GEF

Global Environment Facility

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May 3, 2001

Dear Council Member:

I am writing to notify you that World Bank, the Implementing Agency for the project entitled, *Argentina: Coastal Contamination Prevention and Sustainable Fisheries Management*, has submitted the proposed project document for CEO endorsement prior to final approval of the project in accordance with World Bank procedures.

Over the next four weeks, the Secretariat will be reviewing the project document to ascertain that it is consistent with the proposal included in the work program approved by the Council in March 1998, and with GEF policies and procedures. The Secretariat will also ascertain whether the proposed level of GEF financing is appropriate in light of the project's objectives.

If by May 31, 2001, I have not received requests from at least four Council Members to have the proposed project reviewed at a Council meeting because in the Member's view the project is not consistent with the Instrument or GEF policies and procedures, I will complete the Secretariat's assessment with a view to endorsing the proposed project document.

We have today posted the proposed project document on the GEF website at www.gefweb.org. If you do not have access to the Web, you may request the local field office of UNDP or the World Bank to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,

Cc: Alternates, Implementing Agencies, STAP

THE WORLD BANK/IFC/M.I.G.A.

OFFICE MEMORANDUM

DATE: April 25, 2001

TO: Mr. Mohamed El-Ashry, CEO/Chairman, GEF
FROM: Lars Vidaeus, GEF Executive Coordinator

EXTENSION: 34188

SUBJECT: ***ARGENTINA: Coastal Contamination Prevention and Maritime Management***
Final GEF CEO Endorsement

1. Please find attached the electronic file of the Project Appraisal Document (PAD) for the above-mentioned project for circulation to Council and your final endorsement.

2. The PAD is fully consistent with the objectives and expected impacts included in the proposal endorsed by Council as part of the March1998 Work Program. The Project reflects the linkages and synergies with other GEF and Bank-supported activities to protect international waters (IW) from the La Plata basin to the Patagonia Large Marine Ecosystem (see Annex 1 to this Memorandum) and will develop as a key output a transboundary analysis using IW indicators as required by OP 8 (see draft in Annex 2). However, some changes in scope, as outlined below, have been introduced during final project preparation. Responses to GEFSEC, STAP, and Council comments received at WP entry are also addressed and summarized below.

Changes in Scope

3. The objectives and key outputs of the incremental GEF project activities remain the same as presented to the Council at Work Program entry ("Argentina: Coastal Contamination Prevention and Marine Management Project", March 1998). The core objectives of the project at WP entry (from the March 98 Annex 1) were to reduce pollution of marine and coastal areas and to promote the sustainable use of Patagonian fisheries. These goals were linked to the global objective of conserving marine biodiversity and improving management of coastal and marine resources in the Patagonian Large Marine Ecosystem (LME). The major outputs of the proposal, as approved at WP entry and as now appraised are:

(a) improved capacity for oil spill prevention and mitigation;

(b) reduced navigational risks and improved vessel tracking through an Electronic Marine Information Infrastructure;

(c) improved institutional capacity to regulate fishing activities and determine its direct and indirect effects on marine biodiversity; and,

(d) increased capacity and engagement of regional stakeholders in marine resources management.

4. While the GEF project objectives and outcomes remain constant, a number of changes have been introduced during the two year preparation period to adapt the project to current events and to enhance operational effectiveness. The main differences between the project described in the attached PAD and the March 1998 Project Brief may be summarized as follows (see Annex 3 of this Memorandum for details):

i. fisheries management has shifted from incremental (GEF) to baseline (IBRD) funding: activities related to overfishing originally included for GEF incremental cost support at the WP entry stage are now addressed by a new WB Learning and Innovation Loan (LIL) for Sustainable Fisheries Management. This has resulted in sustainable fisheries actions being shifted to the baseline; consequently, the proposed GEF project focuses on complementary activities, such as developing tools and capacity for protecting marine biodiversity in the context of fishing activities and improving the knowledge base about Patagonia's marine environment;

ii. composition of proposed GEF expenditures has shifted: following detailed preparation, appraisal revealed that (a) the capacity-building element of the project required greater attention, (b) Electronic Marine Information Infrastructure (EMII) activities required less funding than anticipated due to technology changes/cost reductions over the past two years; and (c) the need for an improved information base for sound resource management decisions. Consequently, it is proposed to shift part of the GEF financing no longer needed for EMII investments and fisheries management activities to incremental cost support for capacity-building and a matching grant program for marine biodiversity protection and pollution abatement;

iii. additional co-financing has been leveraged: the total cost of baseline investments and incremental GEF project components has increased from $28.85 million at WP entry to $36.76 million following appraisal. This represents leveraging additional $7.91 million, comprising new baseline assistance from the WB ($5 million for the Fisheries LIL), and increased government and private counterpart funding of $2.91 million;

iv. components have been aligned with implementing agencies: as proposed in the WP Project Brief dated March 1998, institutional arrangements for implementation were clarified during preparation; three implementing agencies will be responsible for project execution, and project activities have been consolidated into three components (from five) to correspond to the agreed implementation responsibilities; and,

v. the logical framework has been sharpened: to focus exclusively on incremental global benefits and performance indicators for activities supported by the proposed project.

Comments by GEFSEC

5. *Excellent example of a GEF-IW project addressing several transboundry priority issues from a single country basis.* Indeed, the project addresses these issues by focusing on marine pollution risk reduction, navigational safety concerns, and improving marine biodiversity management in the international waters surrounding Argentina.

6. *Questions regarding geographic extent of activities in Argentina waters were answered.* Addressed at the time of work program inclusion and further reviewed by the UK government under the disputed territory operational policy. At the time of WP inclusion, the proposal envisaged that the project area would include the entire Patagonia shelf; as the Republic of Argentina and the United Kingdom both lay claim to the waters surrounding the Falkland/ Malvinas islands the proposed scope of work was reviewed and agreed to by the representatives of the UK under the WB disputed territory operational policy prior to submission to Council. As appraised, the project will only include the ecoregions of the Patagonia shelf, Northern Patagonian gulfs and the parts of the channels in Tierra de Fuego and the Uruguay- Buenos Aires shelf under Argentine jurisdiction, thus removing the disputed waters from the project area. This will exclude all activities in the Falklands / Malvinas ecoregion as illustrated by Figure 1 of the PAD.

7. *Technical comments regarding collaboration with UNDP Maritime Front IW Projects.* The preparation of this project has progressed in tandem with the Maritime Front project, currently under implementation. There has been regular exchange about the preparation between the teams in both countries and by Bank staff working on preparation. The projects are completely complementary at this point as described in detail in Annex 1 which presents the linkages and synergies of this project with other GEF and baseline activities. Section 2 of the PAD presents additional information.

8. *The final strategic step of National Action Plans developed by an Interministerial Committee in each country be incorporated into the project.* The project has raised the issue of a marine electronic highway along the coast from Argentina to Brazil, where many of the same designed features are currently being considered for the WB/GEF Uruguay Maritime Management project and a proposed Brazil Coastal Zone Management Project. The work on biodiversity of the Patagonia shelf has permitted an exchange of technical experts from the UK and Argentina.

Comments by STAP:

9. *The issue of migratory fish stocks traveling beyond the EEZ of Argentina and the involvement of relevant countries:* With the reduction of the fisheries issues in the proposed PAD, there is less focus on this issue of migratory fish species. The World Bank fisheries loan, does, however, address the issue of management of some of the stocks including the Southern Hake, mentioned by the STAP reviewer. Further work in this field is envisioned under a new proposed operation, that could include the implementation of CAMALAR and other international fisheries agreements.

10. *Marine Biodiversity maintenance through improved fisheries management and the involvement of the fishing industry.* The fisheries loan is primarily designed to improve fisheries management, including better monitoring and control mechanisms to determine where fishing takes place. The involvement of the fishing industry is also being addressed by fisheries observers, and the introduction of individual transferable quotas. The GEF support under the competitive grant scheme will serve as a learining tool for effective approaches to biodiversity maintenance and sustainable fisheries management. While much remain to be done on this issue, the proposed GEF financed study of marine protected areas and their potential development in the context of fisheries management is likely to generate recommendations of how to move this agenda forward.

11. *Lessons learned from outside of the region*: The experiences of the Red Sea SAP were used, in particular the navigational safety work. The work on the Maritime front has also been closely monitored by the preparation team. Other experiences from the Baltic, Black and Mediterranean programs have been available to the project team. The competitive grant program has built on experiences from similar programs in Brazil and Chile.

