution of capacity in the Baltic Sea region - Lack of local capacity to monitor and assess environmental variability	- The three international bodies have different mandates - Limited inter country exchange - Limited research and laboratory capacity - Low salaries - Lack of knowledge of decision makers concerning ecosystem issues and management	- Inconsistent management of Baltic resources - Imbalances within the region - Limited cooperation between institutions - Inadequately informed decision makers - Limited public understanding of issues and complex choices	- Degradation of watersheds, coastal areas and marine resources due to inconsistent management - Commitment to support ecosystem management - Level of political will to make changes in resource management - Uncertainty over future economic conditions	- Information needs to be coordinated between countries in the Baltic Sea region - Measures need to be taken to harmonize monitoring, assessment and management between regional bodies, national governments and local governments - Partnerships are needed to share knowledge and experience across borders

Additional Annex 13: Environmental Management Plan

EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

A. OVERVIEW

1. **Introduction.** The development objective of the Baltic Sea Regional Project (BSRP), a Global Environment Facility (GEF) supported project, is to facilitate the restoration of a sustainable ecosystem, improve coastal zone management and reduce agricultural non-point source pollution through the introduction of ecosystem-based approaches for land, coastal and open sea environmental management. Project activities support the long-term process for restoration of the ecological balance of the Baltic Sea, which is the goal of the “Baltic Sea Joint Comprehensive Environmental Action Program” (JCP) (1992, 1998) prepared under the coordination of HELCOM by a broad based task force. The project will be implemented by the Helsinki Commission (HELCOM) in cooperation with the International Baltic Sea Fisheries Commission (IBSFC) and International Council for the Exploration of the Sea (ICES), and will support field based activities in Estonia, Latvia, Lithuania, Poland and Russian Federation. The BSRP focuses on environmental restoration and includes a series of complementary measures to improve environmental management in agriculture, the coastal zone and the open sea environment. Project activities will have positive environmental impacts on the Baltic Sea and improve social conditions in farming, fishing and coastal communities. The project will assist participating countries to meet their commitment to the Helsinki Convention and support Estonia, Latvia, Lithuania, and Poland in meeting their obligations under the European Union accession process.

B. PROPOSED PROJECT

2. **Three Phase Project.** The BSRP will be implemented in three complementary phases over a period of six years. The overall estimated cost for the BSRP is US\$36.00 million, for which the GEF Council has approved US\$18.0 million and the remaining cost will be covered by support from cooperating governments, bilateral donors and international NGOs. The Phase 1 Project has a total budget of US\$12.12 million, including US\$5.5 million from GEF, and will be implemented over a three-year period from 2002 to 2005. The project will ensure that, by year 2007, an ecosystem-based approach for sustainable use of Baltic Sea resources has been demonstrated at the field level and is being adopted for management actions by cooperating international bodies, national governments, local organizations and NGOs). These three phases are as follows:

- ***Phase 1. The Current Project - Introduction of the Ecosystem Approach (2002-2005).*** Establishment of the regional framework for introduction of the ecosystem approach; mobilization of partners in management of land, coastal and open sea marine resources; and initial activities for land and coastal management.
 - ***Phase 2. Demonstration of the Ecosystem Approach (2005-2007).*** Undertaking cooperative activities for assessment and management of coastal and open sea marine resources; expansion of activities for land and coastal management; and joint activities for linkage of land, coastal and open sea management programs.
 - ***Phase 3. Application of the Ecosystem Approach (2007-2008).*** Identification of next steps by the cooperating parties for expanded application of the ecosystem approach for land, coastal and open sea management; completion of field based management and demonstration activities; and preparation of evaluation and assessment studies.
3. **Project Components.** The project has four components that include the following activities:
- ***Component 1-Large Marine Ecosystem Management Activities***

- Activity 1 - Strengthening Institutional and Technical Capacity
- Activity 2 – Operationalize Monitoring and Assessment Surveys in the Eastern Baltic Sea
- Activity 3 - Cooperative Local and Regional Ecosystem Evaluations and Assessments
- Activity 4 - Demonstration Activities.
- ***Component 2-Land and Coastal Management Activities***
 - Activity 1 - Agricultural Interventions
 - Activity 2 - Monitoring and Assessment of Non-Point Source Pollution
 - Activity 3 - Land-Based Coastal Zone Management
 - Activity 4 – Baltic Sea Regional Environmental Assessment Network (RAN).
- ***Component 3-Institutional Strengthening and Regional Capacity Building***
 - Activity 1 - Regional Capacity Building
 - Activity 2 - Regional Socioeconomic Assessment.
- ***Component 4-Project Management***
 - Activity 1 - Project Management.

Projected expenditures, by component, during Phase 1 are planned as follows: Component 1 - \$5.62 million, Component 2 - \$4.99 million, Component 3 - \$0.15 million and Component 4 - \$1.36 million. The scope of activities under Component 3 will expand during the later phases of the overall BSRP.

4. Component 3 will support local and regional capacity building and institutional strengthening activities and Component 4 will support project management activities. Neither of these components are anticipated to have any adverse environmental or social impacts and are not covered by specific mitigation or monitoring activities under the EMP.

C. ENVIRONMENTAL AND SOCIAL REVIEW

5. **Environmental and Safeguards Screening.** The project has been placed in environmental screening category “B” under the provisions of World Bank Operational Policy 4.01, “Environmental Assessment” and in safeguards classification category “S2”. The project supports a series of environmental management measures at the regional, national and local levels in five cooperating countries; it will have limited adverse impacts that can be addressed as part of the design, implementation and operational process for the concerned activities. The applicability of World Bank Operational Policy 7.50, “Projects on International Waterways” was reviewed with the Legal Department of the World Bank, and it was deemed not to be applicable to the project. Building on the approach used in the Rural Environmental Protection Project in Poland, the project provides funds to include a systematic social assessment process to evaluate the social impacts from component activities on a “rolling basis” during project implementation. This is complemented by an outreach program to obtain input from cooperating parties and beneficiaries that can be used to develop potential modifications to the project design as needed.

6. **Environmental Management Plan.** The Environmental Management Plan (EMP) for the BSRP summarizes the recommended design measures, construction supervision methods and monitoring actions to minimize and/or avoid the limited potential short- and long-term impacts of activities under Components 1 and 2. It identifies environmental impacts related to the management of laboratory wastes,

salmon river restoration measures, construction of small-scale civil works for on-farm nutrient management, installation of monitoring stations, and coastal zone management activities. These potential impacts and their associated mitigation and monitoring actions are described below and summarized in Table A, “Mitigation, and Monitoring Actions.” Attachment 1 contains the Integrated Safeguards Data Sheet (ISDS) for the project.

D. PROJECT SUPPORTED ACTIVITIES – PHASE 1

7. **Background.** In general, the Baltic Sea is one of the most intensively monitored; however, the coverage, quality and reliability of regional, national and local level data has remained uneven. Over the last decade, Estonia, Latvia, Lithuania, Poland and Russian Federation have had significant difficulties in meeting their reporting obligations to HELCOM, IBSFC and ICES due to the economic impacts of the process of moving to market economies. As a result, laboratory equipment has not been standardized and/or fully intercalibrated between the laboratories on the Eastern and Western coasts of the Baltic Sea. Data assessment and evaluation methodologies have not been uniform. This applies to monitoring of the state of the marine environment as well as to monitoring of agricultural run-off. These factors have had a negative impact on the quality of scientific advice to decision makers and, subsequently, on the quality of the decisions made.

8. The Project will support activities in the coastal near shore environment of the Eastern Baltic Sea and in selected adjacent sections of the open sea environment. In general, the coastal near shore activities and monitoring network will correlate with land-based coastal and associated demonstration activities supported under Component 2. The planned open sea monitoring will include the current ICES network; this involves activities in ICES Subdivisions 25, 26, 28, 29S and 32. These areas include the Baltic Proper, the sea east of the island of Bornholm, and the Gulf of Finland. The economic zones of the recipient countries are part of these Subdivisions. In the case of non-point source pollution from agriculture, the priority is to develop a network of monitoring stations that will collect and disseminate data and prepare technical reports that will allow for assessment of trends and the effectiveness of on-farm interventions. The design of the non-point source pollution monitoring system supported by the project will ensure that the small-catchment measurements and analysis are consistent with those used at the regional and national levels.

