



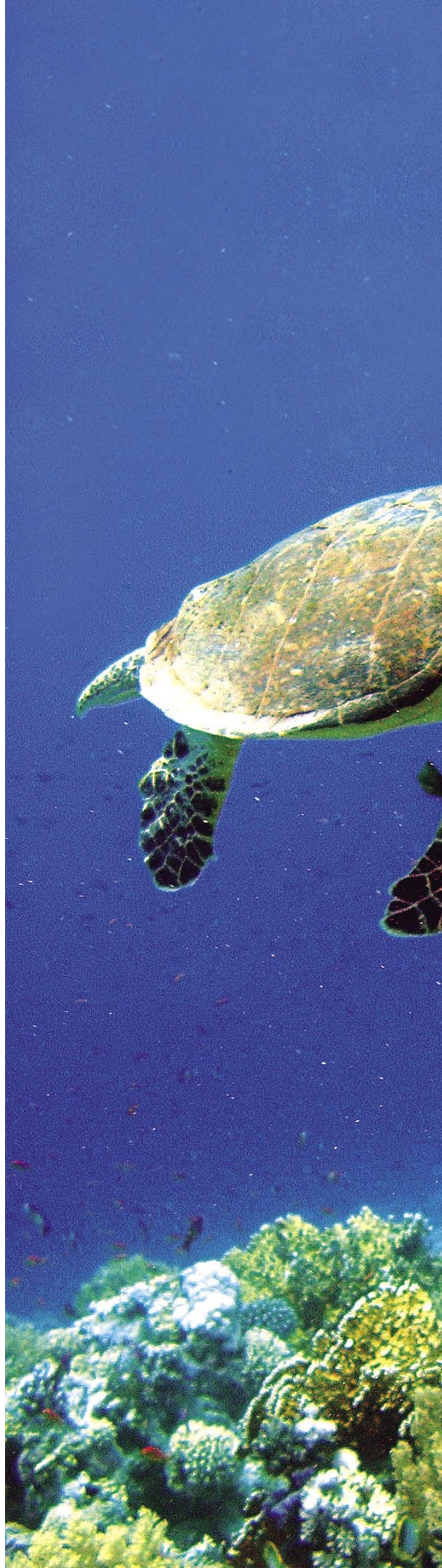
International Waters Programme

– Delivering results



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UNDP-GEF International Waters Programme – Delivering Results

For over 15 years, through its International Waters portfolio, UNDP-GEF has been providing support to assist over 100 countries in working jointly to identify, prioritize, understand, and address the key transboundary environmental and water resources issues of some of the world's largest and most significant shared waterbodies. This publication highlights the many important results delivered to date by UNDP-GEF's International Waters programme, including:

- Preparation and ministerial level adoption of 11 Strategic Action Programmes outlining national and regional commitments to governance reforms and investments; seven SAPs are now under implementation;
- Preparation and adoption of four regional waterbody legal agreements, some of which have already come into force – Lake Tanganyika, Pacific Fisheries, Caspian Sea (with UNEP support);
- The GEF-UNDP-IMO GloBallast programme is widely credited with playing a major role in helping catalyze adoption of an international Convention on Management of Ship Ballast Water and Sediments in 2004;
- Creation and/or strengthening of 14 multi-country marine/coastal, river and lake basin Commissions, including establishment of the world's first two Large Marine Ecosystem Commissions in 2006 (Benguela Current & Guinea Current LMEs);
- Successful Strategic Partnership with the World Bank, European Union and other partners on nutrient reduction in the Danube/Black Sea basin led to measurable reductions in nutrient and other pollution loads to the highly degraded Black Sea ecosystem; Black Sea is now showing clear signs of recovery including reduced nutrient levels, elimination of enormous anoxic dead zone, and increased species abundance.

Strategic Fit

UNDP-GEF's currently active IW portfolio totals about US\$ 200 million in GEF grant funding and leverages an additional US\$ 470 million in co-finance. The existing portfolio is strongly aligned with the new GEF4 Strategic Objectives and Strategic Programmes (SP):

- US\$ 62 million supports SP 1, Depleted Fisheries
- US\$ 51 million supports SP 2, Nutrient Overenrichment
- US\$ 65 million supports SP 3, Conflicting Water Uses
- US\$ 13 million supports SP 4, Reduce releases of Persistent Toxic Substances
- Plus US\$ 10 million in support of portfolio learning cutting across all four SPs

International Waters portfolio (by water type)			
Small Island Developing States	US\$	33.46	million
Large Marine Ecosystems	US\$	145.92	million
Lake & River Basins	US\$	130.90	million
Global	US\$	30.36	million
TOTAL	US\$	340.64	million
International Waters portfolio (by region)			
Africa	US\$	98.53	million
Arab States	US\$	47.44	million
Asia & Pacific	US\$	69.86	million
Europe & CIS	US\$	75.73	million
Latin America & Caribbean	US\$	18.51	million
Global	US\$	30.56	million
TOTAL	US\$	340.64	million

In addition, UNDP's planned 2007 IW submissions (approximatelyUS\$ 58 million) are strongly aligned with the new GEF-4 IW strategy, as follows:

- US\$ 19 million supports SP1, Depleted Fisheries
- US\$ 12.5 million supports SP2, Nutrient Overenrichment
- US\$ 23.4 million supports SP3, Conflicting Water Uses
- US\$ 3 million to Portfolio Learning

Partnerships

Forging and sustaining effective partnerships has been a key strategic focus of UNDP-GEF's International Waters programme since its inception. Currently 48 percent of the operational IW portfolio involves partnerships between two or more of the GEF IAs; 5 of 15 (or 33 percent) of planned 2007 submissions involve partnerships with other GEF agencies. UNDP also utilizes partnerships with other UN agencies (IMO, IAEA, IOC-UNESCO, etc.) and intergovernmental organizations such as the Forum Fisheries Agency, South Pacific Applied Geosciences Commission, Caribbean Environmental Health Institute and many others, to take advantage of the expertise, networks and legitimacy of these organizations in selected thematic areas and regions.

Looking Forward

Through support from GEF and other donors and partners, UNDP has established itself as one of the leading international organizations supporting the improved governance of transboundary waterbodies. In 2006, UNDP merged its GEF International Waters Cluster with UNDP's Water Governance Programme, as part of a process of fully integrating and coordinating all of UNDP's Water Governance activities under one umbrella. UNDP also prepared and started implementing its first overall Water Governance Strategy, which, in addition to Cooperation on Transboundary Waters, includes strategic priorities in the areas of Integrated Water Resources Management, Water Supply and Sanitation, Adaptation to Climate Change, and Global and Regional Advocacy on Water Governance. Through these and other initiatives, UNDP is firmly positioned to continue enabling effective water governance at all levels – local, national, regional and global.

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Integrated Management of the Benguela Current Large Marine Ecosystem (BCLME)

Overview

The BCLME is one of the world's most productive marine ecosystems, providing energy, materials, food and foreign exchange earnings for South Africa, Namibia and Angola. It also contributes to the region's natural beauty and abundant wildlife, which provides a substantial revenue from tourism. The BCLME's near-shore and offshore sediments contain rich mineral deposits, including diamonds, as well as oil and gas reserves. In the 60s and 70s unsustainable fishing led to the collapse of the South African and Namibian fishing industries. Overfishing by foreign fleets led to the declaration of 200-mile exclusion zones by South Africa and 1990 Namibia.

Current transboundary issues include regulation of oil exploration and offshore diamond mining; the migration of fish stocks across national boundaries; the introduction of invasive alien species, and the movement of pollutants or harmful algae from the waters of one country into another.

Project description

The BCLME Programme was designed to improve the structures and capacities of Namibia, Angola and South Africa to deal with their transboundary environmental problems and manage the BCLME in an integrated and sustainable manner.

The programme assists governments to manage their shared marine resources – fish, diamond mining and petroleum exploration – in an integrated and sustainable way. Key project areas also include environmental variability, coastal zone management, ecosystem health, socio-economics and governance. More than 75 different projects and activities are carried out by activity centres in the three countries, which work in close cooperation with the fishing, oil and gas, and offshore diamond mining industries.

The three activity centres are:

Luanda, Angola – Biodiversity, Ecosystem Health and Pollution; Swakopmund, Namibia – Living Marine Resources; and Cape Town, South Africa – Environmental Variability.

REGIONAL

COUNTRIES:

Angola, Namibia, South Africa

Partners: UNOPS, BENEFIT, DANCED, SADC

GEF Grant	US\$ 15.114 million
Co-finance	US\$ 23.559 million
Project Cost	US\$ 38.673 million

<http://www.bclme.org/>
Newsletter: Benguela Current News



CAPE GANNET - CLAUDIO VASQUEZ ROJAS

Legal

- The establishment of an interim Benguela Control Commission (BCC) in August 2006 as a prelude to a formal commission was a landmark step for the project since protection of the BCLME was being undermined by gaps in the legal frameworks of all countries – particularly the lack of laws regulating transboundary projects.
- Recent legislation, combined with capacity-building, has already begun to reverse threats – including declining fish stocks, deteriorating water quality, alien species invasion, habitat destruction and alteration – and has improved monitoring and management capacity. Recent productivity rates for fisheries have been significantly higher in the Eastern Cape compared with the 1990s.
- The project's legal initiatives have included a MARPOL (prevention of pollution) agreement and the introduction of exploratory fishing licenses for various stocks that were previously not regarded as fisheries target species. New legislation on aquaculture, including shellfish production, has been adopted by Angola and Namibia.

General

- An ecosystem approach to fisheries has been adopted by the fisheries institutions of the three countries to address transboundary concerns. Key results from 'shared stocks' projects are being presented to decision makers for incorporation into national fisheries management plans. Consultations are taking place on the shared management of sardine, hake and horse mackerel stocks.
- In Angola the Activity Centre for Biodiversity, Ecosystem Health and Pollution has worked to harmonize national environmental policies and legislation for marine mining, dredging and offshore petroleum exploration; has conducted research into land-based pollution, diamond mining and petroleum exploration, conducted near-shore and offshore species surveys and developed water and sediment quality guidelines.
- In Namibia the Activity Centre for Living Marine Resources has produced a 'State of the BCLME' ecosystem reporting system including oceanographic, biological and pollution components, reviewed institutional arrangements for artisanal fisheries, developed an aquaculture policy and worked to harmonize legislation and socio-economic policies affecting the BCLME.
- The Activity Centre for Environmental Variability in South Africa has developed operational capacity for monitoring algal blooms in countries bordering the BCLME to the north; developed a shellfish sanitation programme and helped upgrade communications systems.
- Working with regional industries has been an important aspect of the project. The fishing industry is working with the project to establish an ecosystem approach to sustained fisheries management; reduce by-catch, and develop an aquaculture policy. The diamond mining and petroleum industries are helping investigate and reduce the cumulative effects of their activities on the marine environment.

Training

- Bridging the skills gap between the different countries is a project priority commanding around 20 percent of project funds. Regional cooperation has been promoted between the region's scientific institutes and MSc courses are being introduced to universities along with regional and EU scholarship programs. Training has helped several project-associated personnel gain promotion to senior management positions in national and regional organizations.

FACT BOX

Fish provide almost 50 percent of animal protein consumed in Angola and fishing is the country's third largest industry, after oil and diamonds

Marine diamonds account for 10 percent of South Africa's production.

Oil provides 70 percent of Angola's GDP and 90 percent of exports.

South Africa has made many new oil/gas discoveries and deep water drilling is expected to increase.



Environmental Protection of the Rio de la Plata and Its Maritime Front: Pollution Prevention and Control and Habitat Restoration (FREPLATA)

Overview

The Rio de la Plata and its Maritime Front is a large river-marine system that receives the waters of the Rio de la Plata basin, the second largest river basin system in South America. Biological productivity in the project area is very high, particularly in fisheries, – many river, coastal and high seas species develop all or part of their life cycle in the project area. Shared fishing resources are very significant for the economies of both Argentina and Uruguay.

The main urban centers of both countries are located on the coasts of the Rio de la Plata and its Maritime Front, as well as leading economic activities. Industrial, agricultural and port activities, together with fisheries and tourism, are an important source of livelihood for a significant percentage of the population. The Rio de la Plata and its Maritime Front has become a sink for substantial urban, agricultural and industrial pollution, and suffers from habitat degradation due to dredging, sedimentation and the alteration of hydrological

processes caused by construction of numerous dams in the basin.

Other problems include: the development of the Paraná-Paraguay Waterway (Hidrovía) which will generate significant environmental impacts; intense exploitation of fisheries; an increase in toxic tides; the establishment of alien bivalve species; and the fact that the river's shallow waters require continuous dredging.

Project description

The project is assisting Argentina and Uruguay in preparing a Strategic Action Programme as a framework for addressing the most imminent transboundary issues and threats to the Rio de la Plata and Its Maritime Front. Preparation of the SAP was preceded by finalization of a Transboundary Diagnostic Analysis and other activities including: raising awareness of priority transboundary concerns; enabling policy, institutional and financial reforms; strengthening communications; identifying innovative management tools for SAP implementation; training activities; and an investment programme.

REGIONAL

COUNTRIES:

Argentina, Uruguay

Partners: CARP, CTMFM

GEF Grant	US\$ 5.682 million
Co-finance	US\$ 4.050 million
Project Cost	US\$ 9.732 million

<http://www.freplata.org/>(Spanish):
Newsletter: Bulletin (Spanish)



POLLUTED COASTLINE – CLAUDIO VASQUEZ ROJAS

General

- The project has completed the TDA, which has been formally approved by the bi-national government commissions from Argentina and Uruguay and by the project coordinating committee. More than 250 scientists and technicians from 34 Argentinian and Uruguayan research institutions contributed to the TDA preparation.
- A CD compilation prepared to complement the TDA contains more than 200 technical reports and publications. Most are also available on the project website.
- Eighteen small and medium size firms in five key industrial sectors are implementing Cleaner Production Practices with the support of national and local environmental agencies.
- A joint initiative by FREPLATA and a local NGO has resulted in 70 km² of coastal-marine area at Cerro Verde (on the Atlantic coast of Uruguay) being declared a Natural Protected Area.
- A high-level FREPLATA Inter-ministerial Commission with representation from five ministries and the Environment Secretariat of the provincial government has been established by executive resolution in Buenos Aires.
- The project has established a working group and pilot project for the study of red tides (algal blooms); a bi-national network for monitoring the quality of water used for recreation; and has established bi-national indicators for water and sediment quality.
- Two pilot projects – Increasing enterprise performance through cleaner production (Argentina) and Cleaner production and the reduction of pollution from industrial waste (Uruguay) have been established.

Legal

- A compilation of international agreements and legislation on the area's environmental protection is available on-line and on a CD. A report on legislation for biodiversity protection is being drafted.
- Studies have been made on legislation for the protection of the water environment from land-based sources of pollution; the legal status of the coastal zones; and the financial and economic arrangements for their protection.