12. *Introduction of exotic species:* The current project deals with exotic species introduction in the context of ballast water (design of treatment facilities), monitoring of exotic introductions, and the enforcement of IMO regulations. During project preparation there were efforts to understand the risks facing the Argentine waters from such introductions, and there exists some work on this topic in Argentina. The project might also fund some pilot activities of this nature under the competitive grant component

13. *The introduction of transponders to monitor the fishing fleet.* Transponders are currently in use on most of the larger fishing vessels using the MOMPESAT system, a transponder system implemented during the last three years and covering 450 fishing vessels. A second generation system is being considered under the fisheries LIL project. An evaluation of the MOMPESAT system will be conducted under the proposed GEF project to determine its implementation success and appropriateness for introduction into the oil tanker fleet.

Comments by Council:

14. *The impact of activities in coastal areas on international waters*: The Council member from France raised concerns about the linkage between land based activities and international waters. This concern is being addressed mainly through the Pollution Management Project, part of the project baseline.

15. *The Place of "fisheries and fish stocks" in international waters:* The Council member from France raised concerns about the relevance of fisheries in international waters projects. This concern has been resolved by the GEFSEC since the comments made in April 1998 and, as understood by the World Bank, establishing sustainable fisheries

regimes in international waters is an activity that can be considered for GEF support. In the case of this project, such regime is part of the baseline.

Conclusion

16. We believe the proposed Argentina Coastal Contamination Prevention and Marine Management Project is consistent with the original project objectives and outcomes envisaged at the time of WP entry, while providing a stronger operational vehicle for achieving results on the ground. The proposal as submitted for CEO endorsement is considered an improved design because more co-financing has been leveraged, a clearer monitoring framework is in place, and full client ownership has been achieved by adapting activities to local needs and conditions.

17. We look forward to receiving your final endorsement of the Project Appraisal Document, following circulation to Council.

Annex 1: Linkage and Synergies with other GEF-Projects Selected Baseline Projects
Annex 2: Preliminary Draft of a Transboundry Analysis
Annex 3: Detailed Description of Changes in Project Scope

cc : Messrs./Mmes. Alexander (LCC7C); Redwood, Cackler, Serra, Lovejoy, Lundin, Shepardson, Bradley (LCSES); Castro, Hatziolos (ENV); Montiel (LEGLA); ENVGC ISC Files; LCSES IRIS2

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ANNEX 1:

Linkage and Synergies with other GEF-Projects and Selected Baseline Projects

A. GEF-supported Projects

The proposed project has a close linkage to two GEF funded activities addressing protection of IW and implemented through UNDP: (i) Patagonia Coastal Zone Management Project Phase II; and (ii) The Maritime Front Project.

Argentina Coastal Zone Management Project Phase II (underway). The proposed Project was developed on the basis of the experiences of the first UNDP/GEF supported project and specifically seeks to complement the Coastal Zone Management Project Phase II in three aspects:

- the scope of the UNDP/GEF project is mostly linked to coastal activities, such as coastal zone management, land-use planning, tourism management, whereas the proposed WB/GEF supported Project focuses on prevention of maritime pollution and marine biodiversity protection;
- the UNDP/GEF project also includes improvements in artisanal fisheries technologies to mitigate impacts on biodiversity, whereas the proposed project focuses on better understanding and mitigating the effects of large-scale fisheries on marine biodiversity; and,
- the UNDP/GEF project emphasizes primarily protection measures from land and conservation measures for terrestrial reserves; the proposed project would complement these programs by supporting capacity building activities and protection tools focussed on marine areas, such as the preparatory work for piloting of marine reserves.

During project implementation, the teams of these projects will continue a coordination effort initiated during the preparation phase. The overlap of several of the key consultants and consultation with relevant government officials in the preparation process facilitated the identification of complementary activities.

Maritime Front Project. This project being implemented by the joint Uruguay and Argentina Maritime Front Commission and the joint Rio de la Plata Commission is already building maritime management capacity in the region. The proposed Project complements activities aimed at developing the information base and capacity for understanding the dynamics of oceans and marine life. The coordination between the projects is ensured because a key institutional leader on technical matters on the Argentinean side is the same for both projects: the Navy's Hydrographic Service. The project teams have exchanged information on project design to maximize synergies and to avoid overlap or duplication. The key areas of coordination between the projects are:

- Hydrology and pollution modeling is undertaken in both projects, and therefore data, capacity and assumptions are being exchanged between the participating institutions.

- Each project will fund an oceanic buoy for which compatible design and maintenance aspects have been considered by the teams. The location of the buoys will be very far apart to ensure proper coverage and minimize overlap. The distance between the two buoys is approximately 200 nautical miles.

- The development of the sensitivity atlas will be a joint output with consistent format and specifications for data gathering and presentation.

Finally, the marine electronic highway activities will also be implemented in the project area of the Maritime front project, and interchange of information will be an important component of ensuring improved navigational safety.

B. Selected Baseline Projects

Sustainable Fisheries Management Project.

Overfishing has caused a near collapse of the key commercial species in Argentina. Captures of hake 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 even more apparent as fishing effort per unit catch has increased and the average size of fish caught has dropped dramatically. To address these issues, a new fisheries law, mandating the implementation of a quota management system (QMS) based on Individual Transferable Quotas (ITQs), went into effect in January 1998 with the goal of developing an improved framework for fisheries management.

Under a phased program of support, the **Sustainable Fisheries Management Project** supported by a $5 million Learning and Innovation Loan was approved in September 2000, and will support the following key activities:

- Strengthen the government's ability to carry out its core management functions, and particularly those required under QMS, including identification of service requirements (i.e., licensing, quota registry, dockside and at-sea inspection service, on-board observer program, and improved utilization of information from these and the Monpesat system to improve the effectiveness of control activities, research, public information and public consultation).
- provide assistance and worker counseling to unemployed fisheries workers resulting from closure of hake fishery to access national and local government unemployment assistance programs and provide the government with an assessment of the effectiveness of existing labor programs to address the needs of vulnerable industry workers.

Port Modernization Project supported by the IDB through a $104 million and an equal contribution from GOA is currently under implementation with a considerable emphasis on environmental improvements in the ports. The most important contribution for the Port Modernization project to the proposed Project will be in the ports of Puerto Madryn and Ushuaia where the capacity of the Coast Guard (Prefectura Naval Argentina) to deal with oil spills will be strengthened. In addition, the project scope includes funding for waste reception facilities, including solid waste, sewage and ballast water, intended to improve compliance with MARPOL regulations. Two fire prevention ships will be procured, and environmental capacity building will be directed at ports in Patagonia.

The Uruguay Maritime Management Project, currently under preparation has as main objectives to improve navigational safety in the Rio de la Plata and its maritime front, reduce marine pollution at sea, in rivers and ports, improve fisheries management and manage aquatic biodiversity in a sustainable manner. The development of the Uruguay project has progressed in parallel with this project in Argentina. During final design of the Uruguay project close attention will be paid to

technical solutions that will ensure compatibility and exchange of electronic information and management relevant information with Argentina.

ANNEX 2. Preliminary Draft of a Transboundary Analysis.

International Water (I/W) Indicators Describing Issues Affecting Biodiversity and Environment of the Patagonia Marine Ecosystems.

Issue	Sources/Causes	Impacts	Scale	Severity	I/W Indicators (P, S, E)	Project \Program to Address Issue	Activity
Pollution							
Oil pollution from Ships and port operations	Tankers and Cargo vessels washing of ballast water and bad practices for loading	Oiling of coastal areas, traces of oil derivatives in marine mammals and seabirds	Localized throughout the region, especially in major port such as Comodoro Rivadavia, Caleta Olivia	Moderate	Number of oiled birds (E)	1. CPMM 2. Port Modernization Project 3. Uruguay MM	1. Maritime Pollution Prevention Component 2. Environment Component 3. TBD
Oil pollution from contingency situations	Ship wrecks and oil terminal accidents	Massive oiling of coastal areas, in some instances with long recovery periods.	Local effects unevenly distributed over time.	Moderate	Number of oiled birds (E)	1. CPMM 2. Uruguay MM 3. Frente Maritimo (GEF)	1. Maritime Pollution Prevention Component 2. TBD
Contamination effluents and solid waste	Urban wastewater and industrial effluent	Some eutrophication of coastal waters, high concentrations of coliforms and toxic algal blooms	Highly Localized throughout the region, especially in urban areas such as Puerto Madryn and Ushuaia	Low	BOD, Coliform Counts (E)	1. Pollution Management Loan 2. Municipal Development Loan 3. Montevideo Water supply and Sanitation Program \ IDB 4. Provincial funding.	Improved monitoring and improved wastewater management and solid waste disposal facilities
Contamination by pesticides	Agricultural run-off	Bio-accumulation in marine mammals and seabirds	Localized, especially in the Province of Río Negro	Low (suspected, but not fully documented)	Chemical residue analysis, BOD (E)	1. CPMM	Grants to research institutions to identify problem areas.