9. Component 1 – Large Marine Ecosystem Management Activities

- **Activity 1 - Strengthening Institutional and Technical Capacity.** This will support the following: (a) *Strengthened Institutional Capacity of Coordination Centers.* Support will be provided to a series of specialized centers in the region involved in implementation of project activities: Fisheries Coordination Center, Productivity Parameters Coordination Center, Environmental Health Parameters Coordination Center, and a GIS-Data Coordination Center; (b) *Conduct Regional Training and Workshops to Strengthen Technical Capacity.* Training and workshops will strengthen technical capacity and will coordinate and link the activities under the component with technical aspects of other regional programs; and (c) *Coordinate Coastal-Near Shore Activities.* Planning and coordination of coastal monitoring surveys in the eastern Baltic Sea will fill the gaps for fisheries and environmental parameters, as mandated by work programs of HELCOM and ICES; and (d) *Coordinate Open Sea Activities.* Planning and coordination of open sea monitoring surveys will calibrate between vessels for regional efficiency and cost-effectiveness. This activity will expand the geographic coverage of open sea activities in the eastern Baltic Sea to reinforce the current ICES monitoring network and fill gaps in both fisheries and environmental data needed by ICES, HELCOM and their member countries.
- **Activity 2 – Operationalize Monitoring and Assessment Surveys in the Eastern Baltic Sea.**

Activity 2 will be planned in Phase 1 and fully commence in Phase 2 of the BSRP, to include procurement of necessary technical equipment for coastal and open sea monitoring surveys and execution of the surveys as coordinated and planned during Activity 1. It will include: (a) *Conduct Coastal Near Shore Monitoring Surveys*. Coastal fish, productivity and ecosystem health parameters will be monitored and data collected as required by the HELCOM/COMBINE monitoring program. Data will be collected based on ICES standards; (b) *Conduct Joint Open Sea Monitoring Survey*. Joint open sea surveys will parallel efforts in the coastal waters, but will include a multi-national technical team to conduct joint open sea surveys that combine monitoring of fish, productivity and ecosystem health parameters from research vessels; (c) *Ships of Opportunity (SOOPs)*. Data from ferries and cutters will be obtained from equipment leased on board and the crew will be trained for data collection. Data will be collected based on ICES standards; and (d) *Data Collection from Commercial Fishing Vessels*. Data from commercial fishing vessels will be obtained from landings and logbooks, and landings statistics from commercial fishing vessels in accordance with ICES standards.

- **Activity 3 - Cooperative Local and Regional Ecosystem Evaluations and Assessments.** Activity 3 will commence in Phase 1, however, most of the activities will be carried out in Phases 2 and 3. Emphasis will be given to use of information collected from Component 1 and Component 2. It will enhance local assessment capabilities through access to improved technical resources and capacity building measures: (a) *Evaluation and Assessment of Component 1 Information*. Evaluation and assessment of data collected in monitoring surveys under Component 1 will be used to formulate advice for IBSFC and HELCOM, and propose ecosystem-based management tools; and (b) *Economic Evaluation of Component Activities* (in coordination with Component 2). This will support socio-economic assessments to promote sustainable ecosystem-based management tools to improve the economic benefits from living marine resources. The coordinated joint assessment effort will support local authorities' decision-making capacity for integrated coastal resource management.
- **Activity 4 - Demonstration Activities.** Demonstration activities will illustrate a range of possible cost-effective measures to improve and restore the coastal ecosystem while building local capacity of coastal communities. Preparation for demonstration activities will begin during Phase 1 and the activities will continue through Phases 2 and 3. Planned activities include: (a) *Salmon River Restoration*.- This will support recommendations in the Salmon Action Plan (SAP) of the IBSFC by restoring segments of selected rivers to restore natural spawning and long-term sustainability of salmon recruitment; (b) *Multiple-Marine Ecological Disturbances (MMED) Predictive Tools for Management*. This activity will support application of a predictive model to examine and understand multiple ecological disturbances in the Baltic Sea to provide a cost-effective management tool for ecosystem management; and (c) *Use of Ecosystem Based Assessments for the Baltic Sea*. This will improve management practices to increase and sustain fishery yields and biological productivity of the Baltic Sea Large Marine Ecosystem (LME).

10. **Component 2 – Land and Coastal Management Activities.** This component will build on the Swedish funded Baltic Agricultural Run-off Action Program (BAAP) activities and those of the HELCOM Working Group on Coastal Lagoons and Wetlands (HELCOM – PITF MLW) that was coordinated by the World Wide Fund for Nature (WWF). Activities 1 and 2 will not be undertaken in Poland, since similar measures are being supported by the complementary Rural Environment Management Project which is also funded by the GEF. The Component includes:

- **Activity 1 - Agricultural Interventions.** This activity will support: (a) *Local Agri-Environmental Capacity Building*. The activity will target the farming community, agricultural advisory organizations and local authorities, using national Codes of Good Agricultural Practices as the

guiding tool that are one of the major environmental commitments undertaken by the countries in accession to the environmentally responsible agricultural practices (agri-environmental) schemes of the EU; (b) *Local Agri-Environmental Capacity Building*. Farmers in the watersheds will be invited to participate in education and training activities to improve sustainable farm management. Training activities will provide farmers with potential investment support through grants from GEF funding combined with credits through cooperation with NEFCO; (c) *Demonstrating Cost-Effective Nutrient Recycling and Retention Technologies*. A select number of on-farm, agri-environmental demonstration practices will be established, including construction and restoration of wetlands for nutrient retention; and (d) *Agri-Environmental Credit Schemes (AgECS)*. Agri-environmental practices will be promoted and eligible on-farm investments will be installed for nutrient re-circulation; such investments include manure pads and slurry storage, equipment for manure and urine spreading and technology for seeding and soil preparation. The GEF grant and/or Nordic Environment Finance Corporation (NEFCO) credit will be complemented by in-kind contributions in materials and labor by the farmer or agricultural company. Field based activities under this activity will be concentrated on watersheds in the vicinity of Janeda, Kabala, Matsalu in Estonia, Mellupite and Berze in Latvia; Vardas, Graisupis, Silute in Lithuania, and Slavsk Region of Kaliningrad Oblast in Russian Federation.

- **Activity 2 - Monitoring and Assessment of Non-Point Source Pollution.** This activity will investigate nutrient loads from agriculture and aims to fill gaps in national monitoring programs and assist in meeting the country's commitment to EU and Helsinki Convention obligations. Development of the monitoring system will be coordinated with the Rural Environmental Protection Project in Poland. It will support: (a) *Catchment Measurement Programs*. These will evaluate loads of nutrients to surface waters from representative agricultural areas, and leaching of nutrients to shallow groundwater in representative agricultural areas; (b) *Effects of Specific Demonstration Activities*. Specific demonstration activities will show governments and farmers the efficiency of various nutrient reduction measures and monitoring of plot demonstration activities; (c) *Agricultural Hot-Spots and Contamination of Drinking Water in Shallow Farm Wells*. This sub-activity will assess, at selected sites, the extent and causes of contamination of drinking water in farm wells. This will include monitoring contamination of drinking water in farm wells and contamination of surface and groundwater; and (d) *Modeling of Nutrient Loads in the Bęrze-Lielupe Basin*. A comprehensive series of actions for training personnel and upgrading modeling capacity will be supported under this sub-activity targeted in the Bęrze-Lielupe demonstration watershed.
- **Activity 3 - Land-Based Coastal Zone Management.** The integrated coastal zone management (ICZM) activities will assist local communities in improving their management of coastal zones. Activities will include involvement of local communities, NGOs, local decision-makers and businesses. WWF has acted as lead party responsible for elaborating ICZM plans for the five priority target areas defined by HELCOM in under the activities of the HELCOM Working Group on the Management of Coastal Lagoons and Wetlands (HELCOM MLW). These management plans are the framework for implementing this activity, and are the basis for the sub-activities. The BSRP social assessment process will be used to provide guidance to optimize local community involvement and benefits so that local communities use natural and economic resources more efficiently, improve their livelihood, and conserve biodiversity. An outreach program will expand these activities to other coastal communities.

Some preliminary activities will commence during Phase 1, and continue through Phases 2 and 3. Sites for activities include: (a) *ICZM Väinameri/Matsalu and Pärnu Bay/Kihnu Island (Sites 1 and 2)*. In coordination with Component 1 and through local capacity building and training, this

will build ecologically based village wastewater treatment systems on the island of Kihnu, restore Lake Prästevik-Voormsi and promote small-scale tourism investments; (b) *ICZM Engure/Ēmeri(Lielupe-Gulf of Riga (Site 3)*. The activity will establish a local small business incubator in Mērsrags, develop and distribute a bi-annual local newsletter, and train fifteen local guides. In coordination with Component 1, a socioeconomic benefits program for local farmers and fishermen will be developed and implemented; (c) *ICZM Kurdiņi Lagoon/ Nemunas Delta (Site 4)*. The activity will support development of visitors facilities, recreational facilities, wetland restoration and preparation of meadow management plans; and (d) *ICZM Kaliningrad Lagoon/Vistula Lagoon (Site 5)*. Activities will focus on low cost efforts to strengthen stakeholder involvement and optimize use of resources including a demonstration clean-up of a small catchment and restoration of a pilot tributary river.

- **Activity 4 -Baltic Sea Regional Agri-Environment Assessment Network (RAN).** Agri-environmental and rural policies are under development in the region, and this activity will link local field-level activities of the BSRP with national authorities and decision-makers. These activities will commence during Phase 2, and through a series of workshops combine field-level activities under the project with development of agri-environment and rural policies.

11. **Component 3 - Institutional Strengthening and Regional Capacity Building.** This Component supports local and regional capacity building and institutional strengthening with an emphasis on regional/sub-regional technical meetings and training activities. These activities will be expanded in Phases 2 and 3.

12. **Component 4 – Project Management.** The Component includes the project management activities and will cover expenses for selected management costs.

