

Project Name	Argentina-Coastal Contamination Prevention (@)... and Marine Management
Region	Latin America and the Caribbean
Sector	Environment
Project ID	ARGE49012
GEF Grant Recipient	Republic of Argentina (GOA)
Implementing Agency	Secretariat for Sustainable Development and Environmental Policy (SDSyPA) San Martin 459 (1004) Capital Federal, Argentina contact: Dr. Mariano Jöger
Environment Category	C
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1. Country and Sector Background. Within the South Atlantic Large Marine Ecosystem (LME) lies the Patagonia Shelf LME, a biologically productive area supporting a wide variety of marine life. Recent priority setting analysis has specified distinct ecoregions within this LME according to patterns of ocean circulation, coastal morphology, and distribution of major faunal populations. The North-Patagonian Gulf Ecoregion and the Patagonian Shelf Ecoregion stretch along the coastal waters of the four Argentinean provinces of Chubut, Rio Negro, Santa Cruz, and Tierra del Fuego. These ecoregions, for simplicity referred to here as the Patagonia marine ecosystem, cover approximately 600,000 kms<sup>2</sup> of ocean and host a large number of marine species ranging from the endemic Magellan's penguin, the Southern Elephant Seal to the Southern Right Whale.

The highly productive and diverse Patagonia marine ecosystem is an important region for Argentina's economy. Commercial fishing, oil exploration, tourism, and a past national policy promoting industrial development (mining and manufacturing) have shaped the process of human settlement along the coast. The impact of these human activities on the overall health of the marine ecosystem is not fully known, as monitoring and research is insufficient to draw firm conclusions; however, continued growth and risks involved in oil exploration and transportation may threaten ecological sustainability. In particular, overfishing, pollution from oil storage and shipping, and land-based pollution are the main issues affecting, not only marine ecosystems, but also local and national interests.

- Overfishing. As in many other countries, Argentina's rich marine resources are being exploited at a rate that significantly exceeds the biological capacity of the resource to reproduce itself. Captures of hake, the most important commercial species, were estimated at over 800,000 metric tons in 1997, compared to the recommended total allowable catch of 395,000 metric tons. The impact of overfishing has become widely evident as fishing effort per unit catch has increased and the average size of fish caught has

dropped dramatically. Government efforts to control fishing have been largely ineffective due to political concerns regarding short-term employment loss, legal challenges and the lack of training, financing and accountability of the national fisheries management agency.

- Oil Spills and Ship-based Pollution. Oil spills from tankers and cargo ships pose the largest threat due to the potential severity of the coastal impacts. The first GEF Coastal Management Project for Patagonia estimated the number of penguins killed by oil pollution at 40,000 per year.

- Land-Based Pollution. Human population along the Patagonia coast is relatively low, although tourism doubles the number of people during the high season (December to February). The urban infrastructure in most Patagonian coastal cities and towns lacks, for the most part, facilities for sewage treatment and solid waste disposal. In some cases, waste from industries located along the coast, particularly from the petroleum, aluminum, and fish processing plants cause localized impacts.

- Insufficient Knowledge for Management Decisions. A number of research institutions have had a central role in developing the marine resources knowledge base; however, three problems reduce their contribution to management decisions: (a) the information is not sufficient nor properly integrated;

- (b) the institutions tend to minimize knowledge sharing because of competition for research funding and prestige; and (c) these institutions have limited dialogue with policy makers and have few applied marine research programs.

2. Project Objectives. The objective of the proposed GEF Project is to strengthen Argentina's efforts to reduce pollution of the Patagonia marine environment and improve sustainable management of marine biodiversity by:

- (a) improving oil spill prevention and response capacity and preventing ship-based pollution;

- (b) improving the knowledge base about the Patagonia marine environment and its biodiversity; and

- (c) building capacity and promoting regional knowledge sharing for sustainable management of marine resources.