Heavy metals	Effluents from old mining operations and urban centers	Bio-accumulation in mollusks, crustaceans, marine mammals, and seabirds	Regional, however, most of sources are localized in urban centers	Low-moderate (suspected, but not fully documented)	Chemical analysis, particularly of bivalves (E)	1. CPMM	Grants to research institutions to identify problem areas.

ANNEX 2. Preliminary Draft of a Transboundary Analysis (continued).

Issue	Sources/Causes	Impacts	Scale	Severity	I/W Indicators (P, S, E)	Project \Program to Address Issue	Activity
Fisheries							
Over-fishing of target species	Commercial fishing operations	Hake, croaker, southern blue whiting, Patagonian toothfish, sea trout, southern king crab, and southern fake king crab	Regional	Moderate to high depending on species	Hake Catches are controlled via quotas consistent with sustainable level (S)	1. Sustainable Fisheries Management Project 2. Uruguay MM	1. ITQ system and Monitoring, Control and Surveillance System 2. Same as above
Over-fishing of non-target species	Commercial fishing operations	Sharks, juvenile hake, etc.	Regional	Moderate-high (suspected, but not fully documented)	By catch is reduced (S)	1. CPMM 2. Coastal Zone Mgt. II 3. Uruguay MM	1. Assessment of size and composition of by-catch; pilot gear changes 2. Mitigation in artisanal fisheries 3. Pilot gear changes
Incidental capture of marine mammals	Commercial fishing operations	Dusky, commerson, and peale dolphins, and southern sea lions	Regional	Low to moderate	Incidental Captures are reduced (S)	1. CCPMM 2. Coastal Zone Mgt. II 3. Uruguay MM	1. Pilot gear changes 2. Mitigation in artisanal fisheries 3. Pilot gear changes
Incidental capture of seabirds	Commercial fishing operations, especially longliners and trawlers	Penguins, albatross, petrels, and seagulls	Regional	Unknown	Incidental Captures are reduced (S)	1. CCPMM	1. Assess extent of problem
Offal generation	Commercial fishing operations and processing plants	Bird populations and benthic organisms, and human populations (i.e., through smell)	Regional	Low	HACCEP compliance Measurement of anaerobic conditions at disposal sites (P)	1. Pollution Mgt. Project 2. Uruguay MM	1. Puerto Madryn Solid Waste subproject 2. TBD
Habitat alteration and destruction	Commercial fishing operations, especially trawlers and dredges		Regional, however, impacts are expected to be more	Unknown	Video Surveys of selected bottoms (E)	1. Potential New operation under discussion	TBD

			pronounced in certain areas such as the Gulf of San Jorge				
Genetic erosion	Commercial fishing operations, primarily jiggers	Illex squid	Regional	Unknown	Genetic analysis (E)	1. Potential New operation under discussion	TBD

ANNEX 2. Preliminary Draft of a Transboundary Analysis

Issues	Sources/ Causes	Impacts	Scale	Severity	I/W Indicators (P,S, E)	Project \Program to Address Issue	Activity
Other							
Introduction of non-native species	Ballast water	Unknown, but can be quite significant and with high economic costs.	Regional	Unknown	Identification of exotic species or diseases (E)	CPMM Maritime Front Project	Monitoring of status of exotics, preparation of action plans to address specific threats under competitive grant component. To be confirmed during implementation.
Climate change	Accumulation of greenhouse gases in the atmosphere	Shifts in biological productivity, temperatures, currents and potentially destruction of some ecosystems	Global	Unknown	Temperature measurements, ocean current measurements, biological productivity (E)	UNDP GEF Funded Climate change project	Climate modeling, Mitigation studies
Toxic algae	Oceanographic conditions	Human poisoning and deaths, finfish and shellfish poisoning, and fish deaths	Regional	Low-moderate	Bioassays (E)	Maritime Front Project (to be confirmed)	To be confirmed during implementation.
Ozone depletion	CFC	Diminished primary productivity, genetic lesions, etc.	Global	Moderate-high	Ground level UV B measurements (E)	Montreal Protocol: Argentina is signatory	Reduction in emission of CFCs.

Acronyms:

CCPMM = COASTAL CONTAMINATION PREVENTION AND MARINE MANAGEMENT (the proposed Project)
Uruguay MM = URUGUAY MARITIME MANAGEMENT
TBD = To Be Determined

International Waters Indicators:

P: Process Indicators
S: Stress Reduction Indicators

E: Environmental Status Indicators

ANNEX 3.

Detailed Description of Changes in Project Scope

(i) Shifts from incremental to baseline funding

Marine Biodiversity Protection in Fisheries Management: The Project Brief approved by Council in 1998 indicated that the proposed Project would address the problem of over-fishing of key commercial species (mainly hake) and would improve the understanding of impacts of fishing activities on marine biodiversity. The Fisheries component aimed at improving: (i) the information base and policy framework for addressing the problem of over-fishing; and, (ii) the understanding of direct and indirect linkages between fishing practices and marine and coastal biodiversity. In addition, specific tools for biodiversity protection such as marine protected areas were to be introduced.

With respect to item (i), the Bank conducted sector work in 1998-99 on these issues, helping to develop an adequate information base; the resulting Sustainable Fisheries Management LIL, approved in September, 2000, will continue to strengthen the information base and will also address the policy framework (Fisheries Law, IQCs, training, etc.) for managing the problem of over-fishing. Therefore, these activities are now presented in the attached PAD as baseline .

With respect to item (ii), this sub-component remains in the proposed project as an incremental activity meriting GEF support. Assessments made during project preparation lead us and our counterparts to conclude that the knowledge base about the condition and health of the Patagonian marine ecosystem is poor and haphazardly tracked. For fisheries, in particular, there are limited systematic studies evaluating the impacts of fishing activities on marine biodiversity. Based on these findings, the emphasis of the incremental activities is on: (a) improving the knowledge base on linkages between fisheries and marine biodiversity; (b) piloting marine protection tools, such as more selective fishing gear; (c) improving local capacity to utilize this knowledge; and (d) preparing the foundation for future establishment of marine reserves by developing technical and regulatory studies.

(ii) Shifts in composition of GEF expenditures

Increased Emphasis on Capacity Building: Following the change in administration, the Environment Undersecretariat indicated that the project design did not adequately address the large capacity gaps and lack of collaboration incentives among public and not-for-profit institutions involved in maritime management and marine conservation in the Patagonian Provinces. This assessment was confirmed by other project stakeholders (NGO's , research bodies) during the two consultative workshops held during project preparation in Ushuaia and Puerto Madryn. To address concerns raised by both public sector and civil society stakeholders, capacity-building activities have been strengthened in two ways:

(i) capacity building at the central government level for improved coordination of environmental policy has been strengthened (see PAD Annex 2, Sections 3.1, 3.2, and 3.3); and

(ii) a regional capacity building sub-component to encourage collaboration and applied research for marine biodiversity protection and pollution abatement has been added (see PAD Annex 2, Section 2.3 for a detailed description of the proposed matching grant program).

Incremental cost support of the expanded capacity-building sub-component at the central level (item (i) above) is proposed to increase from $0.7 million at WP entry (8% of GEF funding) to $1.92 million in the final project design

(or 23% of GEF funding). The incremental cost of introducing the regional matching grant program amounts to $2.6 million (31% of GEF funding), and will generate dual benefits related to both capacity building as well as knowledge management/improved marine biodiversity protection. The increased emphasis on capacity-building is expected to contribute to improved institutional and social sustainability of global benefits in the post-project implementation period.

Electronic Marine Information Infrastructure: At the time of WP entry, the cost of establishing an Electronic Marine Information Infrastructure (EMII) as a tool for enhancing navigational safety and for controlling marine traffic, including oil tankers and fishing vessels, was estimated at $8.0 million (of which the agreed GEF incremental cost share was $4.7 million or 56% of total GEF support). The reason that costs were so high at that time was that access to satellite information required the purchase of five differential Global Positioning System (GPS) decoders and their installation in ground-based stations (without a decoder, the positioning error could be up to 100 meters). However, the US government (which designed and operates the GPS) has recently decided to discontinue use of the "selective availability channel" that required the special decoders, and to allow direct access between ships and satellite for accurate positioning information (within a few meters). As a result of this US policy change, the EMII component will deliver the same electronic information to the shipping industry as envisaged with the original design, but at a much lower cost: $1.91 million total cost, of which $0.94 million is proposed for GEF incremental cost support (11% of total GEF support).