E. POTENTIAL IMPACTS

13. **Background.** As late as 1950 the Baltic Sea was still regarded as environmentally “healthy,” its ecological deterioration has been caused in recent years by an increase of point source industrial and non-point source agricultural pollutants, degradation of the coastal zone and non-sustainable use of living marine resources. Its natural vulnerabilities have been seriously aggravated by anthropogenic causes of environmental change and degradation. The project will have some limited short-term environmental impacts from the disposal of small amounts of chemical and biological wastes associated with analysis conducted by cooperating laboratories; undertaking stream restoration measures; construction of small-scale civil works for on-farm nutrient management and wetland restoration activities; construction of water quality monitoring stations; and small-scale construction activities to support coastal zone management. Mitigation and monitoring measures have been included as elements of the project design to avoid or minimize anticipated adverse environmental impacts during project implementation.

14. **Component 1 – Large Marine Ecosystem Management Activities.** The potential impacts from activities supported under Component 1 that will require mitigation activities are:

- **Laboratory Wastes.** The Component will support monitoring activities and collection of samples and specimens under protocols established by ICES for such activities in the North Atlantic, Baltic Sea and North Sea. These samples and specimens will be collected in the open marine environment and from near shore areas and transferred to participating laboratories for analysis and examination. The primary impact from this Component will be the generation of a limited amount of chemical and biological wastes from the laboratories conducting project related analytical work. Potential impacts from these materials are limited and will be managed through the use of proper waste collection and disposal procedures that will be overseen by the Component 1 Coordinator. The project preparation process found that there would be no significant impacts associated with the operation and maintenance of scientific equipment used

for data collection and monitoring under the project. Field equipment used for data collection, such as trawls and fyke nets, will be discarded in accordance with current ICES procedures.

- ***Salmon River Restoration.*** The Component will support the design and implementation of demonstration activities for habitat restoration of coastal rivers used by salmon for spawning. Activities will focus on a combination of management measures and improvement of physical and biological conditions in these areas through small-scale modifications using ecological engineering measures and biological improvements such as plantings and site clean-up. Potential adverse impacts associated with these activities concern physical and biological disturbances during the implementation of the restoration measures. Impacts will include minimal short-term in stream bottom sediment disturbances from stream restoration, channel clearing/cleaning and re-establishment of traditional habitat conditions. Activities will be undertaken consistent with management plans prepared under the project and will be monitored by the Component 1 Coordinator and national and local authorities. The national and local level environmental and fisheries institutions that participate in the work of HELCOM, IBSFC and ICES are familiar with current living marine resource management issues and these institutions have been actively engaged in defining project activities for Component 1. Discussions with national fisheries and aquatic biology scientific research institutes as well as national authorities responsible for management of the environment and living marine resources, concluded that there are only limited environmental impacts associated with the proposed ecosystem restoration activities planned to be supported by the project.

15. **Component 2.** The potential impacts from activities supported under Component 2 that will require mitigation activities are:

- ***Agricultural Interventions.*** The Component will support the design and implementation of on-farm measures to reduce non-point source pollution from agriculture. These activities will focus on implementation of Farm Environmental Management Plans that will include a series of complementary measures for better land management practices such as improved tillage, manure spreading and re-establishment of grassland, combined with selected investments to reduce run-off including the construction of manure pads, restoration of wetlands and establishment of vegetative buffer zones along stream courses. Potential adverse impacts associated with these activities concern physical and biological disturbances during the construction period for the manure pads and wetland restoration activities. These impacts will be highly localized and primarily concern the need to control erosion and sedimentation at the construction site and areas immediately downstream. Activities will be undertaken consistent with management plans prepared under the project and will be monitored by the Component 2 Coordinator, Local Implementation Units (LIUs) and national and local authorities.

The LIUs, which will be based in Agricultural Advisory Services, will be responsible for reviewing the economic and environmental viability of the sub-grant and sub-loan applications and will ensure that applicable national laws and regulations are followed for construction and on-farm management activities. The design and use of the manure pads and other on-farm investments for nutrient management will follow the recommendations laid down in the Codes of Good Agricultural Practices which have been adopted in each of the Baltic States as part of the EU accession process. While similar documentation does not exist in the Russian Federation, the LIUs will ensure that comparable measures are followed in investment projects on Russian territory. In addition, the LIUs will assure that proper site selection procedures have been used for small-scale civil works and that construction contracts include provisions to control potential local impacts from erosion and siltation during construction of these improvements.

- ***Monitoring and Assessment of Non-Point Sources.*** The Component will support the

implementation of a water quality monitoring system for non-point sources of pollution. This will include the construction and operation of a series of small water quality monitoring stations located adjacent to watercourses in representative small watersheds. Potential adverse impacts associated with these activities concern very small and highly localized physical and biological disturbances during the construction period of the monitoring stations. Potential adverse impacts associated with these activities concern physical and biological disturbances during the construction period for the manure pads and wetland restoration activities. These impacts primarily concern the need to control erosion and sedimentation at the construction site and areas immediately downstream. Project supported construction contracts will include measures to reduce erosion and siltation. The Component 2 Coordinator and the LIUs will undertake on-site monitoring during the construction of project supported water quality monitoring stations. This will include site specific monitoring to verify contractors are following mitigation measures.

- ***Land-Based Coastal Zone Management.*** The Component will support the development and implementation of management plans for integrated coastal zone management and wetland restoration. These activities will focus on implementation of management plans, prepared with the participation of local communities, to improve land and water management practices, support small-scale civil works and restore wetlands. The project will support application of modern management practices to enhance biodiversity and improved local management of natural resources. Potential adverse impacts associated with these activities concern physical and biological disturbances during the construction period for small-scale civil works and wetland restoration activities. These impacts will be localized and primarily concern the need to control erosion and sedimentation at the construction site and areas immediately downstream. To address these issues mitigation measures will be included in the design and construction contracts and implementation of these provisions will be monitored on a site specific basis.

These activities will be undertaken consistent with management plans prepared under the project and will be monitored by the Component 2 Coordinator, LIUs and national and local authorities. The management plans are subject to formal review and approval by national and/or local authorities as appropriate. The Component will provide support for activities in some locations that are formally protected areas: Matsalu State Nature Reserve, Estonia; Kihnu Strait Marine Park, Estonia; Engure/Kemeru National Park, Latvia; and Nemunas Delta Regional Park, Lithuania. Proposed types of activities under the BSRP include the restoration of wetlands and construction of small scale facilities for wastewater treatment using ecological engineering approaches. Other activities would involve the development and renovation of nature trails, and construction of small scale recreational facilities including placement of trash bins, small cabins for changing clothes and a limited number of toilets. All project supported activities will be consistent with the protection status of these areas and any actions will be part of management plans that have been reviewed, cleared by the authorities responsible for their management and jointly implemented with these management organizations. Some of the coastal communities where the demonstration activities are proposed have already participated in locally based coastal zone planning and management studies undertaken in the context of the JCP with support from the World Wild Fund for Nature (WWF) and other parties including the World Bank.

F. SOCIAL ASPECTS

16. **Social Assessment.** The project includes a systematic social assessment to evaluate positive and negative social impacts from the component activities, support community outreach programs and to provide a mechanism to identify potential modifications to the project design as needed. The social assessment also will monitor and evaluate the technical assistance provided to local stakeholders and anticipated impacts from tourism development. This approach, similar to that used for the Rural Environment Protection Project in Poland, provides for an on-going approach to social aspects of the project on a rolling basis, targeting of actions for site specific needs and innovation over the course of the project.

17. **Access to Employment.** The project is anticipated to have a positive impact on local poverty reduction through local employment opportunities and to improve socioeconomic conditions in the farming, fishing and coastal communities. Consultations undertaken during the project preparation process identified local access to short- and long-term employment by local residents as a key issue in the demonstration activity areas. This issue has been included in the EMP to highlight its importance and to facilitate its integration into the mitigation measures and monitoring actions. It is anticipated, on the basis of previous experience with project implementation in the cooperating countries, that as a result of the project there will be increased – although limited – opportunities for local short- and long-term employment.

18. The short-term employment will be generated by opportunities to provide skilled and semi-skilled labor to the local construction contractors, undertaking land and vegetation management activities and providing services. Over the medium and long-term the activities for the management of living marine resources and the salmon river restoration activities will increase the employment opportunities associated with commercial and recreational fishing. The construction contracts for small-scale civil works for on-farm improvements will generate employment for firms and workers with experience in excavation and construction of concrete structures. The community based orientation of the coastal zone management programs will target the development of both permanent and seasonal local employment from small scale activities and development of services, especially related to national and regional tourism.