Communications

- TDA findings have been publicized in a series of events, exhibitions, media presentations and publications, competitions, games and posters. Workshops and seminars on environmental communications methodology have been held for journalists and NGOs
- The FREPLATA website (in Spanish) has increased its audience from 27,167 hits (May 2003) to 500,620 hits (May 2005). A monthly average of 7,000 visitors spends more than 30 minutes at the site.
- Pilot networks for the exchange of information have been developed with the Oceanographic National Data Centres of Argentina and Uruguay. The project is also supporting the Uruguayan National Environment Agency in the digitization and geo-referencing of data on industries and industrial effluents.
- A 24-minute video on FREPLATA has been shown several times on TV, distributed to schools, NGOs and other stakeholders as well as being shown on board ferries and at ferry terminals.
- The project is working with the Government of the Province of Buenos Aires to incorporate environmental issues into the curricula of elementary schools.

FACT BOX

The National Port Administration of Uruguay has adopted protocols for ship waste management and approved a ballast water treatment plant project in the Port of Montevideo. This initiative falls within the Pollution Control and Prevention Strategy adopted by FREPLATA in 2005.

In Argentina the coastal area contains 45 percent of all industrial activity and 35 percent of its population, while in Uruguay it contains approximately half of its total population and most of its economic, industrial and port activities.



Development and Implementation of the Lake Peipsi/Chudskoe Basin Management Programme

Overview

Lake Peipsi (Estonian) or Chudskoe (Russian) is a large freshwater lake on the border between Estonia and Russia. The lake is used for fishing, transport and recreation, but suffers from severe environmental degradation.

Eutrophication – the major environmental threat to the lake – is largely produced by agriculture and is expected to increase with economic recovery. An increase in agricultural production without improvement in agricultural practices could affect the lake's ability to support important Baltic Sea area habitats for wildlife, especially birds.

Solving the lake's problems has been hampered by financial constraints; communication and language difficulties; and differences in water monitoring, environmental planning and management capacities between the two countries.

Project description

The project sought to develop and begin implementation of a Lake Peipsi/Chudskoe Basin Management Program that would include practical

recommendations for nutrient load reduction and prevention, as well as the sustainable conservation of habitats and eco-systems.

The project also sought to replace uncoordinated small-scale projects that would have otherwise been implemented separately on the Estonian and Russian sides without sufficient coordination, education, public information components, or attention to local stakeholder interests.

Major project components included: developing a management program and institutional arrangements for coordinating Estonian and Russian activities; assessing the lake's environmental state; preparing a coordinated program for monitoring and measures to reduce nutrient load. The project also sought to diversify regional economic activities; develop a public involvement plan; establish an institutional 'ecosystem' of organizations; and raise capacity among stakeholder groups. The project was implemented by the international NGO Peipsi Centre for Transboundary Cooperation (Peipsi CTC) a citizens' association working for the sustainable development of border areas.

REGIONAL

COUNTRIES:

Estonia, Russian Federation

Partners: Estonian Ministry of the Environment, Ministry of Natural Resources of the Russian Federation, and Peipsi Centre for Transboundary Cooperation

GEF Grant	US\$ 1.000 million
Cofinance	US\$ 6.280 million
Project Cost	US\$ 7.280 million

<http://www.peipsi.org/gef>



General

- A Peipsi Council has been created to better represent the municipalities of Lake Peipsi and improve communication with the Russian side of the lake. It includes representatives of public, business and the NGO sector in the region and also works to facilitate sustainable tourism and environment entrepreneurs, and cultural activities.
- A Lake Peipsi/Chudskoe Transboundary Basin Water Management Programme has been prepared and adopted by the Commission as a long-term strategy for sustainable development. It contains an action plan for the reduction of nutrients in the lake over the short (2-5 years) and long (10-20 year) time span.
- The Lake Peipsi/Chudskoe Transboundary Diagnostic Analysis focused on water quality, land use and biodiversity and included a nutrient load reduction programme and water management plans. Two research studies – one a feasibility study for water and ecological tourism in the lake region, and another on the impact of agriculture and the concept of ecological farming – were carried out for the lake basin.
- Cooperation with EU LIFE and TACIS projects in Estonia and Russia helped the project prepare its water management programme and nutrient reduction plan.
- An environmental infrastructure demonstration project to improve water quality and sewage facilities for a municipality of around 6,000 in Estonia demonstrated that the best available treatment technology could be used at an economical price.
- Several calls under the Small Grants Programme in Estonia and Russia contributed to the development of grassroots organizations and activities aimed at environmental protection.
- A comparative analysis carried out in Estonia and Russia found that the main barrier to water quality monitoring has been the incompatibility of data in the two countries' laboratories. Joint workshops were organized to help Russian monitoring experts boost their skills in biological monitoring and quality assurance.
- Several Estonian-Russian joint monitoring expeditions have been conducted. One, in 2004, produced an integrated picture of the ecological state of Lake Peipsi, based on the population structure and abundance of benthic invertebrates.
- The project was implemented by the international NGO Peipsi Centre for Transboundary Cooperation (Peipsi CTC) a citizens' association working for the sustainable development of border areas.

Communications

- The project conducted a wide-ranging publications programme, developed a trilingual website, formed strong links with Estonian and Russian journalists, organized public awareness seminars, a children's art competition and mounted exhibitions on the lake's ecology. An on-line 'virtual museum' was developed for better publicity and easy access to information.
- Strong links cultivated with Russian and Estonian journalists ensured that the future of the lake is frequently debated by the regional press, TV and radio.
- The project supported the printing of an environmental educational game – developed by a local school and Peipsi CTC – for distribution to other schools.

Training

- Training sessions have included environmental studies for secondary and elementary teachers; eutrophication, biodiversity and lake ecology as well as training on law, taxation and book-keeping to build NGO capacity, and other training in ecotourism, biological farming and environmental cooperation.

FACT BOX

Lake Peipsi/Chudskoe is the fourth largest lake (but the largest transboundary lake) in Europe, covering 3,500 sq km.

The main commercial fish of Lake Peipsi/Chudskoe are lake smelt, perch, ruff, roach, bream, pike, vendace and pikeperch.

Lake Peipsi/Chudskoe's annual fish catch (9,000-12,000 tons), exceeds that of all large lakes in North Europe.



Addressing Transboundary Environmental Issues in the Caspian Environment Programme

Overview

The unique ecological system of landlocked Caspian Sea is home to more than 400 endemic species, many (especially sturgeon) of economic importance and threatened by pollution, overexploitation, invasion of alien species and alteration of habitat. Increasing oil and gas production/exploration in the region poses new threat to ecosystem and human health/tourism incomes is threatened by unsafe drinking water, untreated sewage, unsanitary beaches and bathing waters. CEP is a regional initiative to address these problems. Invasive species are a particularly serious problem. *Mnemiopsis leidyi*, a comb jellyfish, was introduced by ship ballast water into the Black Sea around 1980, where it multiplied rapidly causing the collapse of the fishing industry. It has now entered the Caspian Sea through the Volga-Don Canal. Twenty years ago 1,000 tons of sturgeon was caught each year in the Caspian Sea – but in January 2006 CITIES warned that sturgeon fish resources were at their lowest recorded level and that if the current trend continued, the fish could become extinct within a few years.

Project description

The Caspian Environment Programme (CEP) is a regional umbrella programme aiming to halt the deterioration of environmental conditions of the Caspian Sea and to promote sustainable development in the area. The need for joint protection and management of the Caspian environment and its resources has been an ongoing issue for the Caspian States particularly since the 1991 collapse of the Soviet Union. The CEP was launched in 1998 to meet a long desire for regional cooperation, expressed through a number of regional agreements. In its current phase CEP activities focused on assisting littoral countries implement the Caspian Strategic Action Programme. GEF support has targeted priority areas such as biodiversity protection – including mitigation of invasive species impact – as well as pollution monitoring and control. The programme has also supported regional legal reform and institutional capacity building aiming at environment protection.

REGIONAL

COUNTRIES:

Azerbaijan, Iran, Kazakhstan,
Russian Federation, Turkmenistan

Partners: UNOPS, UNEP, World Bank, EU
GEF I up to 2003

GEF Grant	US\$ 8.341 million
Co-finance	US\$ 9.976 million
Project Cost	US\$ 18.317 million

GEF II Ongoing

GEF Grant	US\$ 6.026 million
Co-finance	US\$ 25.800 million
Project Cost	US\$ 31.826 million

<http://www.caspianenvironment.org>



Legal

- The Framework Convention on the Marine Environment of the Caspian Sea (the Tehran Convention) has been ratified by all countries and came into force on August 12, 2006 – which has been designated the region's annual Caspian Day. Four Protocols dealing with Land Based Sources of Pollution; Emergency Response to Oil Spills; Biodiversity Protection; and Transboundary EIA have been developed. Work has begun on a Fisheries Protocol.
- Kazakh Parliament approved a new law in May 2005 to regulate offshore oil operations and make production-sharing agreements.
- A Regional Review of Legislation on Invasive Species has been conducted.

General

- All CAP countries have established national inter-ministry committees/bodies to facilitate inter-sectoral coordination. Public Participation Advisors have been appointed in all five countries and a public participation strategy has been regionally approved. Industry representatives and NGOs participate in all major events.
- On-going dialogue with the oil and gas industries has encouraged data-sharing agreements and may lead to long-term environmental partnerships. Industry co-funding has already been obtained for two major workshops, an aerial survey of seals, a contaminants cruise, biodiversity strategy development, oil spill contingency planning and creation of a biodiversity center.
- Twelve Matched Grants and 32 Micro Environment Grants totaling close to US\$ 400,000 have been made for projects focusing on fisheries, soil cleansing, reforestation, water supply for small communities, pollution reduction and environmental awareness.
- Four POPs reduction projects worth over US\$ 200,000 are under implementation.
- Agreement has been reached on initiation of a regional Pollution Monitoring Programme and a Biodiversity & Environment Monitoring Programme.
- The CEP has created and/or strengthened eleven Caspian Regional Thematic Centers and five Regional Advisory Groups.
- During its first four years (July 1998 to October 2002) the CEP established and prepared a management structure; a Transboundary Diagnostic Analysis (TDA); National Caspian Action Plans (NCAPs); Strategic Action Programme (SAP); Biodiversity Strategy and Action Plan (BSAP); Priority Investment Portfolio Project (PIPP); a Regional Cooperation Plan for Oil Spill Preparedness and drafted the Framework Convention for the Protection of the Marine Environment of the Caspian Sea.
- The IMO is providing technical assistance to the project to assessing the extent of aquatic species transfer through ship's ballast water into and out of the Caspian Sea and study appropriate control measures.
- The CEP has collaborated with EU regional projects on sustainable fisheries and coastal communities.

Communications

- The CEP has built up its website resources and issues a monthly e-bulletin. The extensive e-library includes databases, a searchable library of around 900 documents, meeting reports, maps and GIS data, a photolibrary as well as booklets, brochures and educational materials.
- CEP organized an Environmental Journalism Workshop which was attended by 30 journalists.

FACT BOX

The northern part of the Caspian Sea is home to 33 mammal species, 289 plant species and 256 bird species. 120 species of migrating birds, sometimes even flamingos, winter on the eastern shores.

Over 100 different kinds of fish live in the Caspian. The Caspian is home to seven different sturgeon species, some of which are found nowhere else in the world. All told the sea holds 90 per cent of the world's sturgeon.

The endangered Caspian seal and the magnificent white tailed sea-eagle, are both native to the Caspian Sea.



Nile Transboundary Environmental Action Project (NTEAP)

Overview

The Nile River, with an estimated length of over 6800 km, is the longest river flowing from south to north and crosses over 35 degrees of latitude. The Nile Basin boasts a range of rich endowed ecosystems that include mountains, tropical forests, woodlands, savannas and high and low altitude wetlands. It is home to about 160 million people, the majority of whom live in rural areas and depend directly on land and water resources for shelter, income and energy. Six of the ten Nile basin countries are among the world's poorest with a GDP per capita of less than US\$250. Over-dependency on, and unsustainable use of the region's natural resources have created a host of environmental problems, which in turn stifle local efforts to reduce poverty and stimulate sustainable economic growth.

Environmental problems in the Nile Basin include soil erosion, degradation of agricultural lands, desertification, loss of forests and wetlands, overgrazing, declining water quality, over-exploitation of fisheries, and eutrophication of lakes.

Project description

The Nile Transboundary Environmental Action Project (NTEAP) supports development of a basin-wide framework for actions to address high priority transboundary environmental issues within the context of the Nile Basin Initiative's Shared Vision Programme. It is the largest of seven projects taking place under the programme.

The main objective of the project is to provide a strategic environmental framework for managing transboundary waters and environment challenges. It aims to improve the understanding of the relationship of water resources to development and environment; provide a discussion forum for stakeholders; enhance basin-wide cooperation and environmental awareness; and build the environmental management capacities of the basin-wide institutions.

Water quality is a project priority and this component is addressing the differences between country monitoring capacity, weak implementation of laws and the lack of tax rebates for clean environmental practices.

REGIONAL

COUNTRIES:

Burundi, Democratic Republic of Congo, Egypt, Ethiopia, Kenya, Rwanda, Sudan, UR Tanzania, Uganda and Eritrea (observer status)

Partners: World Bank, UNOPS, Nile Secretariat

GEF Grant	US\$ 8.80 million
Co-finance	US\$ 84.10 million
Project Cost	US\$ 92.90 million

<http://www.nileteap.org/>

Newsletter: The Nile Environment (Quarterly)



General

- National Water Quality Monitoring Baseline reports, have been finalized for all the Nile riparian countries. Water quality parameters have been agreed and 44 sampling station locations have been agreed. A training module has been prepared to help boost country capacity.
- The project contributed to the development of the National Plan for Environmental Management in Post-Conflict Sudan. Investigating the true state of the environment and mainstreaming environmental issues into national planning have been prioritized.
- In collaboration with national and international agencies, the project contributed to the designation of the 30,000 sq km Sudd wetlands in southern Sudan, which support a rich animal biodiversity as well as thousands of birds, as a Ramsar site in 2005.
- National Steering Committees for the micro-grants component, were formed at either regional or national levels and provided national ownership to the programmes and assisted in formulating strategies, action plans and project proposals.
- A River Basin Model is being developed to increase understanding of the Nile's hydrological behaviour and the links between environment and development.

Community

- The project has supported 118 micro-grant projects with a total commitment level of US\$ 2.5 million approved, and US\$ 1.2 million disbursed, across all nine riparian countries. High-level commitment to the project was shown by the presence of the President of Burundi at the initiation of a micro-grant project.
- The project has used special World Environment Day activities – often directed at populations with limited access to traditional media – to increase public participation and community involvement. In Kenya a Nairobi-Kisumu caravan has conducted awareness-raising events in remote areas along its route. Other community activities have included environmental exhibitions, clean-up programmes, tree planting, parades and performances, and the distribution of awareness raising-materials.