(iii) Project costs/GEF leveraging

As mentioned above, the total cost of associated baseline investments and incremental GEF project components has increased from $28.85 million at WP entry to $36.76 million following appraisal. This represents a leveraging of $7.91 million, comprising new baseline assistance from the WB ($5 million for the LIL fisheries program), and increased government counterpart and private sector participation amounting to $2.91 million. The GEF share of total baseline/incremental project costs has decreased from 29% at WP entry to 22% as now appraised. This reflects the leveraging that has occurred during project preparation due to GEF involvement.

(iv) Component Realignment

During project preparation, a new government was elected in Argentina and ministerial responsibilities were reorganized. To ensure effective project implementation, project activities have been clustered into components corresponding to the functional mandates of the three lead public sector agencies involved in this sphere: PNA (the Coast Guard), SHN (Hydrographic Service), and SDSyPA (Natural Resources and Environment Secretariat). As a result, the number of components has been reduced from five at WP entry stage to three currently. PNA will be responsible for Components 1:1 and 1.2 A addressing improving prevention and response to oil spills and vessel tracking systems (formerly components B and D). SHN will be responsible for Components 1.2B and 2.1 addressing hydrographic mapping of critical zones, improving the electronic charts system, improving the knowledge base and identifying ecologically sensitive areas (formerly component C, as streamlined due to the approval of the WB LIL). Finally, SDSyPA will be responsible for developing marine protection tools, promoting capacity building and knowledge sharing on marine biodiversity protection, and capacity Building, M&E and overall project management (formerly components A and E). The clustering of project activities by component as conceived at WP entry stage and in the attached PAD for CEO endorsement is presented in Table 1 attached.

(v) Sharpening of the Project Logical Framework

In the Project Brief submitted for WP entry, the associated baseline investments and incremental activities contributing to achievement of global objectives were combined in a single project financing plan (total costs as

mentioned above: $28.85 million), merging domestic and global benefits and performance indicators in the logical framework (Annex 1 of the Project Brief for WP entry). This framework included elements of already approved IBRD projects (e.g., Pollution Management) which were providing the platform for proposed GEF incremental activities.

During final project preparation, project stakeholders became confused and concerned that they would be held accountable for activities financed under associated but separate baseline projects. To remove this source of confusion and anxiety, the attached PAD describes the associated baseline investments, costs, and expected outputs in a separate section which deals with Government Strategy (see Section B.2 (b) of the PAD). The cost of the associated baseline activities is estimated at $18.0 million. The description and cost of the proposed GEF project is limited to those activities which are incremental to the associated baseline investments and whose purpose is to generate global benefits. The cost of the incremental GEF project is estimated at $18.76 million (of which GEF is $8.35 million).

As a consequence of the separate description of associated baseline investments and incremental GEF project components, it has been possible in the final PAD attached to sharpen the logical framework presentation. In the logical framework submitted for CEO endorsement, the proposed project activities are directly linked to specific outputs and performance indicators with global benefits (see PAD, Annex 1).

Table 1: Outputs at WP entry and CEO Endorsement stages

Components at Work Program ENTRY:	**GEF Outputs:**	**APPRAISED COMPONENTS:**	**Outputs:**
A. Institutional Strengthening to Mainstream Environmental Policy **(GEF $0.3 million , 4% of total GEF)** and, **E. Program Coordination and Management** **(GEF $0.4 million; 5% of total GEF)**	Incremental support to national environmental agency to take catalytic role in addressing marine biodiversity protection, coastal pollution prevention, and sustainable fisheries management. Financing of Steering Committee and institutional arrangements for implementation under each component.	**3. Capacity Building, M&E and Project Management** 3.1 Local Capacity Building and Dissemination 3.2 Monitoring and Evaluation 3.3 Project Management **(GEF $1.92 million; 23% of total GEF)**	3.1 Workshops and consultancies to enhance the role of the national government as well as strengthen the marine resources management capacity of provincial and municipal governments and disseminate information generated by the project 3.2 Monitoring and Evaluation (includes support for Consultative Group of Patagonia COFEMA to monitor project outputs)
B. Control and Prevent Marine and Coastal Pollution **(GEF $1.25 million; 14% of total GEF)**	(i) Completed cross-sectoral Environmental Analysis of Ecological Threats to Hot Spots and produced sensitivity maps. (ii) Completed oil spill trajectory modeling system and oil spill contingency plans for 2-3 coastal areas (iii) Develop SAP (Strategic Action Plan) through stakeholder consultation. (iv) Implement SAP; GEF funding focused on capacity building and reasearch.	**1. Maritime Pollution Prevention** **1.1 Improve preparedness and response to oil spills (GEF $1.20 million; 14% of total GEF)**	(Sensitivity Maps are outputs of Component 2. Marine Biodiversity Component-next page) a) Improved organization and analysis of contingency plans using modern tools for database organization b) Extensive training for effective oil spills response c) Oil spill trajectory modeling d) Improved enforcement of MARPOL regulations on ship-waste discharges

Components at Work Program ENTRY:	**GEF Outputs:**	**APPRAISED COMPONENTS:**	**Outputs:**
D. Develop and Establish an Electronic Marine Information Infrastructure **($4.7 million; 56% of total GEF)**	(i) Establish Differential GPS Stations, Establish Data Networks and Support Quality Control (ii) Create Electronic Nautical Charts and Harbor Charts for the Argentine Coastline (iii) Provision of Baseline Data, Training and Capacity Building:	**1.2 Reduce navigational risks introducing a marine electronic infrastructure program** **(GEF $0.94 million; 11% of total GEF)**	a) Enhancing the Vessel Tracking System. b) Hydrographic mapping of critical zones and improvement of the electronic charts system
C. Promote Sustainable Use of Southwest Atlantic Fisheries **(GEF $1.7 million; 20% of total GEF)**	2.1.1 Stakeholder consultation completed by end of PY2 2.1.2 Sustainable Fisheries Action Plan, including relevant policies, agreed upon and operational by end of PY2. (The SFA was expected to include, as written in PCD text: i. identify the impact of commercial fishing practices on marine and coastal biodiversity; and,	(See Attached file for - Fisheries LIL Outputs) **2. Marine Biodiversity Protection** **(GEF $1.74 million; 21% of total for 2.1 and 2.2)** 2.1 Improve knowledge base about Patagonia shelf and complete identification of ecologically sensitive areas	a.i) Patagonian tidal wave model for simulating oil spill trajectory a.ii) Pilot ocean monitoring by oceanographic buoys a.iii) Extensive ocean monitoring by ship using conventional methodologies b.i) Transboundary analysis of Patagonian ecosystems b.ii) Completion of the sensitivity atlas to improve knowledge base on the Patagonia shelf and complete identification of ecologically sensitive areas. c) Inter calibration of key marine institutions

Components at Work Program ENTRY:	**GEF Outputs:**	**APPRAISED COMPONENTS:**	**Outputs:**
	ii. explore the direct and indirect links between alternative fisheries management scenarios and biodiversity conservation. iii. establishing marine protected areas or fisheries reserves for maintaining marine biodiversity.) 2.1.3 Monitoring system for Southwest Atlantic fisheries operational by end of PY3 2.2.1 Electronic Marine Information Infrastructure, including a network of 7 stations and X number of staff trained, fully operational by end of PY3. 2.2.2 X number of paid users of EMII by end of PY5	2.2 Develop marine protection tools. (Extension of existing MONPESAT system or implementation of new vessel tracking system to be evaluated under Component 1.2 above) 2.3 Subprojects under Matching Grant Program **(GEF $2.55 million; 31% of total GEF)**	a) Priority setting of areas for marine biodiversity and preparation of legal and technical aspects for piloting marine reserves reducing incidental catch of birds and mammals. b) Evaluation of the incidental catch of birds and mammals and development of an action program based on the severity of impacts a) Although demand driven, identified subprojects include: • Evaluation of impacts of by-catch on marine biodiversity; • feasibility analysis of alternative or more selective fishing gear; and, • commercial potential for non-traditional fisheries to reduce pressure on commercial species. (includes funding for evaluation committee)

Components at Work Program ENTRY:	**GEF Outputs:**	**APPRAISED COMPONENTS:**	**Outputs:**