G. MITIGATION MEASURES

19. **Overview.** The mitigation measures outlined in this section will be undertaken as part of the project implementation process to mitigate potential impacts from laboratory activities, salmon river restoration measures, agricultural interventions, monitoring and assessment of non-point sources and land-based coastal zone management activities. Mitigation measures include: management of chemical and biological wastes from data collection and analysis; preparation of management plans with mitigation measures to reduce environmental impacts, contractor efforts to reduce environmental impacts, and use of archeological “chance find” procedures. The primary adverse impacts from the project are largely associated implementation of ecological engineering measures for the salmon river restoration activities and construction of small-scale civil works for on-farm improvements, water quality monitoring stations and coastal zone management. These impacts are very localized, limited in their scope, short in duration and can be addressed through both design and monitoring measures. Table A summarizes the activities, mitigation issues and measures to be taken, and the monitoring and supervisory responsibilities.

20. **Key Measures.** The key mitigation measures included in the project are as follows:

- **Management of Laboratory Wastes.** Cooperating laboratories will use proper chemical and biological waste collection and disposal measures that will be consistent with those recommended by ICES. Field equipment used for data collection will be disposed of in

accordance with current ICES procedures. A review will be conducted by the Component 1 Coordinator of procedures used at each laboratory to confirm their consistency with these procedures and modifications will be made as appropriate. The management of laboratory wastes will be reviewed and reported on as an element of project implementation activities by the Component 1 Coordinator.

- ***Preparation of Management Plans.*** As part of the implementation process, the project provides support for preparation and implementation of site specific environmental management plans. These include the preparation of:

Component 1

- ***Salmon River Restoration Action Plans (SRRAP).*** The SRRAP will include the design of salmon river restoration measures and identify associated mitigation actions. The SRRAP will incorporate use of appropriate eco-engineering approaches and management during stream restoration activities to reduce erosion and siltation. It will contain site specific guidelines concerning the timing for restoration and mitigation measures to minimize in-stream disturbances, and recommendations for actions to be taken during stream restoration activities to avoid habitat disturbance and reduce erosion and siltation.

Component 2

- ***Farm Environmental Management Plans.*** The Farm Environmental Management Plans will be prepared for each participating farm. These will specify timing of construction and erosion control measures to reduce downstream impacts from construction of manure pads and other structures. Contracts will specify measures to be taken during construction to reduce erosion and siltation.
- ***Monitoring and Assessment of Non-Point Sources.*** A design has been prepared for the water quality monitoring system and sites proposed for construction of stations. Project supported construction contracts will include measures to reduce erosion and siltation.
- ***Integrated Coastal Zone Management Plans.*** Management Plans will be prepared for each area included under this activity. These will provide a framework for management of coastal resources and an active role for local communities in decision making and benefit sharing. The management plans will specify timing of the actions to be taken for these areas with regard to new management practices, small-scale civil works, measures for mitigation of impacts from the development and use of visitor facilities, and change in land use practices. The management plans will be formally reviewed and approved by national and regional authorities. Management plans will address potential construction impacts. Project supported construction contracts will include measures to reduce erosion, siltation or damage to sensitive habitats.

The plans will provide a mechanism for the project implementation organizations to communicate effectively with contractors and resource agency personnel regarding issues pertaining to mitigation measures and farm installations, and identify training for contractors responsible for construction and maintenance of farm installations and restorations. The Agricultural Advisory Services (AAS) will train contractors to take precautions during construction activities under Component 2.

- ***Representative Mitigation Actions.*** The mitigation actions for project supported activities will include, but not be limited, to the following:

- ***Minimization of Impacts.*** Particular emphasis will be placed on scheduling activities to

minimize impacts on flora and fauna, specifically during the fish-spawning season and in sensitive habitats. Erosion control mitigation measures, proposed ecosystem restoration and farm management plans will comply with national environmental policies (standards and permits) and are designed to conform to accepted engineering and environmental standards.

- *Design Specifications.* Design specifications for mitigation measures will be provided to contractors. The design specification will address required management practices for installation, inspection, maintenance, erosion prevention and sediment control, such as:
 - Guidelines for design and construction (e.g. size, depth, soil properties, drainage network) of manure pads, slurry tanks, and other nutrient recycling structures for farm installations.
 - Guidelines and design specifications for construction of in-stream monitoring stations to include appropriate erosion and sediment control measures to reduce construction impacts (e.g. silt fences, drainage bypasses, biostabilization blankets and eco-techniques for stream bank restoration).
 - Design guidelines for ecosystem and stream restoration to include erosion and silt control mitigation measures and eco-engineering techniques (e.g. erosion control silt fences, drainage bypasses, and bio-stabilization blankets).
- ***Contractor Requirements to Minimize Environmental Impacts.*** The EMP supports specific measures to mitigate potential construction and operation period impacts and to address safety issues. Individual management plans will provide guidelines and actions to mitigate potential environmental impacts, through instructions to design engineers and construction contractors to undertake certain actions on a site specific basis. Contractors will be required to provide and maintain equipment with proper noise abatement controls. Specific provisions should be included in construction contracts to mandate the use of health and safety measures to minimize accidents during the construction and post-construction process. Appropriate bidding documents for construction will be prepared to support the EMP.
- ***Archeological “Chance Find” Procedures.*** All cooperating countries have cultural heritage laws and well developed institutions in this area. Archaeological and historical site surveys exist at the county level for many of the areas in which project activities will be undertaken. The small-scale nature of the civil works and wetlands restoration activities supported under the project allow them to be sited in a flexible manner that can be used to avoid sites of archaeological or historical value. Provisions will be included in contract documents to address archeological “chance finds” should they be encountered during the course of construction activities; these provisions will follow procedures accepted by the national and/or local authorities responsible for archeological and historical sites and materials.

21. **Project Implementation Monitoring.** The following project implementation monitoring actions will be taken:

- ***Component 1 - Activities 1 and 2. Management of Laboratory Wastes.*** The Component 1 Coordinator and team will monitor the proper collection and disposal of chemical and biological wastes from cooperating laboratories. This will include the examination of laboratory records and review of practices on-site and at the cooperating laboratories. These procedures will also be monitored as an element of Bank supervision.
- ***Component 1 - Activity 4. Salmon River Restoration.*** The Component 1 Coordinator and team will undertake on-site monitoring during the implementation of project supported ecological

engineering activities and channel clearing/cleaning activities. This will include site specific monitoring to verify contractors are following mitigation measures and spot checks in adjacent areas and in water bodies influenced by the management activities. Site specific monitoring will be conducted for standard water quality and ecological parameters to evaluate short-term restoration impacts to stream habitats, submerged vegetation and spawning areas. Standardized observations will be made concerning stream morphology and status of habitats before, during and after construction. Samples will be collected to evaluate water quality, especially turbidity and suspended materials and selected biological parameters. This will be complemented by longer-term monitoring, in conjunction with spawning and post-spawning seasons, to evaluate benefits from these interventions. The use of these procedures will also be monitored as an element of the Bank supervision.

- ***Component 2 - Activity 1. Agricultural Interventions.*** The Component 2 Coordinator and the LIUs will undertake on-site monitoring during the construction of project supported small-scale civil works and wetland restoration activities. This will include site specific monitoring to verify contractors are following mitigation measures and spot checks in adjacent areas and in water bodies influenced by the management activities. This will be complemented by baseline monitoring supported under the project to assess pre-and post-project environmental conditions and benefits from the interventions. This monitoring network will be coordinated with the coastal zone monitoring activities described below. The use of these procedures will also be monitored as an element of Bank supervision.
- ***Component 2 - Activity 2. Monitoring and Assessment of Non-Point Sources.*** A design has been prepared for the water quality monitoring system and sites proposed for construction of stations. Project supported construction contracts will include measures to reduce erosion and siltation. The Component 2 Coordinator and the LIUs will undertake on-site monitoring during the construction of project supported water quality monitoring stations. This will include site specific monitoring to verify contractors are following mitigation measures. The use of these procedures will also be monitored as an element of Bank supervision.
- ***Component 2 - Activity 3. Land-Based Coastal Zone Management.*** The Component 2 Coordinator and the LIUs will undertake on-site monitoring during the construction of project supported small-scale civil works and wetland restoration activities. This will include site specific monitoring to verify contractors are following mitigation measures and spot checks in adjacent areas and in water bodies influenced by the management activities. This will be complemented by baseline monitoring supported under the project to assess pre-and post-project environmental conditions and benefits from these interventions. This monitoring network will be coordinated with the agricultural monitoring activities described above. The use of these procedures will also be monitored as an element of Bank supervision.

H. CONSULTATION AND DISCLOSURE OF INFORMATION

22. The project preparation process has included a variety of consultations with a wide range of stakeholders, including nongovernmental organizations (NGOs), at the regional, national and local level. This process will continue during the project implementation period which will allow for inputs from stakeholders especially at the activity specific level. The EMP has been made available to the public through the Info-Shop at the World Bank, at the coordinating institutions—HELCOM (Helsinki), IBSFC (Warsaw) and ICES (Copenhagen) and through the Ministries of Environment of the cooperating national governments (Estonia, Latvia, Lithuania, Poland and the Russian Federation). It is also available at the World Bank offices in the cooperating countries.