Education and communication

- The Environment Education and Awareness component accomplished extensive activities in all of the NBI countries. EE&A national and regional working groups, university lecturers' network, journalists' network and practitioners' network were established and conducted a series of national and regional meetings. EE&A materials production training and schools environmental activities assessments were also conducted. The component also launched a university students exchange programme and students award scheme.
- A multimedia CD-ROM Nile River Awareness Kit was launched in 2006, with the assistance of an extra budgetary resource of US\$ 400,000 provided by the Canadian Space Agency, to cover the costs of production of the CD, Earth Observation products and other activities.
- The ceremony of the first Nile Transboundary Environmental award scheme for schools was held in conjunction with the Nile Council of Ministers meeting in May 2006. This scheme has now become an annual event and focuses on one of the key environmental threats or values of the Nile basin as identified in the TDA.
- A special Nile university course is under development, although a student and graduate exchange programme already operates in universities, along with an MSc/PhD scholarship programme run by the Applied Training Project of the NBI.

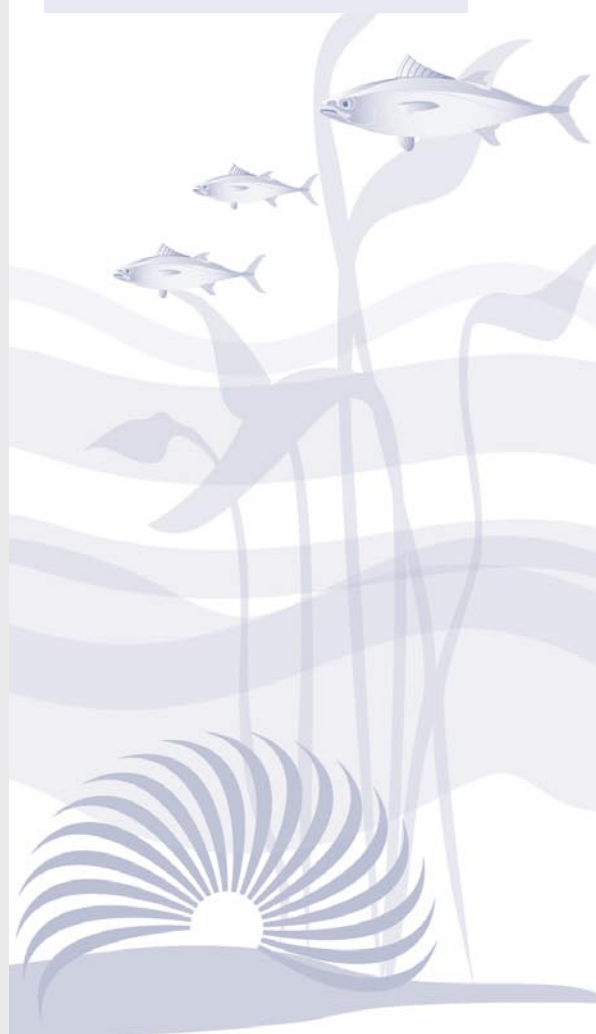
Legal

- The project has worked to address weak implementation and enforcement of water quality regulations and the lack of tax rebate incentives for clean environmental practices.

FACT BOX

The total area of the Nile basin represents 10.3 percent of the area of the African continent and spreads over ten countries.

The Nile is fed by two main river systems: the White Nile, with its sources on the Equatorial Lake Plateau (Burundi, Rwanda, Tanzania, Kenya, Democratic Republic of Congo and Uganda), and the Blue Nile, with its sources in the Ethiopian highlands. The Nile's sources are located in humid regions, with an average rainfall of over 1000 mm per year. It travels through increasingly arid lands before reaching Egypt, where precipitation is less than 20 mm per year.



Senegal River Basin Water and Environmental Management Project

Overview

The 1,800 km Senegal River is the second longest river in West Africa. Its river basin covers around 300,000 km² and is home approximately 3.5 million people, 85 percent of whom live near the river. Population growth rate is high, partly due to in-migration. The upper basin has remained largely an area of subsistence agriculture based on shifting cultivation. In the valley and the delta, traditional production systems (flood-recession cropping, livestock raising, fishing) and the practice of modern irrigation with water pumped from the river exist side by side.

The river has two large dams along its course. Before they were built the river had markedly different hydrological conditions. Fluctuations occurred seasonally in water level and quality in addition to the annual or cyclic episodes of dry and wet conditions. These fluctuations, characterized by erratic flows and episodic inundation, prevented any single species from dominating the ecology and contributed to a real diversity of habitats and species.

Construction of the dams, and their accompanying infrastructure, contributed substantially to making the ecosystem more uniform and provided the habitat for aquatic weeds and disease vectors. Current threats to the river's ecology stem mostly from existing and proposed irrigation and hydropower developments.

Project description

The objective of this project is to provide a participatory strategic environmental framework for the environmentally sustainable development of the Senegal River basin and to launch a basin-wide cooperative program for transboundary land and water management. The project is being jointly implemented by UNDP and the World Bank working with OVMS – the basin authority.

The UNDP component includes: training and workshops to strengthen national and local institutional capacity; community-based microgrant-supported activities; and increasing the number of stakeholders and communities involved and trained in local and transboundary water resource management issues.

REGIONAL

COUNTRIES:

Guinea, Mali, Mauritania, Senegal

Partners: Organisation pour la Mise en Valeur du Fleuve Sénégal

GEF Grant: US\$ 7.250 million
Co-financing: US\$ 39.330 million
Project cost: US\$ 46.580 million

<http://www.omvs.org/index.php> (French)



FISHERMEN/MARINE PHOTOBANK

General

- Community participation has been facilitated by the setting-up of 28 Local Coordination Committees and four National Coordination Committees in the four participating states.
- Working in close collaboration with the OMVS Observatory of the Environment, the project has upgraded data on the river valley hydro-system. A number of important studies have also been carried out on the status of natural resources in the Guinean part of the basin, its cartography, existing water resources monitoring system and bush fires.
- A participatory process was used to draw up a Transboundary Diagnostic Analysis (TDA) for each of the four member countries. Based on these national TDAs, a region-wide analysis was carried out and validated by the technical departments of the member countries before submission to the World Bank for approval.
- Micro-finance has been made available to communities in the basin to support environmental degradation control.

Training

- Capacity building is one of the project's prime objectives and a number of workshops, designed for OMVS experts and national and local technical departments, have been organized. Workshop topics included water resources management, water and environment legislation in the four member states, water management tools and software, project management, and techniques for social advocacy.

Community

- Information and awareness-raising activities have been carried out across the four countries directed at communities in the basin, civil society and the scientific community. IUCN has supported the project's public participation component.
- Networks have been established and information and awareness-raising drives have been organized since the project's second year of operations.

Legal

- Guinea's admission to the OMVS became effective with the signing of the Accession Treaty in March 2006.

FACT BOX

The Senegal River basin, located in West Africa, covers 1.6 percent of the continent and spreads over four countries.

Fishing, in terms of the income of the work force that it employs, is undoubtedly the largest economic activity in the Senegal River basin after agriculture, especially for populations living near the river in the valley and the delta.



FISHERMEN - SENEGAL © ISABELLE CONTARD - FOTOLIA

Partnership interventions for the implementation of the Strategic Action Programme for Lake Tanganyika

Overview

Lake Tanganyika is Africa's second-largest (after Lake Victoria) inland fishery and provides food and income, as well as water, transport and other resources for around 10 million people. However, Lake Tanganyika's unique ecology faces many cross-boundary threats including: soil erosion, pollution; over-fishing; and oil and mineral exploration. The most immediate threats are excessive loads of sediments and nutrients caused by erosion in the watershed; industrial and urban pollution, including boat discharges; and intensive fishing with inappropriate methods. As the lake is a closed basin, it takes 7,000 years for water to be flushed through evaporation, making any pollution permanent in relation to human lifetimes. Invasive alien species and uncontrolled development add to the lake's problems.

Project Description

This project is guided by the conclusions drawn in the TDA and SAP produced by the Lake Tanganyika

Biodiversity Project (1995-2000) and the Lake Tanganyika Framework Fisheries Management Plan developed by FAO/FINNIDA/AGFUND. The TDA identified the main transboundary problems facing the riparian states as: unsustainable fisheries, increasing pollution; excessive sedimentation and habitat destruction.

In order to help the states develop an effective, sustainable system for managing and conserving Lake Tanganyika's biodiversity the LTBP also prepared a draft Convention on the Sustainable Management of Lake Tanganyika, setting out the legal rights and duties of the four states. The Convention was finalized and signed during the second GEF planning phase project: "Lake Tanganyika Management Planning Project" (LTMPP, 2002-2004) and entered into force in September 2005. LTMPP also supported the preparation and establishment of the Lake Tanganyika Management Authority (LTA), a formal permanent body to coordinate and monitor the management of the lake and its basin.

REGIONAL

COUNTRIES:

Burundi, DR Congo, Tanzania UR and Zambia

Partners: UNOPS, NEX, AfDB-NDF and FAO GEF

Grant	US\$ 13.500 million
Co-finance	US\$ 43.500 million
Project Cost	US\$ 57.000 million



HIPPOPOTAMUS

General

- GEF-funded components of the Lake Tanganyika Integrated Management Programme include the establishment of the Lake Tanganyika Authority; creating demonstration sites for sustainable catchment management in DRC, Tanzania and Zambia; supporting wastewater treatment plants in Burundi and Tanzania; and establishing, in partnership with IUCN, a lake monitoring system.
- Co-financing from AfDB, FAO and NDF will support a pilot fisheries projects, construction of a new wastewater treatment plant in Tanzania, the establishment of local development funds, assisting the development of community infrastructure as well as capacity-building among local and national stakeholders.
- The project will address priority issues described in the TDA including: excessive fishing in the littoral and pelagic zones; introduce measures to manage the ornamental fish trade; future mining operations and to prevent and control major marine accidents. It will promote sustainable agricultural practices to reduce non-point source pollution especially sedimentation. The project will also undertake specific measures to counteract deforestation; and build national capacity to support parks management.
- The project is also investigating the effects of climate change on the Lake Tanganyika environment, a subject not covered by LTBP's TDA or SAP. Recent studies in Science and Nature suggest that fish catches in the lake may be falling due to changes in water processes, plankton levels and fish stocks caused by increased surface water temperatures. The project will update the SAP to include action on climate change adaptation, as it affects catchment management, deforestation issues, lake monitoring, as well as fisheries.
- Fishing communities are also being encouraged to change to more sustainable fishing methods and practices, to develop alternative sources of income; and to increase attention on monitoring and stock and catch data.

Lake Tanganyika Biodiversity Project (LTBP)

- As well as the TDA, SAP, Convention and progress towards the establishment of a lake management authority the LTBP conducted special studies in biodiversity, pollution and sedimentation; encouraged alternative livelihoods or changes in current practices which may be detrimental to long-term biodiversity conservation; and helped improve physical assets such as transport accommodation, sanitation and education services.
- The project helped establish a GIS system as a key resource for integrating geographical activity and providing an interface between scientists and the decision-makers. It allowed decision-makers were able to see how pollution, fishing practices and sedimentation affect the distribution and quality of biodiversity in the lake, and get an overview of the lake's resources and interactions.
- The LTBP recruited Training, Education and Communication Coordinators (TECC) in each riparian country. Activities included on-the-job training across all technical components and disciplines. LTBP also sponsored 12 students from African universities to join 12 American students each year in the Nyanza Project, an intensive six-week academic training experience on geology, limnology and biology of the African Great Lakes.
- LTBP created a project website at www.ltbp.org/OVIEW.HTM and published Lakeside, a quarterly newsletter.

FACT BOX

Lake Tanganyika is the largest body of water in Africa, holding almost one-sixth of the world's freshwater resources and the second deepest lake in the world. It has the greatest biodiversity of any lake, with more than 2,000 species of fish, invertebrates and plants, half of them unique to the Tanganyika ecosystem. There are three National Parks, several protected areas and two Ramsar sites border Lake Tanganyika.



Combating living resource depletion and coastal area degradation in the Guinea Current LME through Ecosystem-based Actions

Overview

The Guinea Current Large Marine Ecosystem (GCLME) is an important global resource. Ranked among the most productive coastal and offshore waters in the world, the GCLME includes vast fishery resources, oil and gas reserves and precious minerals, has a high potential for eco-tourism and is an important reservoir of globally significant marine biodiversity.

Around 40 per cent of the region's 280 million inhabitants live in coastal areas and are dependent on the GCLME for food security and exports. Almost all major cities, harbours, airports and other infrastructure are situated on or near the coast. Communities use rivers for transport and mangroves as a source of firewood, fish smoking, building material, salt production, oyster harvesting and medicinal plants. However the GCLME's habitats and living resources are threatened by human activities including overexploitation of fish resources, pollution from land-based sources and degradation of coastal areas through erosion.

Most countries in the region are oil producers and some (Angola, Cameroon, Gabon and Nigeria) are exporters. Offshore platforms, import/export terminals and refineries create oil pollution. Untreated sewage, agricultural and industrial waste products also damage the environment.

Project description

The project was designed as an ecosystem-based effort to assist countries adjacent to the GCLME to prevent pollution, conserve biodiversity and achieve environmental and resource sustainability. Activities included institutional strengthening, water quality and ecological monitoring, pollution control, setting up demonstration sites and developing institutional mechanisms.

The project's long-term objective was to facilitate changes in human activities in different sectors of national life to ensure that the GCLME and its multi-country drainage basins can support sustainable regional socio-economic development.

REGIONAL

COUNTRIES:

Angola, Benin, Cameroon, Congo, Democratic Republic of the Congo, Côte d'Ivoire, Gabon, Ghana, Equatorial Guinea, Guinea, Guinea-Bissau, Liberia, Nigeria, Sao Tome and Principe, Sierra Leone and Togo

Partners: UNEP, UNIDO, NOAA, Norway, NOAA, private sector

GEF Grant	US\$ 20.810 million
Co-financing	US\$ 37.870 million
Project Cost	US\$ 58.680 million

<http://www.gclme.org>



MANGROVES

General

- An Interim Guinea Current Commission, 16 national inter-ministry committees and five Regional Activity Centres have been established and are fully functional. Countries have formed National Steering Committees to guide Integrated Coastal Area Management Plans.
- Country coast profiles have been published and Integrated Coastal Area Management Plans adopted by all participating countries. Countries have formed National Steering Committees to guide these plans.
- Port reception facilities, which will enhance ballast water management capacity are being established in maritime ports in Nigeria, Ghana and Cote D'Ivoire.