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Document of
The World Bank

Report No:

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT FROM THE

GLOBAL ENVIRONMENT FACILITY TRUST FUND

IN THE AMOUNT OF SDR 6.5 MILLION (US$8.35 MILLION EQUIVALENT)

TO THE

ARGENTINE REPUBLIC

FOR THE

COASTAL CONTAMINATION PREVENTION AND

MARINE MANAGEMENT PROJECT

(April 25, 2001 Draft)

Argentina, Chile, Paraguay and Uruguay Country Management Unit
Environmentally & Socially Sustainable Development Unit
Latin America and Caribbean Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 2000)

Currency Unit = Argentine peso
US$1.00 = Arg$1.00

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

CENPAT	-	Centro Nacional Patagónico, or the National Patagonian Center
COFEMA	-	Consejo Federal de Medio Ambiente, or National Environmental Council
FPN	-	Fundación Patagonia Natural, or the Natural Patagonia Foundation
LME	-	Large Marine Ecosystem
IMO		International Maritime Organization of the United Nations
INIDEP	-	Instituto Nacional de Investigación y Desarrollo Pesquero, or the National Research and Fisheries Development Institute
M&E	-	Monitoring and Evaluation
MARPOL	-	International Convention for the Prevention of Pollution from Ships
MSDEP		Ministry of Social Development and Environmental Policy
NGOs	-	Non-Governmental Organizations
PEU		Project Execution Unit
PNA	-	Prefectura Naval Argentina, or the Argentine Coast Guard
QMS	-	Quota Management System
SDSyPA		Secretaría de Desarrollo Sustentable y Política Ambiental, or the Sustainable Development and Environmental Policy Secretariat
SHN	-	Servicio de Hidrografía Naval, or the Naval Hydrographic Service
SOLAS	-	International Convention for the Safety of Life at Sea (1960, 1974)
UFI	-	Unidad de Financiamiento Internacional
UNPA	-	Universidad Nacional de la Patagonia, or National University of Patagonia

Vice President:	David de Ferranti
Country Manager/Director:	Myrna L. Alexander
Sector Manager/Director:	John Redwood
Task Team Leader/Task Manager:	Laura E. Tlaiye

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ARGENTINA

COASTAL CONTAMINATION PREVENTION AND MARINE MANAGEMENT

Project Appraisal Document

Latin America and the Caribbean Region
Argentina, Chile and Uruguay Country Management Unit
LCSEN

Date: April 25, 2001
Team Leader: Laura E. Tlaiye
Country Manager/Director: Myrna L. Alexander
Sector Manager/Director: John Redwood
Project ID: P049012
Sector(s): VP - Pollution Control / Waste Management
Lending Instrument: Global Environment Fund
Poverty Targeted Intervention: No

Project Financing Data: GEF Grant
For Loans/Credits/Others:

Amount (US$m/SDRm): SDR 6.5 million (US$8.35 million equivalent)

Proposed Terms: Grant

Financing Plan: Source	Local	Foreign	Total
GEF Trust Fund	6.09	2.26	8.35
Government Counterpart	4.35		4.35
Beneficiaries	6.06		6.06
Sub-Total	16.50	2.26	18.76
Baseline Financing:			18.00
Total Project Cost			36.76

Borrower/Recipient: Argentine Republic

Responsible agency: Secretariat of Sustainable Development and Environmental Policy (SDSyPA)

Estimated disbursements (Bank FY/US$M):

FY	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007
Annual	0.47	1.90	2.44	1.67	1.56	0.31
Cumulative	0.47	2.37	4.81	6.48	8.04	8.35

Project implementation period: 5 years
Expected effectiveness date: December 31, 2001 **Expected closing date:** December 31, 2006

A. Project Development Objective

1. Project development objective: (see Annex 1)

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:

(i) Improving oil spill prevention and response capacity and preventing ship-based pollution;
(ii) Improving the knowledge base about the Patagonia marine environment and its biodiversity; and
(iii) Building capacity and promoting regional knowledge sharing for sustainable management of marine resources.

2. Global objective: (see Annex 1)

The Project's global environmental objective is to support long-term protection of international waters and the conservation and sustainable use of marine resources. This objective will be achieved by financing incremental activities aimed at improving Argentina's capacity to protect marine biodiversity and safeguard Patagonia's marine ecosystem.

3. Key performance indicators: (see Annex 1)

The Project's main expected outcomes/impact indicators are: (i) reduced ship-based pollution (oil/waste spilled or discharged per ton transported and % of ballast water treated in ports); (ii)identification of priority areas with sensitive marine ecosystems laying a foundation for protection; and, (iii) improved capacity to incorporate lessons from pilot marine protection projects in government policies.

The key output indicators for the Project are:
(i) Prevention of oil spills and ship-based pollution: integrated zonal oil spill contingency plans leading to a more effective response to oil spills; improved navigational aids in high-risk channels and passages; and, improved control of ship-based pollution (operational discharges and solid waste);
(ii) Improved knowledge base: more systematic and internationally compatible set of oceanographic and biological data; sensitivity atlas including identification of ecologically sensitive areas in Patagonia's waters; setting priority areas for marine biodiversity protection; and
(iii) Capacity building: training and lessons from pilot projects on pollution prevention and marine conservation tools (e.g., alternative fishing methods, pollution mitigation techniques) leading to improved institutional capacity in national and provincial governments, and in the local NGO and research community to work more cooperatively in evaluating the effects of economic activity on marine biodiversity.

B. Strategic Context

1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)
Document number: 20354
Date of latest CAS discussion: CAS discussed by the Board of Executive Directors on June 27, 2000.

The Project directly supports the CAS goal of promoting sustainable management of natural resources and protection of biodiversity. This is achieved by building institutional capacity to prevent ocean pollution and by improving the knowledge base about Patagonia's marine environment and its biodiversity. In addition, the Project also enhances the central government's ability to harmonize environmental policies among provincial governments along the Patagonia coastline and fosters participation of other non-public stakeholders in the development of marine protection measures.

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

Argentina ratified the Convention for Biological Diversity on November 22, 1994. The proposed project is consistent with the GEF Operational Strategy in that it supports long-term protection of international waters and the conservation and sustainable use of biodiversity. The Project complies with the GEF Operational Programs "Coastal, Marine and Freshwater Ecosystems," "Water-body Based", and "Contaminant-Based" (Operational Programs No. 2, 8 & 10, respectively). The Project enables the development of a richer and more integrated knowledge base about the dynamics of marine biodiversity and the Patagonian Large Marine Ecosystem (LME) including the effects of resource extraction and pollution. By continuing the consultation and collaboration between the central and provincial governments initiated during the preparation phase, the Project provides capacity building to increase the opportunity for adoption of marine protection in provincial waters (up to 12 miles from the coast). Furthermore, the Project promotes increased enforcement of regulations against ship-based chemical washings and a stronger emphasis on oil spill prevention through improved navigational aids. The Project's matching grant program will build capacity of local NGOs and research institutions by co-financing pilot projects and studies that promote fishing technologies with reduced impacts on marine biodiversity and improve the usefulness of research for protection of the Patagonia marine ecosystem.

2. Main sector issues and government strategy (Baseline Situation):

Within the South Atlantic Large Marine Ecosystem (LME) comprising a large expanse of international resources lays the Patagonia Shelf LME, a biologically productive area supporting a wide variety of marine life. A recent priority setting analysis[1] has further 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 (see Figure 1 in Annex 2). These ecoregions, for simplicity referred to here as the *Patagonia marine ecosystem,* cover approximately 600,000 kms^2 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.

(a) Main *Sector Issues.* The main sector issues affecting the sustainability of Patagonia's marine ecosystem are:

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 evident to all 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, and financing and accountability of the

[1] Sullivan Sealey, K. and Bustamante, G. 1999. *Setting geographic priorities for marine conservation in Latin America and the Caribbean.* The Nature Conservancy. (Under the Biodiversity Support Program funded by USAID).

national fisheries management agency. The impacts of overfishing go beyond the commercial species and a sector issue yet to be addressed is the integration of biodiversity concerns and marine ecosystem sustainability into the fisheries management policy.