23. The consultation processes during project preparation were diverse and used a range of formats

including regional and national meetings with scientific and technical institutes, parties concerned with marine resources management, agricultural extension agents and nongovernmental organizations. As part of this process a major international meeting was held in Lithuania to review the experience with transboundary water management in the Baltic Sea Region and technical meetings were held in Latvia and Poland to review the marine resource and coastal management issues. Design of the activities for control of non-point source pollution and integrated coastal zone management included workshops at the national and local level, which provided agricultural extension agents, cooperating farmers, community based organizations and local nongovernmental organizations an opportunity to provide input to the project design process based on their experience from the earlier bilateral and Bank supported demonstration projects at the field level. A field trip to Poland to visit the ongoing Rural Environment Management Project was the occasion for a variety of stakeholders to meet Polish experts, community representatives and farmers to review their experience with on-farm activities to reduce agricultural pollution.

24. These consultations emphasized the need to maintain a balance between meeting regional scientific and technical objectives on the one hand, and improving environmental and social conditions at the local level on the other. As noted in Section F above on Social Aspects, the key issue raised by fishing, farming and coastal communities was their interest in the project supporting, over the short-, medium- and long-term, expanded opportunities for permanent and/or seasonal employment. In this context, the project will work with local communities to maximize their direct and indirect employment opportunities from small-scale investment activities, participation in various types of management measures and to support development of longer term employment opportunities associated with sustainable resource management. In this context, it will build upon the experience from Bank supported environmental management projects in Estonia, Latvia and Lithuania.

I. INSTITUTIONAL STRENGTHENING

25. **Institutional Strengthening.** Component 3 of the project provides support for institutional strengthening and capacity building measures necessary for the implementation of the ecosystem management approach promoted by the project. Successful implementation of the project requires the strengthening of regional and local institutional capacity to supervise the construction and maintenance of the installations and restoration activities. The Component's primary objective is to strengthen regional and local capacity to successfully utilize outputs and recommendations from Component 1 and Component 2 activities for sustainable ecosystem-based management. Under the three phase approach adopted for implementation of the overall BSRP, Phase 1 will include a small number of institutional strengthening activities; activities in this area will be expanded significantly during Phases 2 and 3 of the project. In addition, the Component Coordinators will work with the local counterparts at the technical Coordination Centers, the LIUs, and AASs to identify training needs and provide practical training in laboratory methods, assessment and management of agri-environmental issues and coastal zone management.

J. ESTIMATED COST

26. The costs for implementation of management and monitoring activities included in the EMP have been integrated into the estimated budgets for the individual activities and management costs for the Phase 1 project. This approach reflects the environmental management orientation of the project and the fact that most mitigation actions are associated with project supported management plans, design approaches and specifications in construction contracts. Monitoring of project supported implementation is an element of the work program of the project management team while baseline and long-term environmental monitoring are included as specific activities within the operational components of the

project.

K. IMPLEMENTATION SCHEDULE

27. The proposed mitigation and monitoring activities during Phase 1 will be undertaken consistent with the following schedule:

Component	Year 1 (quarters)								Year 3 (quarters)			
	1	2	3	4					1	2	3	4
<i>Component 1 – Laboratory Waste Management</i>												
Review Laboratory Procedures	X	X										
Establish Laboratory Procedures	X	X										
Monitor Use of Procedures		X	X	X	X	X	X	X	X	X	X	X
<i>Component 1 – Salmon River Restoration</i>												
Prepare Restoration Plans			X	X	X							
Monitor Implementation						X	X	X	X	X	X	X
<i>Component 2 – Agricultural Interventions</i>												
Prepare On-Farm Management Plans	X	X	X	X	X	X	X					
Monitor Implementation			X	X	X	X	X	X	X	X	X	X
<i>Component 2 - Monitoring and Assessment of Non-Point Sources</i>												
Finalize Designs and Site Selection	X	X										
Monitor Implementation			X	X	X	X	X	X	X	X	X	X
<i>Component 2 – Land-Based Coastal Zone Management</i>												
Prepare Management Plans	X	X	X	X	X	X	X	X				
Monitor Implementation			X	X	X	X	X	X	X	X	X	X

L. REPORTING AND SUPERVISION

28. **Reporting.** The Project will comply with the “Guidelines for Financial Reporting and Auditing of Projects Financed by the World Bank.” The Bank together with HELCOM will agree upon reporting requirements for Financial Monitoring Reports (FMR). Project progress will be reported through annual, semi-annual and quarterly Project progress reports. An Implementation Completion Report (ICR) will be prepared within six months of Project completion.

29. **Supervision.** The Component Coordinators will supervise the monitoring of project supported activities on a routine basis. This will be complemented by Bank supervision of the project. The process will include the participation of Bank environmental and social staff in supervision missions, as appropriate, to review progress in the implementation of the EMP. The performance of the Executing Agency in these project activities will be a standard element of supervision reports and the Implementation Completion Report (ICR).

Component	Activities	Phase	Issue	Mitigation Measure	Monitoring
COMPONENT 1 – LARGE MARINE ECOSYSTEM ACTIVITIES					
<i>Activity 1 Strengthen Institutional and Technical Capacity</i>					
<i>Activity 2 Operationalize Monitoring and Assessment Surveys in the Eastern Baltic Sea</i>					

<p><i>Activity 1</i> Sub-activity (a) Strengthened Institutional Capacity of Coordination Centers</p> <p><i>Activity 2</i> Sub-activity (a) Conduct Coastal Near Shore Monitoring Surveys</p> <p>Sub-activity (b) Conduct Joint Open Sea Monitoring Survey</p>	Monitor chemical and biological waste disposal practices used by cooperating laboratories .	Monitoring	Minimization of risks associated with the disposal of chemical and biological wastes from data collection and analysis in cooperating laboratories.	Cooperating laboratories will use proper chemical and biological waste collection and disposal measures that will be consistent with those recommended by ICES. Field equipment used for data collection will be disposed of in accordance with current ICES procedures.	<p><i>What.</i> The Component 1 Coordinator and team will monitor biological waste collection and disposal practices used by cooperating laboratories.</p> <p><i>Where.</i> At cooperating laboratories participating in the project.</p> <p><i>When.</i> Data on the management of these materials will be collected from cooperating laboratories and reviewed as an element of the project process.</p> <p><i>How.</i> Examination of laboratory records and on-site monitoring.</p> <p><i>Why.</i> To avoid risks associated with improper disposal of chemical and biological wastes from laboratories.</p>
Activity 4 Demonstration Activities					
Sub-activity 4 (b) Salmon River Restoration	Prepare Salmon River Restoration Action Plan (SRRAP).	Mitigation	Prepare a site specific Salmon River Restoration Action Plan (SRRAP) for each river selected for a demonstration activity.	The SRRAP will include design of salmon river restoration and mitigation actions, which will incorporate use of appropriate eco-engineering approaches and management during stream restoration activities to reduce erosion and siltation.	<p><i>What:</i> The Component 1 Coordinator and team will monitor restoration activities during the implementation of restoration activities. Baseline and long-term monitoring data will be collected to assess the impacts from implementation of the restoration project.</p> <p><i>Where:</i> At the salmon river restoration sites, especially in areas with ecological engineering measures and channel clearing.</p> <p><i>When:</i> During the implementation process at the restoration sites. Spot checks in areas adjacent to the restoration sites will be carried out.</p> <p><i>How:</i> Site specific monitoring will be done during the implementation process by the LIU to verify that contractors are following the SRRAP and that spot checks are carried out in adjacent areas to assess impacts influenced by the restoration activities.</p> <p><i>Why:</i> To avoid unnecessary impacts to restoration activities and supported activities and to develop an adequate understanding of the effects of the selected actions on environmental conditions. This will include an evaluation of pre-restoration conditions and assess benefits from interventions.</p>
	Restore segments of the Parnu River in Estonia.	Construction	Minimal short-term in stream bottom sediment disturbances from stream restoration, no long-term disturbances.	The SRRAP will contain site specific guidelines concerning the timing for restoration and mitigation measures to minimize in-stream disturbances. It will provide recommendations for actions to be taken during stream restoration activities to avoid habitat disturbance and reduce erosion and siltation.	
	Restore segments of a selected river in Latvia.	Construction	Short-term in stream bottom sediment disturbances from stream restoration, no long-term disturbances.	The SRRAP will contain site specific guidelines concerning the timing for restoration and mitigation measures to minimize in-stream disturbances. It will provide recommendations for actions to be taken during stream restoration activities to avoid habitat disturbance and reduce erosion and siltation.	
	Restore segments of Minija River in Lithuania.	Construction	Minimal short-term in stream bottom sediment disturbances from	The SRRAP will contain site specific guidelines concerning the timing for restoration and mitigation measures to minimize in-stream disturbances. It will	