Public/private partnerships have been formed to reduce effluent discharges and aid restoration of the Lagos lagoon, Nigeria. Public-private partnerships have also been formed to conduct two projects – one that aims to use municipal solid waste for fertilizer production in Nigeria; and the other a waste oil reception facility in Tema Port, Ghana.

- A new mangrove reserve has been established in Calabar, Nigeria and additional mangrove areas are being delineated in Cameroon and Angola for adoption as reserves. Coastal communities have begun mangrove restoration as a result of awareness-raising campaigns conducted by NGOs.
- A Marine Protected Area has been established in Cotonou, Benin Republic.
- Plans have been developed for introducing novel low-cost technology options – including the use of settling pits in Ghana for sewage treatment and community sorting of domestic waste for recycling.
- A group of national GIS experts has been established to help develop a regional GIS database for data archiving and sharing.

Legal

- Regional effluent regulations and standards have been established for industries in coastal areas. A management programme for reduction, recovery and recycling of municipal and industrial solid waste, which proved cost-effective in Ghana, is being extended to other GCLME countries.
- A regulatory policy – with closed and open seasons – has been adopted to conserve fisheries. Under the Accra Declaration on Environmentally Sustainable Development of the GCLME (adopted in 1998 during this project's pilot phase) the licensing of distant water industrial fishing fleets has been halted, other than for tuna vessels, and some jointly-owned Angola/Spanish vessels. In the past large commercial offshore fishing fleets from the EU, Eastern Europe, Korea and Japan have placed extreme pressure on fisheries resources.
- Common industrial effluent standards for industries in the coastal area are being adopted and enforced in some countries.

Training

- Around 900 participants have taken part in 40 technical assistance and capacity building workshops and a regional network of 300 technical experts has been formed. More than 100 environmental experts have been trained in drafting and implementing common standards, policies and legislation.

FACT BOX

Most of the major cities in the countries bordering the Gulf of Guinea are located along the coast. Numerous industries also operate in this area. The Gulf of Guinea is rich in living marine resources and it is estimated that around one million metric tons of fish are caught annually, of which about a third is exported. Many of the important commercial and artisanal fish species in the Gulf of Guinea use the coastal waters, lagoons and mangroves for spawning and as nursery grounds.



Reducing Environmental Stress in the Yellow Sea Large Marine Ecosystem

Overview

Of the 64 large marine ecosystems in the world's oceans, the Yellow Sea is one of the most significantly affected by human development. It is bordered by land on three sides and many people depend on the ecosystem for food security and revenue from economic development.

Bordering countries share common problems with pollution from municipal and industrial sites as well as agriculture. Degradation of the environment is shown by reduced fish catches; shifts in species biomass (partly caused by over-fishing); red tide outbreaks, degradation of coastal habitats (caused by extensive coastal development) and climate variability.

The Yellow Sea LME is also an important global resource supporting substantial populations of fish, invertebrates, marine mammals, and seabirds, many of which are threatened by both land and sea-based sources of pollution as well as loss of biomass, biodiversity, and habitat resulting from extensive

economic development in the coastal zone, and by the unsustainable exploitation of natural resources.

Project description

The objective of the project is to promote ecosystem-based, environmentally sustainable management and use of the Yellow Sea and its watershed; reduce development stress; and promote sustainable use of the ecosystem.

In order to achieve its objectives the project is preparing a Transboundary Diagnostic Analysis (TDA), National Yellow Sea Action Plans and a regional Strategic Action Programme (SAP). The project will initiate and facilitate implementation of the SAP, which will consist of a series of legal, policy and institutional changes and investments to address the priority transboundary issues identified in the TDA.

The project will also address the lack of a formal infrastructure to bring about international collaboration and cooperation in monitoring and research activities on shared marine resource issues.

REGIONAL

COUNTRIES:

Republic of Korea, and China

Partners: UNOPS

GEF Grant	US\$ 14.295 million
Co-finance	US\$ 20.992 million
Project Cost	US\$ 35.287 million

<http://www.yslme.org/>
Newsletter: YSLME PMO Newsletter



General

- The project has conducted consultations, consensus building, public participation exercises, issue and problem definition and analysis to prepare a full Transboundary Diagnostic Analysis which will guide the Strategic Action Programme, and National Strategic Action Plans.
- Memoranda of Understanding have been signed with the Yellow Sea Eco-region Planning Programme, the Korea Ocean Research and Development Institute (KORDI), Wetlands International China Office, and the Marine Stewardship Council.
- A joint workshop between the YSLME Project and the Yellow Sea Eco-Region Planning Programme in 2005 produced a checklist of critical indicator species and a provisional GIS map of the ecologically important areas for the Yellow, Bohai and East China Seas.
- Regional Working Groups have been set up to guide the project's key components – ecosystem, investment, pollution, biodiversity and fisheries – and the Regional Scientific and Technical Panel have been established.
- Regional guidelines for pollution monitoring have been drafted. These include suggestions for areas to be monitored, parameters to be monitored; collaboration with current national monitoring programmes; and recommendations for future regional monitoring activities.
- The project has worked with Globallast programme on the introduction of alien species, including those introduced for mariculture.
- Several Small Grants Projects have begun implementation with focus on 'education for coastal communities'. Six institutions have been awarded funds based on their successful proposals.

Communication

- The Yellow Sea Public Awareness and Communications Strategy identifies nine target stakeholder groups for whom key messages and expected outcomes have been defined. However, the strategy also seeks to target the communities living around the Yellow Sea coastal areas, especially those using its watersheds and resources, as well as the greater global community who are indirect stakeholders of the ecosystem.
- Training events, workshops and programmes have been for decision-makers, community trainers and local government officials in areas such as small grants, project documentation and fund-raising.
- Competitions, exhibitions, workshops and a 'call to action' for the region's youths have been held to increase public awareness. Multi-language information has been made available through print and electronic media. Brochures, posters and promotional items have been distributed.

Legal

- The Yellow Sea Project is working to encourage national and regional commitments to international conventions and agreements, such as the United Nations Convention on the Law of the Sea (UNCLOS), the FAO Code of Conduct for Responsible Fisheries, and the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities.

Training

- Training programmes have been held on pollutant sampling and analysis, and on public awareness.
- An internship programme has been initiated, designed for interns to learn about international project management and to transfer knowledge back to their institutes, thereby strengthening national institutions and capacity.

FACT BOX

Approximately 600 million people (10 percent of the population of the entire globe) live in the area that drains into the Yellow Sea.

Of the 64 large marine ecosystems in the world's oceans, the Yellow Sea is one of the most significantly affected by human development..



Strengthening the Implementation Capacities for Nutrient Reduction and Transboundary Cooperation in the Danube River Basin

Overview

The Danube River is the second largest river in Europe (2,780 km) draining an area of 817,000 km² before discharging into the Black Sea. Its delta is the second largest natural wetland in Europe. However, unsustainable use of water resources and the release of wastewater into the river without adequate treatment have created problems of water quality and quantity, including significant environmental damage, with resulting threats to public health and quality of life. Pollution is another serious problem, with a high volume of nutrients – mainly from agricultural fertilizers, household projects and urban sewage. Pollution in the Danube also increases Black Sea problems such as eutrophication, algal blooms, and contamination. A large number of dams, dikes, locks and other hydraulic structures have been built on the Danube with the result that some 80 percent of its wetlands and floodplains have been lost since 1900, threatening the region's bird and fish habitats and compounding the risk of flood damage.

Project description

The overall goal of the project (also known as the Danube Regional Project, or DRP) is to improve the river basin environment and manage its natural resources. Particular attention is paid to achieving sustainable ecological effects within the DRB and Black Sea area, including reducing nutrient and toxic loads to levels which will allow ecosystems to recover to 1960s conditions.

The ongoing DRP is one of three components of the US\$ 95 million GEF Strategic Partnership for Nutrient Reduction in the Danube/Black Sea Basin. This is composed of three complementary parts:

- .The Black Sea Ecosystem Recovery Project – implemented by UNDP in cooperation with the Black Sea Commission and with UNEP assistance;
- .The Danube Regional Project – implemented by UNDP in cooperation with the International Commission for the Protection of the Danube River (ICPDR); and
- .The GEF/World Bank Partnership Investment Fund for Nutrient Reduction – focused on single country nutrient reduction investments.

REGIONAL

COUNTRIES:

Czech Republic, Slovak Republic, Hungary, Slovenia, Croatia, Bosnia-Herzegovina, Bulgaria, Romania, Moldova, Ukraine, Serbia and Montenegro

Partners: UNOPS, ICPDR

GEF Grant	US\$ 12.240 million
Co-finance	US\$ 12.878 million
Project Cost	US\$ 25.118 million

<http://www.undp-drp.org/drp/intro.html>
On-line newsletter DRP: Updates on the project web-site



GREAT WHITE PELICAN © STÉPHANE CHÉRIE - FOTOLIA

General

- DRP assistance has resulted in legislative reforms in seven Danube EU countries which now comply with the relevant nutrients/toxics legislation of EU Water Framework Directive (EU WFD). The project has also helped four non-EU countries achieve voluntary compliance.
- The project reports a reduction in nitrogen emissions to the Danube of 4,915 t/y, of phosphate emissions 977 t/y (projects completed in 2003); and reductions of nitrogen emissions of 10,562 t/y, and phosphate emissions 2,224 t/y (projects completed by 2005).
- Eight family farms in Serbia served as demonstration projects to test 15 Biodiversity Action Plans (BAPs). It was estimated that their application reduced the release of approximately 14 tonnes of nitrogen, 2 tonnes of phosphorus and 160 kg of pesticides per year. The dissemination of the pilot project results reached thousands of farmers in all seven lower Danube Basin countries.
- Wetlands restoration and protection projects involving 4,400 hectares have been implemented at pilot sites in Slovakia, Romania and Croatia.
- The EU highlighted the Danube/Black Sea partnership as a model for transboundary water governance in its 2005 report to the UN Commission on Sustainable Development.
- The project has supported the enhancement of a system for accident/emergency warning and prevention of accidental pollution.
- The project has helped the ICPDR and Black Sea Commission develop monitoring systems for process, stress reduction and environmental indicators. It also supported the development of a prototype Danube GIS and improvement of the warning systems for accidents, emergencies and pollution spills.
- The DRP carried out a pilot project for the Sava River Basin, which joins the Danube at Belgrade, as a model for management planning at a sub-basin level.
- The number of NGOs engaged with the project through the Danube Environmental Forum has grown from 50 at the start of the project to 174 today.
- The project's Small Grants Programme supported 114 national and 12 regional projects. It also provided financial support to community-based demonstration projects.

Legal

- The project facilitated the EU Accession Process for candidate countries including helping them meet legal obligations to implement EU Directives.
- The project has assisted countries in designing new agricultural point and non-point source pollution control policies and legislation as well as policies and legislation for new land use, wetlands rehabilitation/protection, and industrial pollution control.

Communications

- A consistent strategic approach was used throughout the project. Basic products were developed and disseminated. Target audiences of the DRP received significant communications support, including the ICPDR and DEF. Activities also included the writing and submission of stories about the Danube and DRP for international environmental journals.
- In five Danube countries the project developed a number of communication and public participation materials including manuals for government employees, information databases, training, study tours, information dissemination and public participation tools, and information brochures for citizens and NGOs.

FACT BOX

The Danube River Basin covers the whole or part of Austria, Germany, Hungary, Czech Republic, Slovakia, Slovenia, Croatia, Bosnia & Herzegovina, Serbia, Montenegro, Bulgaria, Romania, Moldova and Ukraine.

The Danube is of high social, economical and environmental value, providing drinking water and supporting agriculture, industry, fishing, tourism, power generation, navigation, tourism and other economic activities.



Transfer of Environmentally Sound Technology (TEST) to Reduce Transboundary Pollution in the Danube River Basin

Overview

Industry, mining and agriculture are responsible for most of the direct and indirect pollution of the Danube Basin. Industrial effluents include heavy metals from smelting, electroplating, chlorine production, tanneries or metal processing; organic micro-pollutants from pulp and paper, chemical, and pharmaceuticals; or oil products and solvents from machine production and oil refineries. The food, paper, chemicals, and iron industrial sub-sectors account for about 75 per cent of major industrial pollutants. Mining drainage water, run-off and process water contain metals and organic solvents. Old-fashioned fertilizer factories are major dischargers of nitrogen while sewage from human settlements provides a source of ammonia.

As a result the Danube suffers serious oxygen deficiencies in its slow-flowing and stagnant waters, including its tributaries, where oxygen concentrations can drop below the level that can support aquatic life, including fish, and make the water unsuitable for drinking or recreation.

Project description

The project set out to build capacity in cleaner production in five Danube countries by applying the UNIDO programme on Transfer of Environmentally Sound Technology (TEST) at 17 selected pilot enterprises that were contributing to transboundary pollution in the Danube River Basin and the Black Sea.

One of the project's objectives was to bring these enterprises into compliance with the environmental norms of the Danube River Protection Convention and the EU Integrated Pollution Prevention and Control Directive while keeping them competitive, and at the same time dealing with the social consequences of major technology upgrading.

The project also sought to build institutional capacity for TEST procedures in each country by training staff from Cleaner Production Centres (CPCs) and Pollution Control Centres (PCCs) whose expertise could then be made available to help clean up other polluting enterprises in the participating countries, and across the Danube region.

REGIONAL

COUNTRIES:

Bulgaria, Croatia, Hungary, Romania and Slovak Republic

Partners: UNOPS, ICPDR

GEF Grant	US\$ 0.990 million
Co-finance	US\$ 1.923 million
Project Cost	US\$ 25.118 million

<http://europeandcis.undp.org/WaterWiki/index.php/Danube-TEST>



DANUBE RIVER

General

- The 17 enterprises were selected on the basis of the priority hotspots identified in the Danube – Pollution Production Programme and reconfirmed at the national level. They included alcohol production, fish processing, textiles, meat rendering and processing, pesticide, sugar production, chemical and petrochemical production, mechanical and railway rolling stock repair and reconditioning.
- More than 230 cleaner production measures were implemented at the selected enterprises at a cost of US\$ 2.00 million, producing savings equivalent to US\$ 1.30 million per year.
- Implementing the TEST process brought overall improvements to company profiles and credibility as well as specific benefits such as: i) a reduction in unnecessary investments and costs; ii) a change from loss to profit by recycling wastes or using them for alternative products iii) overall improvements in product quality; iv) increased marketing potential as a result of environmental acceptability; v) avoidance of fines, penalties and ill-will.
- Significant environmental benefits were achieved in terms of reduced consumption of natural resources (including fresh water and energy), reduced wastewater discharges and pollution, as well as a reduction in waste generation and atmospheric emissions.
- By the end of 2003, wastewater discharges into the Danube River basin had been reduced by 4.59 million cubic meters per year with an additional 7.86 million cubic meters reduction expected on full implementation of the TEST investments.
- The project also succeeded in decreasing raw material consumption, water and air pollution and solid waste. An annual reduction of more than three tonnes of pollutants was reported along with energy savings of 200,000kWh/year.
- Environmentally Sound Technology assessments were completed at the selected plants in accordance with the EC's Integrated Pollution Prevention and Control (IPPC) Directive, which must be fully implemented in all EU member states by October 2007. Pre-investment studies totalling US\$ 47 million are currently under implementation.
- Environmental Management Systems were introduced in 11 demonstration enterprises while Environmental Management Accounting systems were implemented in six companies. Several companies received ISO accreditation over the course of the project.