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. Argentina is a signatory of MARPOL, and *the Prefectura Naval Argentina* (equivalent of the Coast Guard in other countries) is by law *(Ordenanza 8-98 Regimen para la Protección del Ambiente)* the responsible agency for preventing and fighting pollution from ships, as well as pollution from hydrocarbon and hazardous materials that affect the marine environment originating from maritime terminals, oil buoys and off-shore platforms. PNA also controls bilge waters and operational discharges and solid waste from ships (fishing vessels, oil tankers, tourist vessels and cruise boats). The regulatory framework mandating PNA to perform these controls is adequate; however, PNA's resources and institutional capacity for enforcement are insufficient. Hence, the bulk of the institution's attention is directed to disaster management with little progress made so far in preventive measures. For example, use of electronic navigational aids to prevent accidents is in its infancy. Furthermore, much of the oil spill response equipment available in Argentina resides in private stockpiles and, while PNA has developed some sharing arrangements with private companies, much remains to be done to maximize the synergies of private oil spill response capacity.

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 about the Patagonia's Marine Environment. A number of research institutions have had a central role in developing the knowledge base about the marine environment; however, three problems reduce their contribution to management decisions: (i) the information is not sufficient nor properly integrated; (ii) the institutions tend to minimize knowledge sharing because of competition for research funding and prestige; and, (iii) these institutions have limited dialogue with policy makers and have few applied marine research programs.

Weak Institutional Capacity. Article 41 of Argentina's Constitution establishes a government mandate to protect biodiversity, and specifically requires the central government to set minimum standards for environmental protection and requires provincial governments to complement these standards with regulations. Article 124 of the same Constitution indicates that the provinces hold sovereign control over the natural resources in their territories. Hence, provinces have jurisdiction over all living resources within their territorial waters up to 12 miles from the coast. The national government is yet to enact the minimum standards for environmental protection and the needed coordination with provincial governments has been slow to take hold. While Argentina has made significant progress in protecting terrestrial ecosystems with enhancements of the protected areas system (national and provincial parks), marine ecosystems remain relatively less documented and unprotected. The provincial institutions in Patagonia could benefit from capacity building for environmental management, and specifically for biodiversity protection, including greater collaboration with the NGO community.

(b) Government Strategy (Baseline):

Fisheries Management. To address the serious issues outlined above, a new fisheries' law went into effect in January 1998 with the goal of developing an improved framework for fisheries management. The law mandated the implementation of a quota management system (QMS). QMS, by assigning quasi-property rights to harvest fish, is emerging as an international best-practice means of addressing the inefficiencies and perverse incentives associated with open-access or common property resource systems.

In order to address the immediate risk of stock collapse of key commercial species, the GOA limited catch for the first quarter of CY2000 to 35,000 tons and limited the activities of the freezer-factory fleet to a reduced area. The Sustainable Fisheries Management Project, a $ 5 million World Bank LIL, will help build capacity for operation of the QMS for fisheries, focusing on restoring the sustainability of commercial fisheries species. Management Project primarily supports the strengthening of the fisheries authority to carry out catch monitoring and control functions required under QMS, including a license registry, quota registry, dockside and at-sea inspection service, on-board observer program, and improved utilization of information for these control activities.

Oil-Spills. The national system for oil spill prevention and response is based on the development of contingency plans mandated by law since 1998. The oil industry has prepared about 1200 individual plans for each platform, port, vessel, and loading and unloading facility. PNA is reviewing these plans for approval but this will take time because of PNA's limited resources. Recognizing the importance of increasing PNA's capacity to lead oil spill response efforts and prevent pollution, the GOA has obtained assistance from the IDB (through its Port Modernization Loan) to strengthen PNA's capacity through the acquisition of mitigation equipment. Yet, oil skimmers, barriers and similar oil spill mitigation equipment may be insufficient or not deployed to its full potential without adequate planning and capacity to rapidly manage a response effort.

Land-based Pollution. Local governments along the Patagonia coast, from the southern part of the Buenos Aires Province to the Provinces of Rio Negro, Santa Cruz, Chubut, and Tierra del Fuego, together with the national government are increasingly implementing measures to reduce land-based pollution. For example, investments in wastewater treatment are taking place in Puerto Madryn (Province of Chubut) and in solid waste disposal in Bahía Blanca (Province of Buenos Aires).

Capacity Building. Assistance to improve the capacity to address pollution issues is being provided to Patagonian municipalities through the World Bank's Pollution Management Project. The project is supporting the development of a model low-cost solid waste management facility, starting with Puerto Madryn, to be disseminated to other municipalities. In addition, the project supports laboratory equipment and training to create capacity at the municipal level for environmental quality monitoring. Through an Institutional Development Grant to a local NGO (Fundación Patagonia Natural), the Bank supported a training program on public involvement for municipal environmental management. The IDF helped raise awareness about pollution problems among other municipalities in Patagonia and many of them are working to find solutions. Furthermore, the central government received assistance from IDB for strengthening the capacity of environmental institutions, primarily in the central government, but also benefiting provincial institutions. The assistance was mainly aimed at improving administrative functions of the national agency (improving information systems and support infrastructure), reviewing and revising regulations on hazardous waste and proposals for minimum environmental quality standards, and integrating environment in education programs. The support did not address pollution of oceans and protection marine ecosystems which are mainly the responsibility of Provinces and the PNA.

Improving Knowledge Base. Several government actions relevant to the proposed Project support development of information systems in Patagonia and marine research and monitoring. The government

maintains a national environmental information system with nodes in Patagonian provinces and supports a marine research program through its Science and Technology system. Finally, SDSyPA in collaboration with the national space agency is implementing a satellite-based monitoring program of the Southern Right Whale.

A summary of expenditures under the baseline scenario is presented below:

Government Strategies	Total	Bank	IDB	GOA
Reduce overfishing	8.5	5.0	--	3.5
Prevent oil spills and ship-based pollution	4.5	--	2.5	2.0
Reduce land-based pollution	2.1	1.0	--	1.1
Build capacity and improve knowledge management in Patagonia	2.9	1.8	0.3	0.8
TOTAL	18.0	7.8	2.8	7.4

While the baseline scenario described above addresses important issues for sustainable national development, it does not fully integrate actions, which would protect the global environment. **Outstanding sector issues** that remain to be addressed include:

- *Fisheries*: efforts to better understand and reduce additional impacts caused by overfishing, such as imbalances in other species, by-catch, and incidental trapping of sea mammals and birds are not being addressed.
- *Oil spill prevention*: oil spill mitigation equipment may be insufficient without adequate planning and capacity to rapidly manage a response effort. A rational approach would be to consolidate site-specific plans into local response plans so that all available mitigation equipment and human resources within a given area are coordinated regardless of origin (private or public). An area's contingency plan could include bringing in equipment from other parts of the country or even from abroad.
- *Ship-based pollution*: Current GOA programs/strategies do not take advantage of modern tools and electronic infrastructure technology available around the world, which could accelerate and enhance the country's capacity to reduce the impacts of ship-based pollution. Measures to reduce navigational risks and improved monitoring of ship-waste could provide for immediate prevention and be of importance as models for other countries in similar economic circumstances.
- *Improving knowledge base*: An improved knowledge base is necessary to support decisions on protection of marine resources. The human resources are in place but appropriate incentives for collaboration and for sharing lessons with regional policy makers are still missing.
- *Institutional capacity*: National and provincial environmental authorities need to increase dialogue and deepen their understanding of marine biodiversity and ecosystem sustainability. A strengthened COFEMA offers a unique opportunity as a platform for this dialogue.

Recognizing the above gaps, the GOA is already working on developing protection of coastal marine ecosystems with support from GEF through UNDP for a coastal zone management plan for the Patagonia provinces. The program is geared to terrestrial activities and artisanal fisheries and does not overlap with the proposed Project (see section D. 2 for more details on this program).

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

The Project will address the pending sector issues described in the preceding section:

- *Improving the understanding of Patagonia's marine ecosystems and the impacts caused by fishing and polluting activities;*

- *Enhancing prevention of maritime pollution from oil transport and of other ship-waste;*
- *Improving capacity of national and provincial authorities and other stakeholders to protect marine biodiversity.*

The strategic design choices include a framework cooperative arrangements between the national environmental authority (SDSyPA) and key players in the above sector issues (PNA for maritime pollution, SHN and research institutions for knowledge on the marine environment and fisheries management, and provincial environmental authorities) rather than one based on pressure. This approach is deemed more effective and consistent with the national authorities policy of closer working relationships with the provinces and local stakeholders. To foster a true partnership, the Project requires cost sharing by all beneficiaries to increase ownership and accountability for results.

C. Project Description Summary

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

The proposed GEF project complements Argentina's efforts to reduce pollution of the Patagonian marine environment and improve sustainable management of marine resources by supporting incremental activities aimed at protecting marine biodiversity and safeguarding Patagonia's marine ecosystem. The project is composed of three primary components. The specific objectives, estimated costs, and GEF financing for these components are shown below.