			stream restoration, no long-term disturbances.	provide recommendations for actions to be taken during stream restoration activities to avoid habitat disturbance and reduce erosion and siltation.	
	Monitor restored rivers.	Monitoring	Restored rivers should be monitored by Regional Environmental Offices and Fisheries Offices.	The SRRAP will outline a short-term and long-term monitoring schedule developed in cooperation with environmental and fisheries authorities.	
COMPONENT 2 LAND AND COASTAL MANAGEMENT ACTIVITIES					
Activity 1 Agricultural Interventions					
Sub-activity 1 (b) Demonstrating Cost-effective Nutrient Recycling and Retention Technologies Sub-activity 1 (c) On-Farm Environmental Investments	Demonstrating on-farm agri-environment measures – construction of small scale civil-works for nutrient control.	Construction	Minimal short-term disturbances from construction activities at participating farms. Will not result in any long-term disturbances.	Farm Environmental Management Plans will be prepared for each participating farm. These will specify timing of construction and erosion control measures to reduce downstream impacts from construction of manure pads and other structures. Contracts will specify measures to be taken during construction to reduce erosion and siltation.	<i>What:</i> The Component 2 Coordinator and LIU representatives will undertake on-site monitoring during the construction phase to establish baseline and long-term in-stream water quality data to assess impacts and trends from interventions to reduce erosion and siltation. <i>Where:</i> On-farm at the construction sites and in-stream at the construction sites. <i>When:</i> During the construction process at the construction sites. In-stream checks in-stream below the construction sites. In-stream monitoring for streams in focus areas for on-farm investments. <i>How:</i> Site specific monitoring will be done during the construction phase by the LIU to verify that contractors are following measures and that spot checks are being done in-stream at construction sites. In-stream monitoring network will be established and equipment and field samples will be established as part of Activity 2 (see below). <i>Why:</i> To avoid unnecessary impacts to stream channels and water quality during construction phases. In-stream monitoring will be used to evaluate pre-and post-restoration conditions and trends from interventions.
	Construction and restoration of wetlands.	Construction	Minimal short-term in-stream disturbances from wetland restoration activities. Will not result in any long-term disturbances.	Farm Environmental Management Plans will be prepared for each participating farm. These will specify timing of construction and erosion control measures to reduce downstream impacts from construction and restoration of wetlands. Contracts will specify measures to be taken during construction to reduce erosion and siltation.	
	Construction of water purification systems using ecological engineering methods.	Construction	Minimal short-term in-stream disturbances from water purification activities. Will not result in any long-term disturbances.	Farm Environmental Management Plans will be prepared for each participating farm. These will specify timing of construction and erosion control measures to reduce downstream impacts from construction of water purification systems. Contracts will specify measures to be taken during construction to reduce erosion and siltation.	
Activity 2 Monitoring and Assessment of Non-Point Source Pollution					
Sub-activity 2 (a) Catchment Measurement Programs	Establish monitoring network in demonstration	Monitoring/Construction	Development of the monitoring system will require	A design has been prepared for the water quality monitoring system and sites proposed for construction of stations. Project	This sub-activity establishes the in-stream water quality monitoring network for Component 2, Activity 1 to support the on-farm investments for control of non-point source pollution in agriculture. This monitoring network will be coordinated

	on watersheds.		construction and operation of water quality monitoring stations on selected watersheds.	supported construction contracts will include measures to reduce erosion and siltation.	coastal monitoring activities under Activity 3 (bel 2 Coordinator and the LIUs will undertake on-site construction of project supported water quality m will include site specific monitoring to verify con mitigation measures.
	Develop data collection program.	Monitoring	Refer to Monitoring column.	Monitoring schedule for data collection network has been prepared.	
	Collect data.	Monitoring	Refer to Monitoring column.	Monitoring schedule for data collection network has been prepared.	
Activity 3 Land-Based Coastal Zone Management					
Sub-activities 3(a), 3(b), 3(c), 3 (d)	Demonstrating coastal zone management programs in cooperation with local communities.	Mitigation	Management plans will result in improved management of sensitive coastal and wetland habitats. In order to achieve this, objective measures will be taken to change land and water management practices, support small-scale civil works and to restore wetlands.	Management Plans will be prepared for each area included under this activity. These will provide a framework for management of these coastal resources and an active role for local communities in decision making and benefit sharing. The management plans will specify timing of the actions to be taken for these areas with regard to new management practices, small-scale civil works, and changes in land use practices. Management plans will be formally reviewed and approved by national and regional authorities.	<i>What:</i> LIU representatives will undertake on-site m construction phase and both baseline and long-term be collected to assess impacts from implementation <i>Where:</i> At the coastal zone management site and small-scale civil works and wetland restoration ac <i>When:</i> During the construction process at the con checks in areas adjacent to the construction sites a influenced by the construction. <i>How:</i> Site specific monitoring will be done during phase by the LIU to verify contractors are followi and that spot checking is done in adjacent areas a influenced by the management activities. <i>Why:</i> To avoid unnecessary impacts to coastal zon from construction activities and to develop an ade understand the effects of the selected management socio-economic conditions. This will include an e post-restoration conditions and assess benefits fro
	Implementation of coastal zone management plans including use of new approaches to resource management, construction of small-scale civil works and measures for wetlands restoration.	Construction	Minimal short-term disturbances from construction activities at coastal zone management sites. Will not result in any long-term disturbances.	Management plans will address potential construction impacts. Project supported construction contracts will include measures to reduce erosion, siltation or damage to sensitive habitats.	
	Develop and implement monitoring program.	Monitoring	Potential impacts during construction phase should be monitored and program	Refer to Monitoring Column (on previous page).	<i>Coordination:</i> This monitoring network will be co agricultural coastal monitoring activities under Act

			established to evaluate long-term environmental trends in areas supported by the project.		
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Additional Annex 14: STAP Technical Review
EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

Date: September 11, 2000

To: Stephen Lintner, Senior Environmental Advisor, ENV, World Bank

From: Richard Kenchington
RAC Marine Pty Ltd, PO Box 588, Jamison, ACT 2614, Australia

Subject: STAP Review: GEF-Baltic Regional Project.

This review addresses the terms of reference set out in your Memorandum of 22 August 2000.

1 The project directly addresses clearly defined needs in the context of the International Waters Convention. It addresses the urgency of regional issues in a marine ecosystem that is shared by and impacted by the activities of several nations. It builds on existing capacity of HELCOM and other regional mechanisms for collaborative action. It also builds on the critical opportunity provided by the need and economic incentive to meet the requirements of EU directives.

2 The project objectives are valid, challenging and well focused. The proposed activities address very difficult and important issues in the areas of fisheries, pollution and catchment management and the development of long term economic opportunities for coastal people. The project builds on a decade of work with HELCOM and it appears that the proposed activities are likely to be broadly supported and to be effective in addressing the issues.

3 The approach of the project is logical and appropriate. The greatest challenge in implementation will lie in achieving ongoing integration of the scientific and monitoring programs and outputs with the information inputs required to address the immediate and longer-term needs of management.

4 The document provides sufficient strategic information for implementation. The Annexes and the preparation of table E indicate that the issues of detail and coordination have been considered and are available for the implementation team.

5 I have little direct knowledge of regional or country priorities but the document has addressed and discussed priorities in a way that indicates that there has been substantial consideration, which is reflected in the proposal.

6 The document is well presented and well argued. It clearly articulates the reasons and the urgency for the project to be undertaken. The issue of incremental costs is particularly well addressed and present arguments that apply to many shared coastal and shallow sea areas. It argues clearly and appropriately that investment to halt and reverse otherwise inevitable decline of environmental conditions and ecosystem-based productivity is as valid as technological investment to prevent future damage.

7 The activity descriptions present adequate information on what is intended to be accomplished.

8 Again, my ability to comment is limited by my lack of experience in the Baltic but the figures and relative allocations appear reasonable, consistent and are clearly presented.

9 The project involves achieving social, economic and attitudinal changes in long established practices of agricultural and fishing communities. Such changes take time. This project builds upon a decade of work between the World Bank and HELCOM that has achieved significant and growing community recognition of the problems and of the need for the changes proposed. The proposal as presented should advance the objectives by delivering substance and results to address the needs and demonstrate benefits to participating communities. The ultimate demonstration of success will be the demonstration through ongoing and subsequent local and regional investment that the environmentally sustainable technologies and practices demonstrated are being incorporated into normal economic activity in the catchments and coastal areas of the Baltic. In the light of the reports of attitudinal change in the past decade the prospects appear good.

10 I consider this should be seen as a priority issue for GEF. This is clearly a project that addresses international waters and biodiversity priorities of the GEF, the priority issues of Chapters 17 and 36 of Agenda 21. Also, having regard to the long history of human settlement and use of the coastal and catchments of the Baltic, it addresses the issues of Chapter 26 of Agenda 21. This is not only an important project for its Region; it has important implications for addressing similar urgent needs in other coastal and shallow marine ecosystems in the world.

11 Some comments on the professional challenges for fisheries managers, scientists and community managers are attached separately. They reflect issues that may have been considered in project development and in my view need to be addressed in initiation and throughout implementation of a project that I recommend urgently for support.