Training

- Over a three-year period, a total of 90 persons in the five countries were trained in TEST procedures through the delivery of 622 training days.
- The high standard of training in TEST procedures and associated products which the national counterpart institutes (CPCs and PCCs) received has enabled them to become cost-effective businesses in their own right, selling cleaner production packages and test modules to industry.
- Within the 17 selected enterprises, a total of 380 employees received TEST capacity building through 1691 person-days of training. The project was responsible for eight TEST-related jobs being created within the participating countries.

Communications

- Every country hosted a National Dissemination Seminar to which at least 10 companies were invited to see how the TEST approach worked. A regional seminar was organized with ICPDR (International Commission for the Protection of the Danube River).
- Two TEST publications were distributed and made available through the project website.
- The project exchanged information with on-going EU-funded programmes for the implementation of the Integrated Pollution Prevention and Control (IPPC) Directive in Romania and Hungary and with the USAID-funded ECOLINK programmes in Bulgaria and Croatia.

FACT BOX

The 2,857 km Danube River drains 817,000 sq. km including all of Hungary; most parts of Romania, Austria, Slovenia, Croatia, and Slovakia; and significant parts of Bulgaria, Germany, the Czech Republic, Moldova and Ukraine. The river basin also includes parts of Yugoslavia, Bosnia and Herzegovina and, through its network of tributaries, smaller parts of Italy, Switzerland, Albania and Poland. The Danube River discharges into the Black Sea through a delta, which is the second largest natural wetland area in Europe.



Preparation of a Strategic Action Programme (SAP) for the Dnipro River Basin and Development of SAP Implementation Mechanisms

Overview

The Dnipro, Europe's third largest river, and its tributaries drain industrial and residential centres of high economic, social and environmental value. However, the river can no longer be considered a self-regulating river-ecosystem. Hydro-electric facilities, reservoirs and dams, numerous nuclear power stations and other heavy industrial complexes have caused region-wide environmental and socio-economic damage. Extensive forest and wetland reclamation for agricultural development and sewage from large urban populations have also added to the severe environmental and health problems found in the Dnipro river basin and the entire Black Sea region. The situation has been complicated by the extreme social and economic difficulties the region faces in the transition to market economies. The Dnipro river itself has suffered severe deterioration and there is no reliable safe drinking water. Water quality is classified as "poor" to "unacceptable". The deterioration of the Dnipro also threatens the natural environment – 69 of the Ukraine's 164 endangered

animal species inhabit the Dnipro Basin, including five fish species

Project description

This project was designed to develop a programme of measures and implementation mechanisms to sustainably protect the Dnipro and to contribute to the protection of regional and global international waters. Management capacity, both at the level of individual countries – Republic of Belarus, Russian Federation, and Ukraine – and at the regional level, would be strengthened, so that all basin countries will benefit as well as those bordering the Black Sea. This project was designed to develop a programme of measures and implementation mechanisms to sustainably protect the Dnipro and to contribute to the protection of regional and global international waters. Management capacity, both at the level of individual countries – Republic of Belarus, Russian Federation, and Ukraine – and at the regional level, was strengthened, so that all basin countries benefit as well as those bordering the Black Sea.

REGIONAL

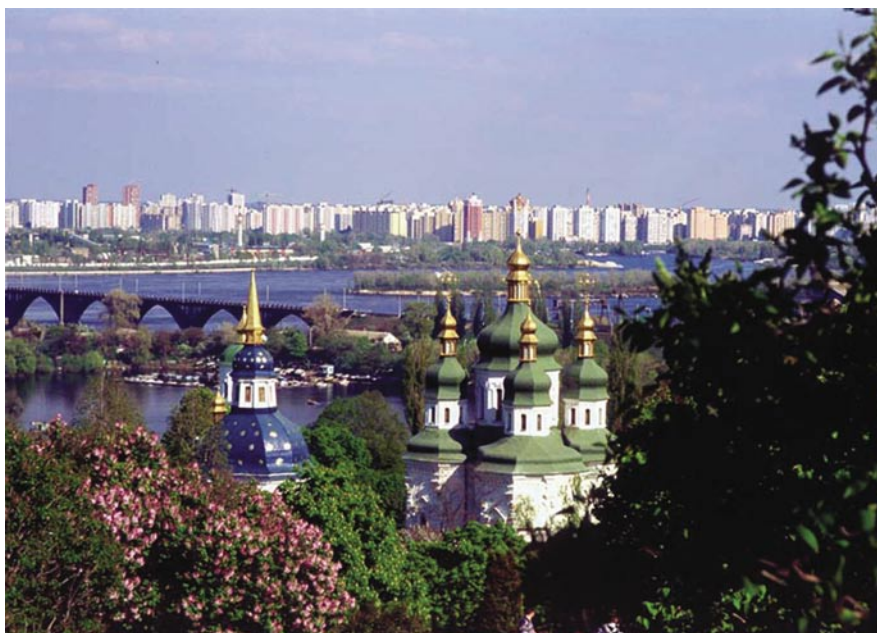
COUNTRIES:

Republic of Belarus, Russian Federation, Ukraine

Partners: UNIDO, UNEP, IAEA, IDRC, UNOPS

GEF Grant	US\$ 6.482 million
Co-finance	US\$ 7.628 million
Project Cost	US\$ 14.110 million

<http://www.dnipro-gef.net>



DNIPRO RIVER

General

- Support for a Dnipro Basin Convention and an implementing Commission was confirmed by all three countries in the Kyiv Declaration on Cooperation in the Dnipro Basin signed in May 2003.
- The riparian countries developed a draft Agreement on Cooperation in the Field of Management and Protection of the Dnipro Basin which created the institutional framework for a Dnipro Commission and its operational mechanisms.
- The project set up the Dnipro Basin Council (DBC) in 2003 to provide a public forum for local representatives, relevant state ministries, NGOs, research institutes and the private sector.
- All three countries have increased their national budgets to improve the Dnipro river water quality. Ukraine's budget has increased threefold.
- Pioneering research on assessment of pollution hotspots, regional fisheries and biodiversity assessments has been undertaken. Fisheries research produced the first inventory of series inhabiting the Dnipro Basin. Of 90 listed species there were nine introduced species, nine interventionist species and five invasive species.
- The project created six Regional Thematic Centres – two per country – to coordinate project activities. Their responsibilities were: Cleaner production, Pollution prevention and control (Belarus); Biodiversity, Legal, regulatory and Economic Issues (Russia); Pollution monitoring, Information management (Ukraine).
- The SAP included a Priority Investment Portfolio (PIP) which identified ten sites in Ukraine, and five each in Belarus and Russia, needing immediate intervention.
- Water monitoring capacity was increased. Approximately 10 percent of the project budget was allocated to equipment purchases, mostly for water quality monitoring laboratories.
- A 2003 report on waste management from intensive livestock production included a legislative review, case studies and mitigation measures.
- An IAEA report revealed that although radioactive contamination in flowing rivers had fallen to acceptable levels since the Chernobyl nuclear accident of 1986 there were still problems with radioactive waste dumps and in enclosed lakes.
- A regional Dnipro River Basin environmental database was created with on-line user capacities.

Legal

- Two legal studies – Harmonization of Environmental Legislation of Dnipro River Countries with Legislation of the European Union (September 2003) and Environmental Legislation of Belarus, Russia and Ukraine compared with the Principles of EU environmental law, with focus on water legislation" (June 2002) – were conducted.
- A 2002 report entitled "Review of Dnipro Basin Biodiversity legislation ensuring Public Participation Support" included a review of the legal protection accorded to flora and fauna, protected areas, endangered species and public participation in the three countries.

Community

- Working through the Dnipro Basin Council and NGO forums the project helped the continuing expansion, involvement and competence of the region's environmental NGO community. The Small Grants Programme helped NGO activities, especially public awareness-building.
- The NGOs and other community-based organizations in the region developed a deeper involvement in transboundary Dnipro environmental issues, as shown by the formation of an International Dnipro River Network of NGOs

FACT BOX

The Dnipro River is the third largest river in Europe and the second largest river emptying into the Black Sea. It drains an area of 509,000 square km and has a total length of 2,200km. About 33 million people live in the Dnipro basin, 22 million of them in Ukraine where the largest part (57 percent) of the river basin is located.



Implementation of the Strategic Action Programme of the Pacific Small Island Developing States (SIDS)

Overview

The ecosystems of the Pacific islands support an enormous and largely undocumented array of diversity including more rare, endangered and threatened species than anywhere else on earth. Its productive fisheries support the economies of nations, islands and communities.

However this environment is critically threatened with up to 50 percent of the region's total biodiversity at risk. Threats come from over-exploitation of resources; the fragmentation of ecosystems and habitat destruction from human activities; the impact of invasive species; climate change and destructive natural events. These are compounded by a complex combination of socio-economic factors including smallness, geographic isolation and narrow resource bases, population growth, lack of technical capacity and ineffective coordination among resource and conservation agencies.

Project description

The long-term objective of this project is to conserve and sustainably manage coastal and ocean resources. Project activities are designed to encourage comprehensive, cross-sectorial, ecosystem-based approaches to mitigate and prevent existing imminent threats to International Waters.

Although a single SAP provides a regional framework within which actions are identified, developed and implemented, project activities are carried out in two complementary components – International Waters Programme (IWP) and Oceanic Fisheries Management (OFM) – which can be seen as two distinct projects.

Oceanic Fisheries Management (OFM) component.

South Pacific fisheries provide 48 percent of the world's tuna catch from an area that covers only a 12th of the world's surface. Tuna fisheries earn the region more than US\$1.7 billion annually although only about one

percent of the two million ton catch goes for local consumption.

The tuna fisheries of the Western and Central Pacific Ocean are one of only two remaining major fisheries in the world still considered to be in healthy condition and amenable to increased exploitation. The OFM component targets the Western Pacific Warm Pool ecosystem, whose boundaries correspond almost precisely to the Western Pacific tuna fishing grounds. It has been designed to improve knowledge of the ecosystem, including the effects of fishing, and to improve national and regional management regimes to optimize sustainable economic returns from the fisheries.

Integrated Coastal and Watershed Management (ICWM) component .

The ICWM component of the project works with pilot communities in the participating countries to find practical ways to strengthen environmental management in three key areas: coastal fisheries, waste reduction, and freshwater protection. Its actions focus on freshwater supplies including groundwater, Marine Protected Area (MPA) enhancement and development, sustainable coastal fisheries, integrated coastal management including tourism development, and activities to demonstrate waste reduction strategies will be stressed.

Three out of four Pacific Islanders live in rural areas and many people still depend on coastal resources for both food and economic opportunities. The project works with pilot communities on the root causes of their resource management problems and seeks to find low-cost solutions that will improve resource management planning at the national level.

The project also promotes community-based, environmentally-friendly, behaviour change through a range of social and economic tools including legislation, economic incentives, infrastructure, public services and social marketing.

OCEANIC FISHERIES MANAGEMENT COMPONENT – RESULTS

Legal

- GEF support facilitated the full participation of Pacific SIDS as primary stakeholders in the negotiation and development process for the Convention and Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific.
- The project helped establish the new Western and Central Pacific Fisheries Commission in 2004. The WCPFC works to secure a sustainable future for the industry, securing present and future economic and other benefits for the islands, while at the same time minimizing the impacts of fisheries, including by-catches of turtles and sharks and pollution caused by fishing. A compliance programme for the Convention, including appointing observers, boarding and inspection, and the application of sanctions, has begun.
- Many Pacific SIDS are conducting reviews of the legal, policy and institutional arrangements, their national fisheries status, and management plans relating to the Convention with support from the project. At the regional levels scientific, legal and policy workshops and consultations are taking place.
- At the Western and Central Pacific Fisheries Commission meeting in December 2005 conservation and management measures were adopted which maintain bigeye and yellowfin catches at current levels, cap purse seine at 2004 levels, limit bigeye longline catches and allow no increase in vessels fishing for albacore in both north and south Pacific waters.

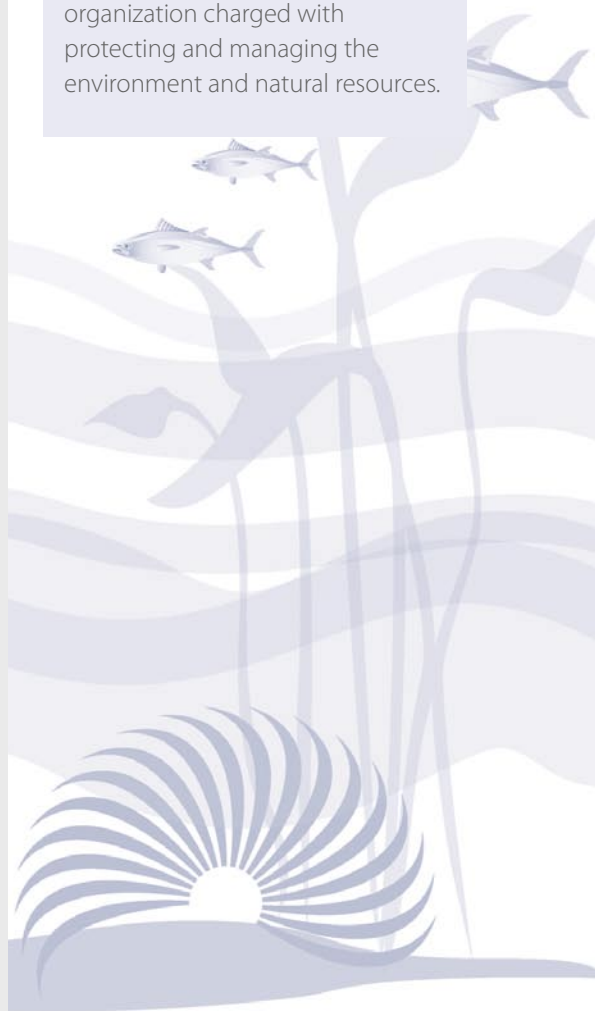
General

- Regional consultation and coordination has been improved by strengthening the links between the Forum Fisheries Agency (FFA) and the Secretariat of the Pacific Commission (SPC). These organizations were the original proponents of the OFM project.
- Tuna management plans were developed and reviewed in the Cook Islands, Fiji, Kiribati, Marshall Islands, Niue, Tuvalu and Vanuatu. Other countries were supported in their efforts to develop national tuna management plans for the 14 participating countries. Support was also given to the preparation of Tuna Management Plans by the Secretariat of the Pacific Commission.
- A Tuna Fishery Data Management System has been installed and is operating operation in seven of the 17 Pacific SIDS. National observer programmes have been established in 10 SIDS. A baseline study on the oceanic fisheries resources of the Central and Western Pacific was conducted in 2002.
- The Pacific Island Forum Heads of State has established a ministerial committee to oversee regional fisheries affairs.
- The project achieved a high level of co-ordination between its activities and existing on-going tuna fisheries management projects and has integrated them into its overall strategic plan.
- The project supported regional and national observer training courses, port sampling training and evaluation, and has created manuals and other materials to help observers. Support was provided to national observer coordinators in four countries (Fiji, Kiribati, Marshall Island and PNG). Port sampling contractors in Samoa and Tonga also received project support.
- Models have been created to describe the dynamics of transboundary fish stocks including an examination of the ecosystem issues relating to the Western Central Pacific tuna resource.
- The project has also supported Pacific islands' attendance to the annual meetings of the Standing Committee on Tuna and Billfish and to the meetings of other regional fisheries management organizations such as IATTC, IOTC and ICCAT.