### 3. Project Components.

The main project components and the specific activities under each component include:

A. Maritime Pollution Prevention. This component aims to mitigate some of the threats and impacts affecting the Patagonian marine environment originating from ship-based pollution and oil spills. It would improve preparedness and response to oil spills, strengthening the capacity of Prefectura Naval Argentina (PNA) to prevent maritime pollution generated by ships and offshore oil exploration, by: (a) improving organization and analysis of contingency plans, (b) providing extensive training for effective oil spills response, (c) supporting oil spill trajectory modeling, and (d) improving enforcement of MARPOL regulations on waste discharges. It would also reduce navigational risks through the introduction of a marine electronic infrastructure program, allowing for a greater understanding of the hydrographic conditions surrounding navigated zones and the positioning of oil and cargo ships, by: (a) enhancing the vessel tracking system and (b) supporting hydrographic mapping of critical zones and improving the electronic charts system.

B. Marine Biodiversity Protection. This component aims to improve the knowledge base on the Patagonia marine ecosystem and complete identification of ecologically sensitive areas, generating a more systematic and internationally compatible set of oceanographic and biological data, through: (a) targeted programs for understanding the dynamics of ocean circulation, production and environmental degradation of key areas in the Patagonia ecosystem, (b) transboundary analysis of Patagonian ecosystems and sensitivity atlas to improve knowledge base on the Patagonia marine ecosystem and complete identification of ecologically sensitive areas, and (c) inter-calibration of key marine laboratories. The component would develop marine protection tools based on impact evaluations, focusing on (a) priority setting of areas for marine biodiversity and analysis of regulatory and technical aspects for piloting marine reserves and (b) evaluation of the incidental catch of birds and mammals and development of an action program based on the severity of impacts. This component would also promote capacity building and regional knowledge sharing on marine biodiversity protection; this subcomponent would be implemented as a Matching Grant Program to support local pilot projects for innovations in resource use technologies and applied research.

C. Local Capacity Building, Monitoring and Evaluation, and Project Management. This component will enhance the role of the national environmental agency as well as strengthen marine resources management capacity of provincial and municipal governments. The component will also provide for a Project communication strategy.

4. Project Financing. The overall project cost of the GEF-financed project is approximately US\$18.76 million, of which the GEF would finance US\$8.35 million, the Government of Argentina approximately US\$4.35 million, and private participants approximately US\$6.06 million.

5. Project Implementation. The Sustainable Development and Environmental Policy Secretariat (SDSyPA), as the national environmental authority, will have overall responsibility for project implementation. SDSyPA will be assisted by a Project Executing Unit (PEU) that will manage and oversee the project's execution. As for the technical oversight of the Project, the PEU will share responsibilities with the Argentine Coast Guard (PNA) and the Naval Hydrographic Service (SHN). PNA and SHN would each appoint a Technical Manager, who will oversee the technical aspects of their respective tasks.

6. Project Sustainability. The GOA has demonstrated its support to the broad objectives of pollution prevention and protection of the coastal environment in Patagonia by co-financing the World Bank's Sustainable Fisheries Management and Pollution Management Projects and the IDB's Port Modernization Loan. Stakeholders that have participated in preparation workshops (i.e., research institutions, NGOs, the oil industry, coastal municipalities, and provincial authorities) have high expectations for the Project and are likely to exert pressure on the implementing agencies for results. The matching grant program under Component B is intended to pilot a mechanism for promoting stakeholder commitment by requiring co-financing from subproject proponents.

7. Lessons Learned from Previous Projects. Environmental projects in Argentina have offered two important lessons: (a) the need for local ownership and expanded use of local or regional specialists; and (b) project success largely depends on the implementation capacity of the executing agency. The Project has incorporated an extensive process of consultation and the use of national experts and its matching cost program will continue to

support local participation during implementation.

8. Poverty Category. Not applicable.

9. Environmental Aspects. The project is classified under Category C, as it would have a positive environmental impact by protecting the Patagonia marine ecosystem.

10. Program Objective Category. Environmentally sustainable development (EN).

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