R A Kenchington

Attachment to STAP Review of GEF Baltic Sea Regional Project

Issues for implementation

- 1) The project is logical, well described and achievable. Its implementation presents several important professional style and disciplinary challenges of approach and demands for an ongoing high level of inter-disciplinary collaboration between scientists, fisheries managers and community leaders and managers.
- 2) From the perspective of managing a large marine ecosystem the following issues should be addressed in implementation:
 - a) The objectives of, and information collected in, research and monitoring programs must directly address the clearly identified concerns and time scales important to managers as well of those of ecological research:
 - i) Short and long term management needs should be clearly identified and addressed issues include:
 - (1) Recruitment variability of fisheries target species;
 - (2) interactions of apparently 'natural' and apparently anthropogenic causes of variations;
 - (3) impacts of fishing methods on non-target species and the ecological processes which sustain the ecosystem and fisheries of the Baltic;
 - (4) understanding the interaction between investment cycles and fish stocks;
 - (5) understanding the social and economic factors and potential to resolve competition between commercial and recreational competition for fish stocks.
 - b) It is important to ensure the best possible data is available on catch, effort and location of catch for the fisheries. Given the cultural tradition of all fishers to obfuscate such information I would advocate a feasibility study of the use of vessel monitoring systems and audited community catch reporting.
 - c) There is a disturbing lack, anywhere in the world, of fisheries management schemes capable of demonstrating sustainability with respect to stocks and to the environments and ecological communities that sustain them. I would advocate the adoption of a goal and the development of robust performance criteria that may be able to establish sustainability in one or more of the Baltic fisheries.
 - d) In the absence of robustly demonstrable sustainability of fisheries I would advocate the application of the precautionary principle through the establishment of reference sites, refugia or marine protected areas to provide area from which it may be possible for recruitment and migration to restore area damaged by over fishing.
 - e) In any case, I would advocate the pursuit of marine protected areas representative of all major habitat types in the Baltic large marine ecosystem as a matter of conservation importance. This issue is not directly addressed in the project proposal. It is possible that it is being addressed elsewhere but it is important conceptually to the concept of sustainable management of the Baltic Sea.

**World Bank Response to
STAP Review of GEF Baltic Sea Regional Project:**

The Project preparation team is pleased with the STAP Reviewer's positive response to the project objective and project design, and appreciates the issues the Reviewer identifies for consideration during Project implementation. The following provides an overview of the Project approach and how the issues would be addressed. Reference is made to the Large Marine Ecosystem (LME) workshop was held 11-14 July in Riga, Latvia, for which the workshop reports are available on file, or responses refer to proposed activities identified in Annex 2 Table C of the PAD document.

- 1) *Issue:* Recruitment variability of fisheries target species.
Response: The Riga workshop report elaborates on the participants' discussions on fishery issues and identifies proposed target species ranging from sprat and herring to cod, and Component 1 Activity 1.2 (c) will provide an opportunity to address recruitment variability during the proposed multi-species stock assessment activity.
- 2) *Issue:* Interactions of apparently 'natural' and apparently anthropogenic causes of variations:
Response: This issue can be addressed within Component 1 Activity 1.1 elements, which include modeling the carrying capacity modeling efforts to assess and evaluate fishery ecosystem interactions and to better understand environmental effects into fish stock assessment. It is anticipated that this information will contribute to a better understanding of the interaction of natural and/or anthropogenic causes of species variations.
- 3) *Issue:* Impacts of fishing methods on non-target species and the ecological processes which sustain the ecosystem and fisheries of the Baltic;
Response: As part of the Riga workshop participants provided a baseline review on the status of fishing vessels, data quality, and data needs. Though not specifically articulated in the PAD document, the intent of Component 1 Activity 1.2 fishing methods will be evaluated and cost-effective methods to collect sustainable and reliable fisheries statistics will be developed.
- 4) *Issue:* Understanding the interaction between investment cycles and fish stocks;
Response: This issue can be addressed in an integrated approach within Component 1 Activity 1.2, which will conduct multi-fish stock assessments, and relevant data will be coordinated with Component 3 Activity 3.1 in assessing the value of ecosystem goods and services.
- 5) *Issue:* Understanding the social and economic factors and potential to resolve competition between commercial and recreational competition for fish stocks.
Response: This issue can be addressed in Component 1.2, which will target support for improvements in, and provide recommendation for national and international ecosystem strategies for problems and conflicts in transboundary coastal fisheries, this includes conflicts between commercial and recreational fisheries. Elements from the output of this effort will be considered in the proposed socioeconomic assessment.

General response to other comments: The project design was developed within the context of LME and in developing the Project Implementation Plan this fall, there will be an opportunity to further develop project indicators and long-term performance criteria for sustainable fisheries management practices. Though not specifically stated in the PAD, an anticipated outcome from the Project activities will be

recommendations for environmentally responsible practices for sustainable management of Baltic Sea resources, and this would include recommending sites for conservation and protection of ecologically significant coastal and marine waters.

Additional Annex 15: Letters of Endorsement
EUROPE AND CENTRAL ASIA: BALTIC SEA REGIONAL PROJECT - PHASE 1

Annex 15 includes GEF National Focal Point letters of endorsement from Estonia, Latvia, Lithuania, Poland and the Russian Federation.



MINISTRY OF ENVIRONMENTAL PROTECTION AND REGIONAL DEVELOPMENT
OF THE REPUBLIC OF LATVIA

Dr. Stephen F. Lintner
Senior Environmental Advisor
Environment Department
World Bank
18181 H Street N.W.
Washington, D.C. 20433, USA
Fax: 1-202-522-0367

Riga, August 18, 2000.

2-09/1407


Subject: GEF-Baltic Sea Regional Project - letter of Endorsement

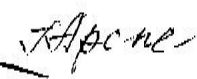
Dear Dr. Lintner,

The Ministry of Environmental Protection and Regional Development of Latvia on behalf of the Government is pleased to endorse the proposed UNDP/World Bank GEF Baltic Sea Regional Project. This project will contribute to realization of the Helsinki Convention's objective to restore the ecological balance of the Baltic Sea, through its support for management of living marine resources and control of non-point pollution loads, both of which are priority issues in the region. It will also provide an opportunity for Latvia and the other recipient countries to strengthen their institutional and technical capacity, assisting them to manage the Baltic Sea ecosystem in a sustainable manner.

The proposed project has been developed in collaboration with the UNDP and the World Bank. Its activities and goals are in accordance with Latvia's priorities for restoration of the Baltic Sea and the Government of Latvia attaches great importance to the realization of the project's objectives. We are pleased to recognize that the Helsinki Commission (HELCOM) will serve as the Executing Agency in cooperation with the International Baltic Sea Fisheries Commission (IBSFC) and the International Council for the Exploration of the Sea (ICES).

Sincerely,


Zigfrīds Brūvers
Deputy State Secretary


Ingrida Apene
GEF Operational Focal Point for Latvia

25 Peldu Str., LV-1494, Riga, Latvia; phone: 371 7026470, 371 7026590; fax 371 7820442



LIETUVOS RESPUBLIKOS
APLINKOS MINISTERIJA

2000 09 20

Nr. 05-04-3528

Dr. Stephen F. Lintner
Senior Environmental Advisor
Environment Department
World Bank
1818 H Street N.W.
Washington, D.C. 20433
USA

Fax: 1-202-522-0367

Re: GEF-Baltic Sea Regional Project - Letter of Endorsement

Dear Dr. Lintner,

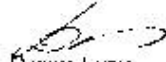
The Ministry of Environment of Lithuania is pleased to support the proposed UNDP/World Bank GEF Baltic Sea Regional Project concept.

This project will contribute to realisation of the Helsinki Convention's objective to restore the ecological balance of the Baltic Sea, through its support for management of living marine resources and control of non-point pollution loads, both of which are priority issues in the region. It will also provide an opportunity for Lithuania and the other recipient countries to strengthen their institutional and technical capacity, assisting them to manage the Baltic Sea ecosystem in a sustainable manner.

The proposed project has been developed in collaboration with the UNDP and the World Bank. Its activities and goals are in accordance with Lithuania's priorities for restoration of the Baltic Sea and the Government considers great importance the realisation of the project's objectives. We are pleased to recognise that the Helsinki Commission (HELCOM) will serve as the Executing Agency in co-operation with the International Baltic Sea Fisheries Commission (IBSFC) and the International Council for the Exploration of the Sea (ICES).

We also would like to inform that the Government of Lithuania can not take any financial and organisational commitments at this stage of the project. These issues will be discussed and agreed after the Terms of References for individual component are developed.

Sincerely,


Darius Lygis
Minister

Endorsed by GEF Focal Point

Ms. Indra Venckūnaitė

MINISTRY OF ENVIRONMENT OF THE REPUBLIC OF LITHUANIA

A. Jakšio 4/9
LT-2694 Vilnius
Lithuania

Telephone: +370 2 610558 623692
Fax: +370 2 220847 616515

Mieczysław S. Ostojski
Executive Secretary
Helsinki Commission



6 September 2000

Mr. Stephen Lintner
The World Bank
Environment Department
1818 H Street, N.W
Washington, D.C. 20433
U S A

Ref: Poland's letter of endorsement for the GEF BSRP

Dear Stephen,

Referring to your request concerning the letter of endorsement from Poland for the GEF BSRP this is to inform you of my informal discussions with Mr. Ponikiewski. He does not see any principal problems in getting such an endorsement but the administrative procedure will take two to three months as the letter should first be formally accepted by the Political Steering Committee. Therefore, I would suggest that you get in touch with Mr. W. Ponikiewski who is in New York at the moment attending the UN high level conference.