FACT BOX

The Pacific marine environment is an enormous and largely unexplored resource. It has the most extensive and diverse reefs in the world, the deepest oceanic trenches and relatively intact populations of many globally threatened species including whales, sea turtles, dugongs and saltwater crocodiles.

The executing agency for the first project component (IWP) was the South Pacific Regional Environmental Programme (SPREP), a regional organization established by the governments and administrations of the Pacific region. SPREP has grown from a small programme into the Pacific region's major intergovernmental organization charged with protecting and managing the environment and natural resources.



INTEGRATED COASTAL AND WATERSHED MANAGEMENT (ICWM) – RESULTS

General

- Sites were selected to host community-based, social marketing elements of the project in each of the participating countries. In each country a National Coordinator and National Task Force have been appointed and meet regularly to ensure effective coordination.
- IWP and SPREP introduced a Waste Reduction Champion Award in 2005 to mark SPREP's Year of Action Against Waste.
- The project funds a scholarship scheme for students which is designed to build up technical capacity and keep skilled people in-country and involved in environmental protection activities. Fourteen students have benefited from the scheme – four from PNG, two each from the Solomon Islands and Tonga, and one each from the Cook Islands, Fiji, Kiribati, Palau, Tuvalu and Vanatu.

At project demonstration sites**Coastal fisheries:**

- On the island of Yap, Federated States of Micronesia the project team has been collecting and sharing information on the effectiveness of Local Marine Managed Areas with host communities. The project is also promoting tourism and other economic opportunities to the islanders.
- At Marovo Lagoon, in the Solomon Islands sustainable coastal fisheries are being promoted by establishing a system of Marine Protected Areas and promoting increased community involvement and responsibility for local resource management and conservation. It has helped transfer techniques and regulations – such as bag limits, gear restriction, seasonal closures, species rotation, and area restrictions – to communities. Mangroves have also been replanted.
- At Malekula Island, Vanuatu a series of participatory processes have been used to encourage the whole community to fully participate in all resource management decisions and to better understand their natural resources. Progress has also been made in the sustainable management of threatened species such as turtles and land crabs.
- At Alofi North and Makefu in Niue public meetings and awareness programmes have been held to develop rapport with the village communities and build commitment to the sustainable management of coastal resources. The project is also working with communities to develop new village-based fisheries management plans, improve marine habitats and establish Marine Protected Areas.

Waste reduction

- In Fiji the project has been working with villagers to develop a waste management system that includes composting (kitchen/green waste), recycling and reducing water pollution through composting human and animal waste. Village Environment Committees have been formed, open dumps have been cleared



IWP activities took place in 14 SIDS – the Cook Islands, Federated States of Micronesia, Fiji, Kiribati, the Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu and Vanuatu. These countries are spread out across more than 38 million square kilometers of ocean.

The Pacific Ocean contains an estimated 20,000 to 30,000 individual islands.

and most households are now composting organic material. Recycling centers have been established, skip bins provided and the use of composting toilets as an environmentally safe alternative to pit/septic toilets has been encouraged. National waste management plans are under consideration.

- In Tongatapu, Tonga the project has been encouraging waste separation and composting at the household level. Tonga has also recently adopted a Water Resource Bill and national waste management plans are being drawn up.
- In the village of Barakau, on Papua New Guinea the project is working to raise community awareness of solid and human waste disposal and to establish an effective waste management system. It has also helped draw up an effective marine resources management system and has lobbied for national policy and legislative changes to support community-based environmental management plans.
- In Majuro Atoll, part of the Marshall Islands, a task force has been formed to improve the solid waste problem on the islands and investigate the viability of establishing a centralized recycling and composting facility.
- At Bikenibeu West, Kiribati, the project is assisting the Kiribati community implement low-cost alternatives to manage their solid and liquid waste. A container deposit system encouraging people to recycle cans and plastic bottles has been established and a series of community 'competitions' organized as a way of promoting waste reduction behaviour. There has been an improvement in wastewater and sewerage treatment and coastal areas have reported reduced levels of waste.
- In Funafuti, Tuvalu the project is working with communities to promote practical, cost-effective and safe toilet systems, create awareness of the environmental impacts caused by unmanaged wastewater on groundwater, human health, and the surrounding environment, and provide the financial or technical support need to assist households and government to install environmentally sound treatment systems. Wastewater and sewerage treatment facilities have been improved, there has been a reduction in coastal pollution and national waste management plans are under consideration.

Freshwater protection

- In Lepa and Apolima Island, Samoa the project is working with the Samoa Water Authority to monitor water quality and with landowners to develop freshwater management plans for two communities. Lessons learnt from these activities could be expanded to all Samoa's water catchment areas. Project activities have also led to a decrease in land-based pollution and a reduction in waste.
- In the Takuvaine Valley in the Cook Islands the project has been working with the local community to develop a management plan for the watershed, the area's main source of water, which was threatened by pollution. Experience from this project assisted development of a national water management plan. The Cook Islands have also reported a reduction in land-based pollution, particularly from waste.

Regional (Cook Islands, Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu)

Partners: South Pacific Regional Environmental Programme, Forum Fisheries Agency

Oceanic Fisheries Management (OFM) component

GEF Grant	US\$ 11.644 million
Co-finance	US\$ 79.091 million
Project Cost	US\$ 90.735 million

International Waters Project (IWP): ICWM & OFM Components

GEF Grant	US\$ 12.200 million
Co-finance	US\$ 8.999 million
Project Cost	US\$ 20.999 million

<http://www.sprep.org/iwp/index.htm>
<http://www.ffa.int/gef/>



IW Programme
Delivering results

PEMSEA: Building Partnerships in Environmental Protection and Management of the Seas of East Asia

Overview

The East Asian Seas (EAS) region comprises six Large Marine Ecosystems (LMEs) – East China Sea, Yellow Sea, South China Sea, Sulu-Celebes Sea, Indonesian Sea and the Gulf of Thailand. In the last 30 years, 11 percent of the region's coral reefs collapsed while 48 percent are currently in a critical condition and over 80 percent are at risk. Mangroves have lost 70 percent of their cover in the last 70 years while seagrass beds' loss ranges from 20-60 percent. Unless properly managed, the current rate of loss will result in the removal of all mangroves by 2030, while reefs face collapse within 20 years.

Project description

The PEMSEA programme was designed to enable the sustainable use and management of coastal and marine resources through intergovernmental, interagency and intersectoral partnerships. Emphasis is placed on the demonstration of actual management actions on the ground, the success of which will strengthen government confidence and increase the commitment and investment of the public and private sectors in

addressing environmental problems.

PEMSEA has established a network of over 30 national ICM demonstration projects, parallel sites and sub-regional sea area/pollution hotspot management sites. The programme seeks to consolidate and build on the experiences gained from these sites by transferring the lessons learned and building the required skills and capacities across the region, supported by a comprehensive, systematic, region-wide strategy, action program and implementing mechanism.

A recently launched medium-sized project – **East Asian Seas Region: Development and Implementation of Public Private Partnerships in Environmental Investments** – complements existing PEMSEA activities. The US\$ 1.81 million (GEF grant US\$1 million) project is designed to build confidence and capabilities in public-private sector partnerships as a means of financing environmental facilities and services in the region. It will operate pilot programmes at five of the existing PEMSEA sites and will build capacity to effectively develop, finance, implement and sustain new investments in environmental facilities and services.

REGIONAL

COUNTRIES:

Brunei Darussalam, Cambodia, China, Democratic People's Republic of Korea, Japan, Indonesia, Malaysia, Philippines, Republic of Korea, Singapore, Thailand, Vietnam

Partners: International Maritime Organization

GEF Grant	US\$ 16.224 million
Co-financing	US\$ 33.531 million
Project Cost	US\$ 49.755 million

<http://www.pemsea.org/>
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CORAL HEAD ON REEF - (C) WOLCOTT HENRY 2005/MARINE PHOTOBANK

General

- A Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) was developed and adopted by the Ministers of the 12 participating countries as the Putrajaya Declaration in 2003.
- The PEMSEA Programme Steering Committee was transformed into an EAS Partnership Council in 2006.
- Several participating countries, including China, Japan and the Democratic People's Republic of Korea, have agreed to share the costs of creating a PEMSEA Resource Facility.
- Regional networks, a Regional Task Force and a Multidisciplinary Expert Group of coastal and marine experts have been formed.
- PEMSEA has facilitated a partnerships agreement for oil spill preparedness and response in the Gulf of Thailand.

Legal

- ICM legislation has been prepared to aid the establishment of an institutional arrangement at each site.

Results from selected PEMSEA sites

Bali, Indonesia:

- A Bali Coastal Strategy was adopted in 2002; a Coastal Strategy Implementation Plan in 2005; and a Coastal Use Zoning Plan in April 2005. Bali's zoning plan has established protected areas for rivers, beaches and cliffs, mangroves, coral reefs and water resources.

Chonburi, Thailand:

- An Implementation Plan for Coastal Strategy, action plans and institutional arrangements for ICM implementation have been made. An ICM Consultative Committee and Secretariat have been established and US\$10 million of provincial and municipal government funds has been identified to implement Chonburi's Coastal Management Plan

Danang, Vietnam:

- Coastal Strategy and implementation plans have been adopted along with a communications plan, coastal use zoning plan and institutional arrangements for ICM implementation, including draft local legislation. PEMSEA has also helped organize water segregation and beach clean-ups in two pilot communes.

Port Klang, Malaysia:

- PEMSEA's ICM program has chosen the Port Klang area as it hosts the mouths of two rivers that travel through Malaysia's mostly populated and urbanized areas. A coastal use zoning program which defines primary usage, compatible usage, and proposes a licensing or permitting system, has been launched.

Nampho, DPR Korea:

- A Coastal Strategy and Integrated Coastal Use Zoning Plan has been officially adopted and are under implementation. One of the strategy's major outputs has been the development of drinking water and sanitation supply project which benefits about 330,000 people.

Sihanoukville, Cambodia:

- Sihanoukville has adopted a Coastal Strategy and developed Implementation Plans in the areas of: tourism development, solid waste management and habitat protection.

Batangas, Philippines:

- Strengthening of local legislation and institutional arrangements in Batangas has allowed the sustainable operation of the ICM programme using its own resources.

FACT BOX

The region in which PEMSEA works encompasses a series of large marine ecosystems, sub-regional seas, coastal areas, and their associated river basins that are linked by large-scale atmospheric, oceanic and biological processes/ phenomena, such as typhoons, the Kuroshio Current and highly migratory species.

Although the LMEs are semi-enclosed and interconnected they are also strategic, globally significant, and geologically unique international water systems.



Xiamen, China:

- An Oceans and Fisheries Bureau has been established. User fees collected from use of the sea areas have been earmarked for marine management and environmental protection. Xiamen's experiences in the implementation of sea-use zoning contributed to the enactment of national legislation on sea area management in China. ICM implementation in Xiamen, particularly the zoning scheme, has aided the protection of marine habitats and endangered species such as the Chinese white dolphin, egret and lancelet.

Other PEMSEA results

Bohai Sea Environmental Management Programme

- A Bohai Sea Sustainable Development Strategy has been developed as well as a Legal Framework for Bohai Sea Management.

Manila Bay Environmental Management Project (MBEMP)

- A Manila Bay Coastal Strategy has been adopted and a Project Coordinating Committee established. A Coastal Use Zoning Plan has established areas for all major activities as well as sanctuary zones for fish, bird and marine turtles, and restoration and protection zones for coral reef, seagrass, mangroves and mudflats.

Gulf of Thailand Environmental Management Project

- A Gulf of Thailand Secretariat has been established by bordering nations. PEMSEA has also facilitated a Partnerships Agreement in Oil Spill Preparedness and Response in the Gulf of Thailand, signed in January 2006.

Communications

- An Integrated Information Management System (IIMS) now aids management and planning. Information sharing is enhanced by the Coast to Coast (C2C) network of country websites which gives facts and figures, coastal and marine topics and organizational contacts for each country. PEMSEA also encourages cross-project information exchange and sharing experiences through training, website linkage, technical workshops, and meetings with PERSGA, Yellow Sea LME Project, NOWPAP and others.
- PEMSEA has produced videos and publications including case studies, scientific papers, books, magazines and brochures for distribution around the region.
- Specialized training workshops have been organized for environmental journalists. Media partnerships are encouraged through regular media conference forums.

Community awareness

- Regular public awareness initiatives have involved women, youth and community associations. A Summer Youth Camp in the Philippines organized by PEMSEA in 2002 led to similar initiatives across the region such as the Manila Bay Youth Forum in 2002 and 2003, the Girl Scouts Coastal Clean-Up in Bataan, Philippines, and the Boy Scouts Coastal Clean-Up in Chonburi, Thailand.
- Environment-related themes have been introduced into school activities. The PEMSEA website has a Young Environmentalist Hub with on-line quiz and particular emphasis is placed on promoting World Ocean Day activities. Environmental material produced for children includes information sheets, education materials, a special website, interactive puzzles, and art competitions.

Training

- During the period 1999-2006, 72 training sessions – attended by more than 1,400 trainees – were organized, offered or supported by PEMSEA. Capacity-building has been enhanced by the establishment of an ICM regional training center in Xiamen, China and national training centers in Batangas, Philippines, and in DPR Korea. A professional apprenticeship programme, internship and fellowship programmes provide on-the-job training.