Component	Indicative Costs (US$M)	% of Total	GEF financing (US$M)	% of total financing
1. Maritime Pollution Prevention				
1.1 Improve preparedness and response to oil spills and prevent ship-based pollution				
A. Improved organization and analysis of contingency plans using modern tools for database organization	0.13	1%	0.13	1%
B. Extensive training for effective oil spills response	1.25	7%	0.91	11%
C. Oil spill trajectory modeling	0.07	0%	0.06	1%
D. Improved enforcement of MARPOL regulations on ship-waste discharge	0.16	1%	0.10	1%
Subtotal Component 1.1	1.61	9%	1.20	14%
1.2 Reduce navigational risks by introducing a marine electronic infrastructure program				
A. Enhancing the Vessel Tracking System	0.05	0%	0.05	1%
B. Hydrographic Mapping of Critical Zones and Improving the Electronic Charts System	1.86	10%	0.89	10%
Subtotal Component 1.2	1.91	10%	0.94	11%
Total Component 1	**3.52**	**19%**	**2.14**	**25%**
2. Marine Biodiversity Protection				
2.1 Improve knowledge base and identify ecologically sensitive areas				
A. Targeted programs for understanding the dynamics of ocean production and environmental degradation of key areas of the Patagonia ecosystem	2.47	13%	1.13	14%
B. Transboundary analysis and sensitivity atlas to improve knowledge base on the Patagonia marine ecosystem and complete identification of ecologically sensitive areas	0.21	1%	0.10	1%
C. Inter-calibration of key marine laboratories	0.63	3%	0.20	2%
Subtotal Component 2.1	3.31	17%	1.43	17%
2.2 Develop marine protection tools				
A. Priority setting of areas for marine biodiversity and analysis of regulatory and technical aspects for piloting marine reserves	0.24	1%	0.17	2%
B. Evaluation of the incidental catch of birds and mammals and development of an action program based on the severity of impacts	0.25	2%	0.14	2%
Subtotal Component 2.2	0.49	3%	0.31	4%
2.3 Promote capacity building and knowledge sharing on marine biodiversity protection				
A. Matching Grant Program	8.66	46%	2.55	31%
Subtotal Component 2.3	8.66	46%	2.55	31%
Total Component 2	**12.46**	**66%**	**4.29**	**52%**
3. Capacity Building, M&E and Project Management				
3.1 Local Capacity Building and Dissemination	0.84	4%	0.49	6%
3.2 Monitoring and Evaluation	0.52	3%	0.32	4%
3.3 Project Management	1.42	8%	1.11	13%
Total Component 3	**2.78**	**15%**	**1.92**	**23%**
PROJECT TOTAL	**18.76**	**100%**	**8.35**	**100%**

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

The project supports an improved capacity of key institutions responsible for preventing and mitigating ocean pollution and promotes knowledge sharing and collaboration between central and regional marine resources research organizations and NGOs. In addition, the project promotes a stronger linkage between applied research and policy-making for the protection of marine resources.

3. Benefits and target population:

The most direct and quantifiable benefits of the proposed project will be:

(i) A stronger capacity for preventing ship-based pollution and responding to oil spills; and,
(ii) An improved knowledge base on pollution impacts on Patagonia's marine biodiversity and on marine protection tools.

The longer-term benefits of these improvements are enabling the protection of Patagonia's large marine ecosystem and its biodiversity.

The direct beneficiaries of the project are:

(a) The national and provincial governments: they will increase their appreciation of marine biodiversity through an improved information base, training, and collaboration with local constituencies that will help develop tools for its protection.

(b) The national and global marine resources research community: improved access to more information sources of greater quality and reliability.

(c) Coastal communities, tourism interests; and the international community reduced risk of oil spills affecting the shore communities and the marine resources, which represent Patagonia's coast main tourism attraction.

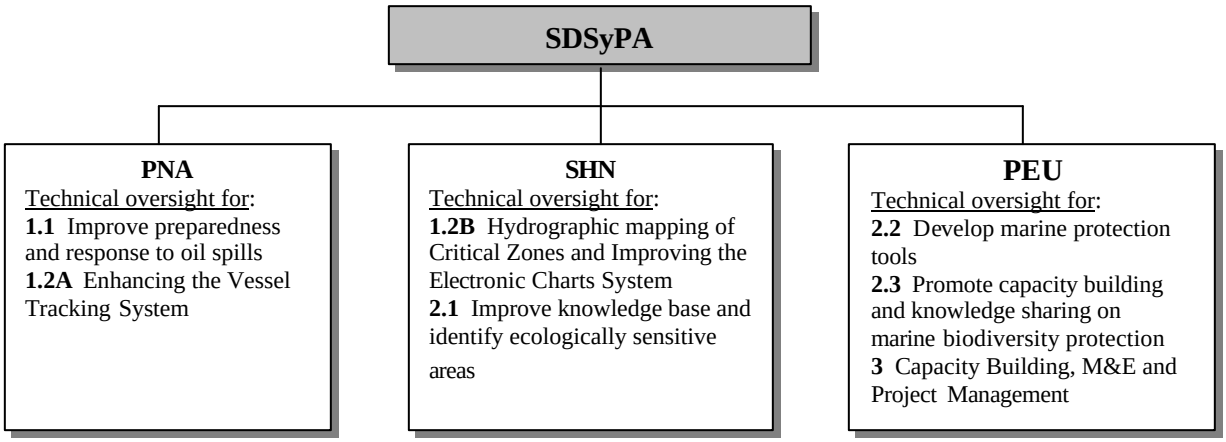
(d) The research institutions and NGOs participating in the matching grant program: their capacity and influence on policy-making is expected to be improved by participating in this project.

(e) The maritime shipping industry: navigational aids, improved charts and maps will improve conditions for vessel traffic safety with the associated reduction of accident risks.

In addition, a number of initiatives in other countries in Latin America and elsewhere will greatly benefit from the lessons learned through the tools tested in this Project. The electronic marine infrastructure tools to enhance pollution prevention and response and the matching grant program will inform design of future projects under preparation in Uruguay and Brazil.

4. Institutional and implementation arrangements:

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, and as shown in the diagram below, the PEU will share responsibilities with PNA and SHN. PNA and SHN would each appoint a Technical Manager, who will oversee the technical aspects of the respective tasks. Since these institutions are the main beneficiaries of these tasks, they have agreed to provide the corresponding counterpart funds.



UNDP will serve as a neutral party to receive and deposit the GEF grant funds and the counterpart funds into a single project account (no Special Account will be necessary) for timely payments for project purchases and consultant assignments. UNDP will provide this assistance under a standard Cost-Sharing Agreement, which includes an annex describing the special procedures for Bank funded operations indicating, inter-alia, that the procurement and financial reporting activities for the GEF funded portion of the project will follow Bank guidelines. UNDP's administrative fee would be covered as part of SDSyPA's counterpart funds for the Project.

The PEU will also receive support from a new Administration Unit within SDSyPA in areas of procurement, treasury, and financial management. The Unit was created to improve SDSyPA's project management capacity for all externally funded projects. SDSyPA's procurement and financial management actions are overseen by UFI (*Unidad de Financiamiento Internacional*) at MSDEP and coordination problems between SDSyPA and UFI have caused delays in the past. The Administration Unit within SDSyPA is expected to address these problems by clearly outlining contract processing responsibilities (including clearances by UFI). To further improve communication, UFI has appointed one of its professionals to interact with the Administration Unit at SDSyPA.

The establishment of the PEU and the Project Operations Manual (which outlines the project's implementation arrangements and includes an Annex with the Guidelines for the Matching Grant Program – Sub-component 2.3), as well as a satisfactory UNDP Cost-Sharing Agreement, will be a condition of effectiveness for the proposed Project.