Sincerely,

Katajanokanlaituri 6 B
FIN-00160 Helsinki, Finland

phone: +358 (0)9 6220 220
fax: +358 (0)9 6220 2239

e-mail: helcom@helcom.fi
internet: <http://www.helcom.fi>

P.3/8

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**Ministry of Foreign Affairs
of the Republic of Poland**
Department for United Nations
Economic and Social Affairs

Aleja Szucha 23, 00-580 Warszawa, Poland
Tel.: (4822) 5239407, fax (4822) 5239197
DESONZ-4443-5-01

Warsaw, 14 February 2001

Dear Mr. Lintner,

In my capacity as GEF Political Focal Point I would like to endorse the project proposal entitled "Baltic Sea Regional Project". The project will contribute to the reduction of pollution from land-based sources into the Baltic Sea and to the improvement of the coastal zone management through introduction of ecosystem-based approaches for land and marine environmental management. The project will also improve cooperation of intergovernmental institutions of the Baltic riparian states dealing with various aspects of the Baltic Sea marine resources. The project is consistent with the objectives of the National Environmental Policy and enjoys support of the Polish Government.

Yours sincerely,

Wojciech Ponikiewski
GEF Political Focal Point

Mr. Stephen F. Lintner
Senior Adviser
The World Bank

TOTAL P.02



ГОСУДАРСТВЕННЫЙ КОМИТЕТ
РОССИЙСКОЙ ФЕДЕРАЦИИ
ПО ОХРАНЕ ОКРУЖАЮЩЕЙ СРЕДЫ

STATE COMMITTEE OF THE
RUSSIAN FEDERATION
FOR ENVIRONMENTAL PROTECTION

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Доктору Стефену Ф. Линтнеру
Старшему Советнику по окружающей среде
Отдел охраны окружающей среды МБРР
Вашингтон, США

Кас: Поддержка Регионального Проекта ГЭФ по Балтийскому морю

Уважаемый доктор Линтнер,

Действуя в качестве контактного лица Глобального Экологического Фонда (ГЭФ) в Российской Федерации, считаю возможным поддержать предложение Всемирного Банка и ПРООН относительно разработки Регионального проекта ГЭФ по Балтийскому морю.

Целью данного Регионального проекта является поддержка Балтийской Совместной Комплексной Природоохранной Программы Действий (СКП) - «Стратегического Плана Действий» для Балтийского региона, - путём укрепления регионального сотрудничества в управлении прибрежными и морскими комплексами в рамках целевых трансграничных мероприятий, направленных на (а) снижение воздействия диффузных источников загрязнения и (б) обеспечение устойчивого развития биоресурсов - проблематику приоритетного значения в регионе. Цели и деятельность Проекта отвечают первоочередным мерам Российской Федерации в Балтийском бассейне и удачно увязываются с задачами природоохранного сотрудничества на приграничных территориях.

Предлагаемый Проект призван способствовать также реализации на национальном уровне Конвенции по защите морской среды района Балтийского моря (Хельсинкской Конвенции 1992 г.), поскольку он предоставит странам-получателям возможность укрепить свои институциональные и технические возможности для внедрения разработанных в рамках Проекта механизмов управления устойчивыми экосистемами.

Одновременно Проект соответствует глобальной природоохранной политике ГЭФ, направленной на усиленный вклад в «снижение нагрузки на международные водные объекты» путем интеграции обоснованных стратегий управления земельными и водными ресурсами и обеспечения устойчивости развития.

Р.П. 17/699

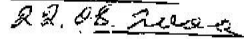
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В части схемы реализации Проекта считаем возможным возложить функции Исполнительного органа на Хельсинкскую Комиссию (ХЕЛКОМ) в сотрудничестве с Международной Балтийской Рыболовной Комиссией (МБРК) и Международным Советом по изучению моря (МСИМ).

С наилучшими пожеланиями,



А. М. Амирханов



А. В. Лысенко

Заместитель Председателя
Госкомэкологии России

Dr. Stephen F. Lintner
Senior Environmental Advisor
Environment Department
World Bank
18181 H Street N.W.
Washington, D.C. 20433
USA

Subject: GEF-Baltic Sea Regional Project - Letter of Support

Dear Dr. Lintner,

In my capacity as the GEF Operational Focal Point, I am pleased to support the proposed UNDP/World Bank GEF Baltic Sea Regional Project (BSRP).

The objective of this Regional Project is to support the Baltic Joint Comprehensive Environmental Action Program (JCEP), a "Strategic Action Plan" for the Baltic Sea region, through strengthening the regional cooperation on the management of Baltic Sea coastal and marine environments in targeted transboundary activities aimed at (i) mitigation of impacts from non-point sources of pollution, and (ii) increased sustainability of biological production, both being priority issues in the region. The activities and goals of the Project are consistent with the Russian Federation's priority actions in the Baltic Sea drainage basin and fully match to cross-border environmental cooperation objectives.

The proposed Project also will contribute to the national implementation of the Convention of the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention, 1992) as it provides an opportunity for the recipient countries to strengthen their institutional and technical capacity, and to utilize project-developed management tools for sustainable ecosystem management.

The Project is also consistent with GEF global environmental policy to significantly contribute to "reducing stress to international waters environment" by integrating sound land and water resource management strategies and supporting activities that promote sustainable development.

With regard to implementation arrangements, we endorse the proposal that the Helsinki Commission (HELCOM) will serve as the Executing Agency for the Project in cooperation with the International Baltic Sea Fisheries Commission (IBSFC) and the International Council for the Exploration of the Sea (ICES).

Sincerely,

A. M. Amirkhanov
Deputy Chairman
of the State Committee of the Russian Federation
for Environmental Protection

" 22 " August, 2000

State Committee of the Russian Federation
for Environmental Protection
Bolshaya Gruzinskaya str. 4/6,
GSP, Moscow 123812, Russia

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**ПЕРВЫЙ
ЗАМЕСТИТЕЛЬ МИНИСТРА
ПРИРОДНЫХ РЕСУРСОВ
РОССИЙСКОЙ ФЕДЕРАЦИИ
(МИР России)**

123812, ГСП, г. Москва
Большая Грузинская ул. 4/6

05.09.2000 № _____

Доктору Стефену Ф. Линтнеру
Старшему Советнику по окружающей среде
Отдел охраны окружающей среды МБРР
Вашингтон, США

О Региональном Проекте ГЭФ по
Балтийскому морю

Уважаемый доктор Линтнер,

Со ссылкой на письмо г-на А. М. Амирханова, Заместителя Председателя Госкомэкологии России, от 22 августа 2000 г. относительно поддержки Регионального проекта ГЭФ по Балтийскому морю, Министерство природных ресурсов Российской Федерации одобряет указанный Региональный проект, подготовленный в сотрудничестве с Всемирным Банком и ПРООН. Цели и деятельность Проекта полностью отвечают первоочередным мерам Российской Федерации, направленным на оздоровление Балтийского моря. - задаче, которой Правительство Российской Федерации придаёт большое значение.

Данный Проект будет способствовать также реализации обширных обязательств по Хельсинкской Конвенции 1992 г. путём совершенствования системы управления живыми ресурсами моря и усиления контроля загрязнения от диффузных источников. Оба этих направления имеют приоритетное значение в регионе. Проект также даст возможность Российской Федерации и другим странам-получателям укрепить свои институциональные и технические возможности для устойчивого управления экосистемой Балтийского моря.

Министерство природных ресурсов Российской Федерации поддерживает мнение Госкомэкологии России относительно схемы реализации Проекта.

С наилучшими пожеланиями,

Н. Н. Михеев

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Dr. Stephen F. Lintner
Senior Environmental Advisor
Environment Department
World Bank
18181 H Street N.W.
Washington, D.C. 20433
USA

Subject: GEF-Baltic Sea Regional Project - Letter of Endorsement

Dear Dr. Lintner,

With reference to the letter by Mr. A. M. Amirkhanov, Deputy Chairman of the State Committee for Environmental Protection (SCEP), dated August 22, 2000, concerning support to the proposed GEF Baltic Sea Regional Project, the Ministry of Natural Resources of the Russian Federation endorses the above mentioned Regional Project developed in collaboration with the World Bank and the UNDP. The Project's activities and goals are in full accordance with the Russian Federation's environmental priorities towards restoration of the Baltic Sea, the objective to which the Russian Government attaches great importance.

This Project will also contribute to realization of challenging commitments in the framework of the Helsinki Convention, 1992, through its support to management of living marine resources and control of non-point pollution loads, both of which are priority issues in the region. It will also provide an opportunity for the Russian Federation and other recipient countries to strengthen their institutional and technical capacity, assisting them to manage the Baltic Sea ecosystem in a sustainable manner.

The Ministry of Natural Resources supports the opinion of SCEP concerning Project implementation arrangements.

Sincerely,

N. N. Mikheev
First Deputy Minister
of Natural Resources of the Russian Federation

September 5, 2000

Ministry of Natural Resources
of the Russian Federation
Bolshaya Gruzinskaya str. 4/6,
GSP, Moscow 123812, Russia