Black Sea Ecosystem Recovery Project, Black Sea Environmental Management Programme, and Black Sea Strategic Action Plan

Overview

The most significant process degrading the Black Sea in recent years has been massive over-fertilization by nutrients – compounds of nitrogen and phosphorus – largely coming from agriculture, but also from domestic and industrial sources. This has resulted in a process known as eutrophication, and has led to the wide-scale death of marine life which, allied with overfishing and the introduction of invasive species, such as the comb jellyfish (*Mnemiopsis leydi*), left some parts of the ecosystem in a state of collapse and other parts severely damaged.

During the 1970s and 1980s intense agricultural management practices were adopted in the Black Sea basin. Greater use of inorganic fertilizers and growing livestock numbers increased the amount of nutrients and organic waste. Other sources of pollution were poorly regulated industrial activity, ship discharges and tanker spillages, the dumping of solid waste into the sea or onto wetlands, untreated sewage and radioactive waste. These helped create pollution hot spots in the sea, severely affecting its ecology and economy and the quality of life and health of Black Sea residents.

Eutrophication has had profound consequences on fisheries and tourism. Although fish catches declined from 850,000 tons (mid 1980s) to a low of 250,000 tons (1991) there is evidence of recovery of some species, e.g. anchovy and sprat, but a worsening of the situation for others, such as spiny dogfish and whiting. In recent years the catch of bonito has increased massively. During the 1990s Turkey typically landed about 10,000 ton/yr, but in 2005 this jumped to 60,000 ton/yr, since when catches have remained high.

Black Sea tourism has suffered from poor water quality, (it is estimated that poor bathing water alone has cost the region US\$ 500 million a year in lost tourist revenue) as well as a lack of industry training and poorly planned development of hotels and facilities. Tourist developments are now subject to environmental impact assessments.

Rivers form by far the most important pathway for land-derived nutrients contributing over 95% of the land-derived inorganic nitrogen load and over 85% of the land-derived phosphate load (i.e. excluding loads from the rivers Don and Kuban which flow into the Sea of Azov). Direct municipal/industrial discharges contribute only a minor proportion of the land-derived nutrient load. In recent years the Danube has carried over 80% of the total river-borne DIN load and over 50% of the total river-borne phosphate load to the Black Sea.

Project description

Although the management of the Black Sea is the shared responsibility of the six coastal states until the early 1990s there was no common framework for cooperation.

After agreement on the 1992 Convention for the Protection of the Black Sea against Pollution, which established the Black Sea Commission, and with the support of the GEF-funded **Black Sea Environmental Programme** (1993-1996) the countries were finally able to launch joint, collaborative action.

The subsequent **Black Sea Strategic Action Plan** (1997-2000) supported them in drawing up SAPs, creating institutional networks and identifying priority national investments needed to improve the Black Sea environmental situation.

The long-term objective of the current **Black Sea Ecosystem Recovery Project** is to assist Black Sea countries to develop national policies and legislation and define priority actions that, while allowing economic development, can reduce levels of nutrients and other hazardous substances so that Black Sea ecosystems can recover to similar conditions to those observed in the 1960s.

BSERP seeks to reform agricultural policies; improve industrial and municipal wastewater treatment, rehabilitate key basin ecosystems, and strengthen the region's legislative framework and its enforcement.

BLACK SEA ENVIRONMENTAL PROGRAMME

- The project worked to assist implementation of the 1992 Convention for the Protection of the Black Sea against Pollution (the Bucharest Convention) and the policy objectives of the 1993 Odessa Declaration. It also helped introduce Integrated Coastal Zones Management practices to Black Sea countries.
- A Transboundary Diagnostic Analysis and Strategic Action Plan were developed. The SAP was adopted by Black Sea environment ministers in Istanbul in 1996.
- The programme helped set up a regional network of institutional structures, including Thematic Advisory Groups and Regional Activity Centres. It conducted biodiversity studies and developed the basis of the Black Sea GIS system.
- The project worked with WHO on a regional survey of beach and bathing water quality and with the International Atomic Energy Agency (IAEA) on radionuclides pollution and use of nuclear and isotopic techniques to analyse and monitor pollution.
- The project assisted governments with water quality monitoring and worked in close cooperation with the private sector on issues such as ship oil and waste, including drawing up a contingency plan for oil spills.
- The foundations of a communications and public awareness strategy were laid and NGO activities initiated through the first Black Sea NGO Forum and the establishment of the Black Sea NGO Network.

BLACK SEA STRATEGIC ACTION PLAN

- This project continued to support countries in preparing national SAPs and in identifying priority national investments. It helped reinforce national programmes, collect data and set up a series of Regional Activity Centres. Each country hosted an activity centre, located in a leading scientific or technical institution, with its own designated focal point.
- In 1997, the Black Sea and Danube Commissions established a joint technical working group to synthesize national reports into a regional report and provide the basis for a MOU between the two commissions. The Strategic Partnership for the Black Sea and Danube Basin, launched in 2001, is a US\$ 97 million support framework providing investment and capacity building to the 17 riparian countries.
- Agreement was reached with Globallast (another UNDP-GEF programme), which had operated a pilot site at Odessa, on a cooperative programme to tackle alien species invasion.
- The Black Sea SAP helped identify and map marine habitats and make an assessment of transboundary fish populations and current fishing practices. It established conservation areas in the Black Sea and neighboring wetlands. Protection of marine mammals was secured through these sanctuaries and the use of appropriate fishing gear.

BLACK SEA ECOSYSTEM RECOVERY PROJECT - BSERP

- BSERP has worked to reform agricultural policies; improve industrial and municipal wastewater treatment (including private sector incentives to invest in wastewater facilities); rehabilitate key basin ecosystems such as wetlands to act as nutrient sinks (including the creation of artificial wetlands); and to strengthen both the region's legislative framework and its enforcement.
- The Black Sea TDA(1996) has been updated using the latest data available for the Black Sea on the key transboundary issues, the Black Sea SAP (1996, updated 2000) is being also revisited to incorporate the results of a National Gap Analysis Study and the TDA (2007).
- The Black Sea – Danube Joint Technical Working Group (BS-D JTWG) was re-established between the Black Sea and Danube Commissions to develop a joint strategy on eutrophication and allow all 17 Black Sea countries to pursue common targets. Under EC initiative a task force has been formed for financing investments in both Danube and Black Sea regions
- The project is closely linked with the Danube and Dnipro river projects and a joint working group reviews scientific findings and coordinates the activities of the Black Sea and Danube Commissions.

- An assessment has been made of options and opportunities for small and medium sized investment in three sectors – agriculture, industry and municipalities – in projects that could reduce nutrient loads and facilitate habitat recovery.
- The agricultural and industrial sectors have benefited from the promotion of ICZM and testing of best practices. Pilot projects have been implemented in ICZM, marine protected areas, fishery-free zones, nutrient export modeling and a Black Sea Vessel Traffic Oil Pollution Information System.
- A targeted research programme has been carried out on Black Sea eutrophication. Four international scientific cruises have been organized in the North-west shelf of the Black Sea by the project's International Study Group. Studies have also been made on inputs of nutrients to the Black Sea by atmospheric deposition, through River inputs, and the effects of livestock management.

Legal

- EU accession countries (Bulgaria and Romania) have harmonized their national legislation and policies on nutrient reduction with EU directives (particularly the Urban Waste Water Treatment and Nitrates Directive). This includes the development, adoption and implementation of Codes of Good Agriculture Practice and site-specific programmes on nitrogen export reduction in vulnerable zones.
- A study is being undertaken on cost-effective legal, administrative and investment practices relating to eutrophication control. Legal protocols governing pollution and resource use in the Black Sea have been revised.
- Continued support has been provided to the Black Sea Commission including promotion of revised protocols and the development of new ones, such as the drafting of a new legally-binding fisheries document and a new protocol on land-based sources of pollution.

Training

- BSERP sponsored 17 training and workshop events, which were attended by 306 participants and also sponsored 23 additional events, attended by 630 participants, for the NGO community.

Public awareness and communications

- Schools have incorporated Black Sea studies into their curriculum and some have adopted their own beaches for clean-up and conservation activities.
- Black Sea Day (Oct 31) is supported by the project with events across the region including beach clean up campaigns, children's art competitions, concerts, festivals and promotion of environmental issues through the media. More than 25,000 people have directly participated in over 100 BS Day events and activities; media coverage reached an estimated audience of over eight million people throughout the region.

REGIONAL

COUNTRY:

Bulgaria, Georgia, Romania, Russia, Turkey and Ukraine. Links to river basin projects also affect Bosnia and Herzegovina, Croatia, Czech Republic, Hungary, Moldova, Slovak Republic, Slovenia, and Yugoslavia.

Partners: UNOPS, World Bank, UNEP, Black Sea Commission

Black Sea Ecosystem Recovery Project - BSERP

GEF Grant	US\$ 10.349 million
Co-finance	US\$ 9.277 million
Project Cost	US\$ 19.626 million

<http://www.bserp.org/>

Newsletter: Saving the Black Sea

Aided by nearly 14 years of GEF-funded interventions the Black Sea ecosystem is showing clear signs of recovery. These include:

- Since 2000, nutrient loads in the upper and middle stretches of the Danube have shown a clearly reducing trend.
- Between 1988 and 2003 livestock numbers in coastal country sub-basins fell by about two-thirds. Livestock numbers are now about half of what they were in 1960, with huge reductions in the volume of manure applied to fields or discharged to river from intensive rearing facilities.
- Levels of phytoplankton, which depend on nutrients for growth, have been reduced in the North-west shelf of the Black Sea (a decrease in biomass of about 50% compared with 1980s). In 1990 about 80% of the 50,000 km² area of seabed in the North west shelf was considered effectively dead. Low oxygen conditions still occur in NW shelf waters, but they now cover a much smaller area, are much less severe, and much less frequent. The number of macrozoobenthos species – an indicator of environmental quality – has increased. Large areas of the NW shelf are now characterized as being of moderate or good ecological status.

GloBallast: Removal of Barriers to the Effective Implementation of Ballast Water Control in Developing Countries

Overview

Shipping carries more than 90 percent of the world's commodities and is essential to the global economy. However the transfer of aquatic invasive species through ships ballast water has become one of the greatest threats to the world's oceans. Between 5 and 10 billion tones of ballast water – carrying more than 7,000 different species at any given time – are shipped around the world every year.

It is almost impossible to eradicate or even control an invasive aquatic species once it has established itself. The cost of controlling invasive species in the USA alone is around \$138 billion a year. Invasive species can threaten marine-based economies, especially fisheries and shellfish culture and can pose risks to human health. Ecosystems in Africa, Asia-Pacific, Eastern Europe and South America are particularly at risk as globalization opens up new markets, ports and shipping routes.

Project description

GloBallast was designed to help developing countries prevent, minimize and ultimately eliminate the transfer

of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments. The project, conducted in partnership with the International Maritime Organization (IMO), established demonstration sites, national lead agencies and task forces, assisted with laws and regulations, increased awareness and expertise, established best practices and stimulated innovative ballast water management solutions. The project also contributed to the early adoption of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention). GloBallast has sought to harmonize different approaches in different countries to ballast water control through standardized templates and models, facilitating maximum communications within and between countries, and has included capacity building and institutional strengthening in all its activities. Other activities included sampling ballast water and making risk assessments, conducting port baseline surveys, education and awareness programmes, training, developing regional strategic action plans and establishing information clearing houses.

GLOBAL

COUNTRIES:

Brazil, China, India, I.R.Iran, South Africa, Ukraine

Partners: International Maritime Organization (IMO)

GEF Grant	US\$ 7.392 million
Co-financing	US\$ 6.475 million
Project Cost	US\$ 13.867 million

<http://globallast.imo.org>

Newsletter: Ballast Water News (Quarterly)



Legal

- The International Convention for the Control and Management of Ships' Ballast Water & Sediments was adopted at the IMO in London in February 2004. Among its measures are a requirement for ships to have a Ballast Water Management Plan, maintain a Ballast Water Record Book and, conduct ballast water exchange in deep water or treat ballast water to meet the standards stipulated by the Convention. The Convention requires ratification by at least 30 states, the combined merchant fleet of which constitutes not less than 35 percent of the gross-tonnage of the world's merchant shipping, in order to enter into force.

General

- Six demonstration sites were chosen as representative of the six main developing regions of the world – South America, East Asia, South Asia, Arab Countries/Persian Gulf, Africa and Eastern Europe – have been developed into 'centers of excellence' in ballast water management, and have helped catalyze regional agreements and strategic action plans.
- GloBallast secured the support of the shipping industry and national governments. In some pilot sites, as many as 60–70 percent of ships submitted ballast water reporting forms, far in excess of the project's 25 percent target. In most pilot countries the national governments extended the use of reporting forms to other ports.
- In 2003 GloBallast was awarded the Queen's Golden Jubilee Medal in recognition of its contribution to the protection or enhancement of the Marine Environment.
- Port Baseline Surveys were made of native biota and introduced marine species in each pilot country and assessments undertaken to assess the risk of alien species introduction. Training packages were developed to train administrators, port and shipping personnel in IMO guidelines for ballast water management and ballast water legislation in each country was evaluated and improvements suggested.
- Awareness and expertise were increased through training and awareness campaigns. Best practices and standard models were established for technical activities and innovative and technical innovations – such as ballast water electronic monitoring system and ballast water disinfection technologies – were supported.

Communications

- The GloBallast Programme has established a collection of reports, monographs, papers and other publications as part of a global information resource centre. This collection is held by the IMO library in London and is made available through the GloBallast website
- A communications network including global and pilot country-specific websites, databases/directories, a regular newsletter and an information clearing house was established
- GloBallast awareness programme posters and brochures have been produced and are now available in Arabic, Chinese, English, Farsi, Spanish, Portuguese, Ukrainian and Hindi.
- Invaders from the sea – a TV documentary on ballast water issues – was produced by GloBallast, in cooperation with the BBC and the shipping industry, and launched in March 2006. In April 2007 the film won the gold award in the category of Best United Nations Feature at the third annual United Nations Documentary Film Festival.

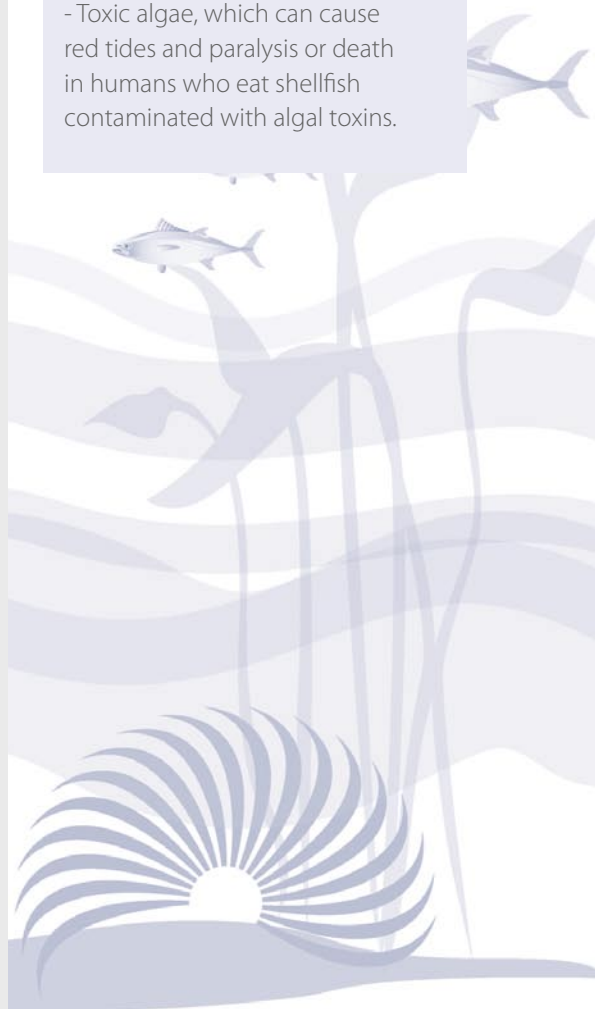
Training

- Modular ballast water management training courses have been conducted at pilot sites. A training package was also developed in 2003 in partnership with the UN Train-Sea-Coast for national and regional deliveries.

FACT BOX

Some of the most disastrous introductions of alien species across the globe have been:

- *Mnemiopsis leidyi*, a jellyfish from east coast USA, which invaded the Black Sea and Caspian Sea ecosystem and contributing to the collapse of the local fishing industry in both regions..
- The European Zebra mussel – introduced into the Great Lakes and spread to more than 40 percent of US waterways;
- The Golden Mussel which was introduced to South America, threatening the Pantanal wetlands and the entire Amazon basin.
- A North Pacific sea star introduced to Australia, which threatened the local oyster and shellfish industries;
- Toxic algae, which can cause red tides and paralysis or death in humans who eat shellfish contaminated with algal toxins.



Removal of Barriers to the Introduction of Cleaner Artisanal Gold Mining and Extraction Technologies (Global Mercury Project)

Overview

The number of people working in artisanal gold mining is between 10 and 15 million in more than 55 countries, usually in Africa, Asia and Latin America. As many as 4.5 million women and 300,000 children may also be employed in such mining, and many more affected by contamination of their environment.

The miners use mercury, or a combination of mercury and cyanide, to extract and refine gold. Unfortunately, they are seldom aware of or, driven by poverty, are forced to ignore the health risks of the mercury which they ingest through work, and from their environment. Mercury contamination is persistent, rapidly absorbed by aquatic organisms and biomagnified as it passes up the food chain – miners and their families are advised not to eat local fish, particularly carnivorous fish.

Due to inefficient processing techniques as much as 2 grams of mercury can be released into the environment for every gram of gold recovered. This is of grave ecological significance since most artisanal mining takes place within transboundary river basins. As well as mercury contamination, ecological impacts include

diversion of rivers, water siltation, land degradation, deforestation and habitat destruction.

Project background

The Global Mercury Project aims to raise awareness of health, economic and environmental risks among miners and their communities, promote cleaner extraction technologies, make health assessments and provide health solutions for victims of mercury poisoning, especially children who are particularly vulnerable to neurological damage.

The cleaner technologies are safer, more efficient and cheap to introduce. GMP recognizes that poverty is the root cause of the miners' unsafe practices and a long-term solution must be a social and economic one. GMP also works to develop regulatory mechanisms and government capacities, and build monitoring capacities in local laboratories. Poor health and sanitation, lack of schools and other facilities in remote camps is another problem and GMP also tackles health and social issues – such as HIV /AIDS and malaria – in its multi-faceted approach.

GLOBAL

COUNTRIES:

Brazil, Lao PDR, Indonesia, Sudan, Tanzania and Zimbabwe

Partners: UNIDO

GEF Grant	US\$ 6.807 million
Co-finance	US\$ 14.452 million
Project Cost	US\$ 21.259 million

<http://www.globalmercuryproject.org>
Newsletter GMP News



Legal

- GMP's policy group is working with country governments to develop policies and legislation that address mercury hazards. New legislation has been proposed for incorporation into the Mining Codes of the six GMP project countries. Dangerous practices such as whole ore amalgamation, joint use of mercury/cyanide and mercury recycling will be banned or strictly controlled.

Training

- The project has used mobile demonstration units (TDUs) to demonstrate methods to improve gold recovery and reduce mercury use to at least 10,000 people in all project countries. The TDU training modules were drawn up at a series of international workshops in 2005. They consist of: i) how to produce more gold; ii) how mercury makes us sick; iii) how to use and re-use mercury safely; iv) how to make more money; v) how to protect water supplies and improve sanitation; vi) how to prevent malaria HIV/AIDS and other diseases.
- About 200 trainers have been trained in the GMP countries. They train other trainers and disseminate the concepts of cleaner technologies and mercury pollution awareness throughout the mining communities.

Community

- TDU visits are also used to conduct health surveys, including mercury poisoning and other health problems related to artisanal mining communities such as malaria, sanitation, HIV/AIDS and TB. GMP is also teaching the use of simple sand filters to produce clean drinking water and has taught miners how to build water wells and ventilated latrines.
- In the mining village of Crepurizão, Brazil, more than 700 children are being educated by local teachers in a school funded by miners. A primary school for boys and girls in Gugub, Sudan, another GMP project site, is also funded largely by the profits from gold mining.
- The results of surveys are given to communities at training sessions, when health and environmental advice is provided, alongside the demonstration of extraction technologies.
- Health and environment surveys of mining sites showed widespread evidence of mercury poisoning – 70 percent of miners and 69 percent of child miners at a site in Zimbabwe showed symptoms. High concentrations of mercury were found in the breast milk of mothers from mining communities.
- Trading initiatives which eliminate middlemen, encourage better practices and secure premium prices for miners and communities, are also supported by the project. By creating more income for miners and making their communities more stable and less migratory GMP has helped reduce child labor and allowed better primary education, often funded by the profits from more efficient mining.

General

- Major mining companies are now working with GMP in the project sites and other areas.
- GMP also promotes alternative income-generating activities to communities. Activities include making tropical seed jewelry, aquaculture and reforestation work.
- GMP's approach has been replicated in countries such as Mozambique, Venezuela, Guinea, Ecuador, Cambodia and Senegal, which neighbor GMP countries.

FACT BOX

The Global Mercury project is unique among the IW portfolio in reporting significant contributions to several MDG indicators including 1.1,2,3,3.4,11,4,5,5.6, 7.10 and 8.18.

It is estimated that the Amazon basin receives 40 tons of mercury a year from gold mining while mining in Indonesia adds 150 tons to the Java Sea. In total around 1,000 tonnes of mercury are released annually into the environment from informal or small scale gold mining, accounting for between 30-40 percent of man-made mercury pollution.



IW:LEARN – The International Waters Learning Exchange and Resource Network

Overview

IW:LEARN – the International Waters Learning Exchange and Resource Network – is a GEF partnership to strengthen transboundary waters management through information sharing and learning among stakeholders. UNDP collaborates with over 25 international and national agencies and NGOs to facilitate peer-to-peer learning across the GEF International Waters portfolio. UNDP leads in delivering IW:LEARN's learning activities, synthesis of practical knowledge products, and broad dissemination of transferable GEF IW experiences.

More than 60 projects and 70 nations have participated in IW:LEARN's demand-driven, peer-to-peer workshops and conferences to improve IW management. Sample topics include fostering public involvement, marine governance and socioeconomics, economic valuation of freshwater ecosystems, knowledge management, and communicating for results.

Stakeholders have also joined IW:LEARN study tours to transfer cutting-edge practices in groundwater

management, marine management and other IW domains. Without leaving their offices, they can access IW:LEARN distance learning – via CD-ROM, web-based training, email forums and blogs – covering issues as varied as integrated coastal management, measuring impacts and results, and a multi-day course on the GEF's TDA/SAP approach to adaptive management. Along with face-to-face and distance learning, IW:LEARN produces and disseminates various knowledge products to advance IW capacity, success and sustainability. These include training-related handbooks and a quarterly GEF IW Bridges newsletter. Through a new series of four-page International Waters Experience Notes, IW:LEARN also helps GEF projects to document, share and adapt practices such as implementing a small grants programme, selecting optimal demonstration sites, creating constructed wetlands, fisheries treaties, and involving parliamentarians in IW management. IW:LEARN also produces a global e-mail list (jobs@iwlearn.org) for disseminating vacancy and consultancy announcements across the IW community.

GLOBAL

GEF Grant	US\$ 11.597 million
Co-finance Amount	US\$ 10.690 million
Project Cost	US\$ 22.287 million

Partners: UNEP, World Bank

<http://www.iwlearn.net/>

Newsletters:

IWBridges (quarterly; for innovation transfer);
 IWTech (periodic newsletter for software and technology updates);
 IWCalendar (meetings, events etc)



Conferences and workshops

- IW:LEARN's flagship event is a series of biennial GEF International Waters Conferences – (Hungary (2000), China (2002), and Brazil (2005) and South Africa (2007). At the 2007 conference, over 250 people gathered to actively learn from one another in small and highly interactive groups. Working groups and “inter-project clinics” collaboratively addressed what participants targeted as their highest priority challenges to realizing successful IW management. The conference also showcased transferable best practices through an “Innovations Marketplace” and conducted practical sessions for adapting recently tested technical tools across projects.
- IW:LEARN has trained over 450 people at needs-driven IW-related workshops.

Publications and visual media

- More than 540 copies of IW Bridges newsletters and over 320 sets of IW Experience Notes were picked up by participants at global IW events in 2006.
- 1,000 LME governance and socio-economics handbooks have been produced and distributed to all GEF LME projects.
- IW:LEARN's video documentary, *Turning the Tide: Sustaining Earth's Large Marine Ecosystems*, conveys how GEF-supported LME projects from the Benguela Current to the Baltic Sea are lead global efforts to steward Earth's vital near shore ecosystems. The video premiered before 108 nations' ministry representatives in 2006. Partners have voluntarily translated the video into Chinese, and expect to use the video as a basis for an international educational packet on LME management.

General

- IW:LEARN helps facilitate exchanges between diverse projects, stakeholders and beneficiaries, e.g., between the BCLME and the Pacific SIDS on fisheries treaties.
- IW:LEARN's Gender and Water Exhibit spans a Latin American Countries Expo, two spin-off expos in Pacific SIDS, over 23 nations and four continents.
- IW:LEARN's IW Jobs e-mail list (jobs@iwwlearn.org) assists projects and partners looking to hire qualified staff and consultants.
- IW:LEARN has catalyzed alliances, such as a public-private partnership for stakeholders' involvement in African source water protection.
- IW:LEARN has recently created a downloadable Web toolkit – a free user-friendly and powerful content management system for IW projects.
- The IW:LEARN website also features a section of blogs and forums – some open to the public, others restricted or requiring subscriptions. GEF corporate and project dialogue topics include: GEF Strategy Development for 2007–2010; Policies and Procedures; Good IW Governance and Institutions; IW Scientific and Technical Tools; Financing IW Partnerships; Learning Among IW Projects; and Measuring IW Impacts and Results. Thematic discussions include: the IW Groundwater Learning Blog; Africa Freshwater; the Aquifer Learning Community; Governance; International Waters Job Announcements; Lake Basin Learning Community; Marine Learning Community; and the River Basin Learning Community.
- All of these IW:LEARN products and services are featured on IW:LEARN's knowledge clearinghouse at www.iwwlearn.net.

FACT BOX

The IW:LEARN web-site – www.iwwlearn.net – has received 1.3 million hits – including 27,000 unique visitors – from more than 120 countries since it became operational. One in ten visitors bookmarks the IW-IMS website. IW:LEARN's IW Experience Notes and GEF IW Bridges newsletter depend on submissions from the IW community. IW:LEARN welcomes article proposals, project announcements, and stories of lessons learned, challenges overcome, and milestones in IW project implementation. Suggestions should go to info@iwwlearn.org.





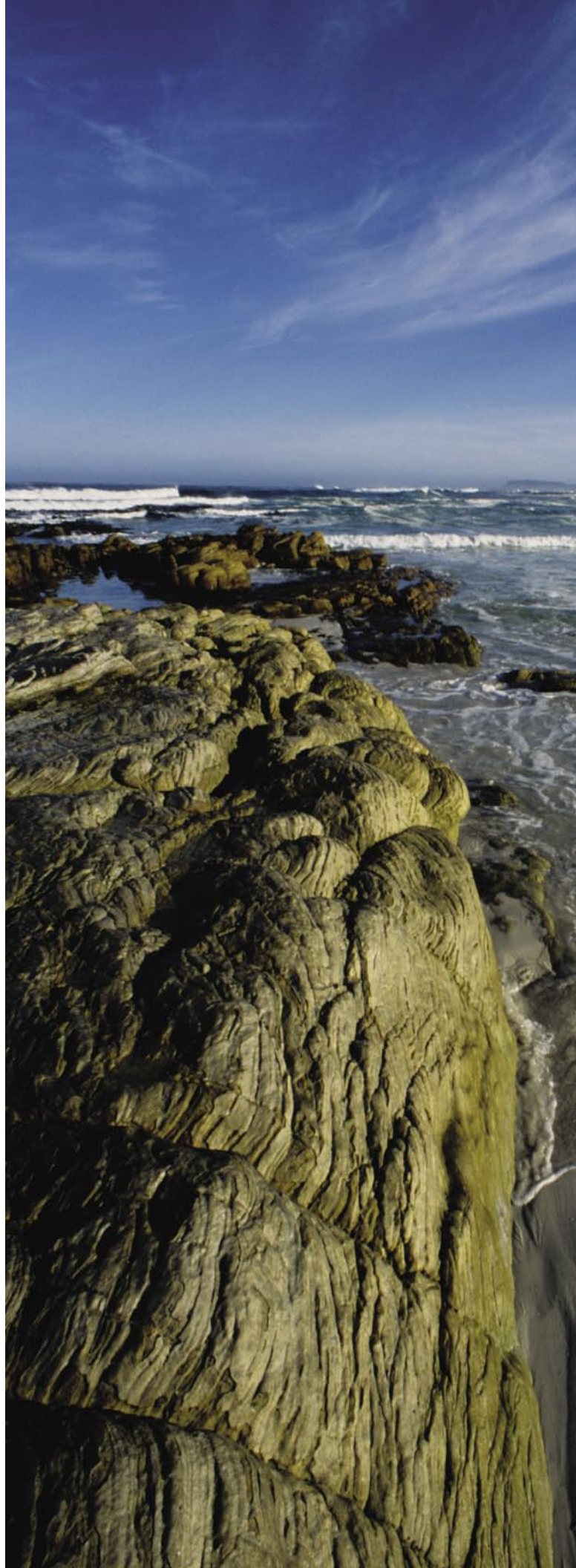
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