Financial Management:

A Financial Management Specialist (FMS) has carried out an assessment of the project for PMR-based disbursements. The FMS found that the project has adequate internal controls and accounting systems to satisfy the Bank's minimum financial requirements; however, the project does not yet have in place an adequate project financial management system that can provide, with reasonable assurance, accurate and timely information on the status of the project as required by the Bank for PMR-Based Disbursements. Upon effectiveness, the PEU will request an initial disbursement to the UNDP project account for the first six months of planned expenditures, which will be documented on the basis of statements of expenditure (SOE), and full documentation for those claims made against contracts requiring the Bank's prior review. At the end of six months, the FMS will re-assess the Project Unit's capacity for PMR-Based Disbursements. The FMS has developed and agreed with the PEU a time-bound action plan for strengthening the financial management

system to achieve PMR-based disbursements. The project accounts will be audited annually by Argentina's *Auditoría General de la Nación (AGN).*

D. Project Rationale

1. Project alternatives considere d and reasons for rejection:

At PCD stage, the project originally proposed to directly address sustainable fisheries management and the associated biodiversity concerns. The Bank developed a deeper understanding of the fisheries sector issues through ESW and policy dialogue and, at the request of the GOA, prepared a separate Sustainable Fisheries Management operation currently at the negotiations stage which supports improved management practices and social assistance activities to mitigate the impact of reductions in fishing effort. The proposed Project design focuses on complementary activities on biodiversity conservation in the Patagonia area building a stronger knowledge base of the effects of fishing activity on biodiversity it also promotes testing of fishing technologies with reduced impacts on other species. These issues are gaining importance within the broader context of improved fisheries management.

2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed projects only)	
Bank-financed		**Implementation Progress (IP)**	**Development Objective (DO)**
Pollution Management	Argentina Pollution Management Project	S	S
Sustainable Fisheries Management	Argentina Sustainable Fisheries Management Project	**(not yet effective)**	**(not yet effective)**
Maritime Management	Uruguay Maritime Management Project (under preparation)		
Technical Assistance	Uruguay Technical Assistance II	S	S
Port Modernization	Uruguay - Forest Products Transport Project	S	S
Other development agencies			
Coastal Zone Management and Marine Biodiversity	UNDP/GEF Maritime Front Project (underway) UNDP/GEF Argentina Coastal Zone Management Project Phase II (underway)		
Port Modernization	IDB Argentina Port Modernization Program (underway)		

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

The proposed project is complementing and builds upon the above projects. Regarding GEF funded projects, design was developed on the basis of the experiences of the first UNDP/GEF supported project and in parallel with Phase II project. It specifically seeks to complement the above UNDP/GEF Coastal Zone Management Project Phase II in three aspects: (i) the scope of the UNDP/GEF project is mostly linked to coastal activities, such as coastal zone management, land-use planning, tourism management, whereas the proposed WB/GEF supported Project focuses on prevention of maritime pollution and marine biodiversity protection; (ii) the UNDP/GEF project also includes improvements in artisanal fisheries technologies to mitigate impacts on biodiversity, whereas the proposed project focuses on better understanding and mitigating the effects of large-scale fisheries on marine biodiversity; and (iii) the knowledge management activities and marine protection tools proposed, such as the preparatory work for piloting of marine reserves, would complement the programs planned under the UNDP/GEF project that mostly emphasize protection measures from land and conservation measures for terrestrial reserves. During project implementation, the PEU would liaise with the executing agency of UNDP/GEF project to continue a coordination effort initiated during the preparation phase. The overlap of several of the key consultants and consultation with relevant government officials in the preparation process facilitated the identification of complementary activities.

For Bank and IDB funded projects, the proposed project also complements the GEF funded Maritime Front Project by supporting activities aimed at developing the information base and capacity for understanding the dynamics of oceans and marine life. The maritime Front Project is being implemented by the joint Uruguay and Argentina Maritime Front Commission and the joint Rio de la Plata Commission is already building maritime management capacity in the region. The coordination between the projects is ensured because a key institutional leader on technical matters on the Argentinean side is the same for both projects: the Navy's Hydrographic Service.

In addition, the proposed project builds upon the baseline investments supported under the Bank's Pollution Management Project (environmental monitoring and waste management in Patagonia) and IDB's Port Modernization Project (improved waste management and oil spill response capacity in Patagonian ports).

3. Lessons learned and reflected in the project design:

Environmental projects in Argentina have offered two important lessons: (i) the need for local ownership and expanded use of local or regional specialists; and (ii) project success largely depends on implementation capacity at the executing agency (in this case, SDSyPA). The project incorporated an extensive process of consultation and use of national experts and its matching cost program continues to support local participation during implementation. An experienced procurement team that will support the project, a good Project Operations Manual, and UNDP's requirements for procurement and financial management are all expected to improve SDSyPA's capacity to implement the project although this remains as a risk.

4. Indications of borrower and recipient commitment and ownership:

SDSyPA, PNA, and SHN have demonstrated strong commitment to the Project as reflected by the official designation of a Project Coordinator and/or point person within their institutions and by pledging financial support to the project. Furthermore, the new leadership at SDSyPA sees this Project as an opportunity to strengthen the cooperation with provincial authorities and specifically requested that the Project be monitored by a Consultative Group of the Patagonian COFEMA (the subgroup of environmental authorities from the four Patagonian provinces). Other Project stakeholders also demonstrated their interest in the project by submitting a total of about 70 proposals during project preparation workshops held in two Patagonian provinces (Chubut and Tierra del Fuego). Some of these proposals formed the basis of the main project components and proposals for applied research and technology innovation projects, which motivated the matching grant program supported under Sub-component 2.3.

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

The external support provided to this Project is critical because the Bank is able to provide a wide range of practical experience from regional, coastal, and marine management programs (Mexico Marine Parks I and II, Mesoamerican Biological Corridor, Baltic Sea, Black Sea, Red Sea and Gulf of Aden, etc.) and acts as an honest broker among stakeholders. The global support by GEF facilitates the mobilization of government and stakeholder resources that would otherwise be very difficult to raise and helps address marine management issues that transcend national interests.

E. Summary Project Analysis

1. Economic (supported by Annex 4 – Incremental Cost Analysis):

The economic loss associated with a deterioration of marine environment in Patagonia is difficult to ascertain because of the lack of data on the highly complex processes and linkages involved. The only exception is the direct loss caused by overfishing: a sustained collapse of the hake catch is estimated to cost US$1.67 billion on a net present value basis. Excessive extraction of marine resources causes reductions in primary and secondary productivity of the oceans, which leads to alteration in the food chain. Pollution impacts materialize over the long term with increased mortality or morbidity and transport of toxic compounds across species. These impacts undermine the health conditions of marine species on which the tourism and fisheries industries depend; however, the specific economic losses are very difficult to predict. The information needed to conduct these types of analyses is necessary to support the economic rationale of future protection policies. The proposed Project promotes improved data collection and capacity to evaluate these impacts. In addition, the proposed emphasis on oil spill prevention is more cost-effective than remediation: a quick and well organized response in the first few hours of an oil spill determine the scale of coastal impacts and associated clean-up costs.

The results of the GEF incremental cost analyses (Annex 4) indicate that the "baseline" activities represent the course of action chosen by Argentina without explicit consideration of global benefits. By complementing these baseline activities with incremental resources for prevention of maritime pollution and enhanced capacity for protection marine biodiversity, additional global benefits would materialize.

2. Financial (see Annex 5):

The proposed Project seeks to utilize GEF financing to leverage additional government and stakeholder support for activities with global benefits that would otherwise not take place. For example, the matching grant program for innovation and applied research would leverage 70 cents for every 30 cents (US$) of GEF financing. Similarly, the government has pledged to finance most of the operational costs of ocean monitoring activities. The proposed investments in specialized studies for improved navigation and vessel tracking supported by GEF help catalyze financing by users in the maritime shipping industry. Finally, full-scale electronic charts and the sensitivity atlas would be sold to users support future updating and production costs.

Fiscal Impact:

The counterpart funds from the central government required for this Project are estimated at approximately US$4.35 million over 5 years which is considered a low fiscal impact for a country the size of Argentina. The Project leverages about US$6.1 million of non-government beneficiary counterpart further mitigating fiscal impact.

3. Technical:

The technical analyses supporting this Project included three assessments:

(i) The adaptability of electronic marine infrastructure tools to the existing human capacity, management traditions and counterpart financing capacity of the target institution. A local expert on oil spill contingency planning working with the assistance of an international specialist directly in charge of oil spill response efforts (from the International Tanker Owners Association) assessed prevention and mitigation needs and held extensive consultations with the oil industry, PNA, and SHN;

(ii) The extent and quality of data available about marine ecosystems and the application of this information. A group of local marine biologists reviewed existing sources and combined with the findings of a Biodiversity Overlay Study funded by GEF, recommended the activities included in the Marine Biodiversity Component;

(iii) Review of programs to provide incentives for applied research and technology innovation. The World Bank supports scientific development programs and environmental management projects involving competitive matching grant schemes (e.g., Chile's Millennium Science Initiative, Brazil's National Environment Project) which were used to inform project design.

4. Institutional:

Argentina's institutional framework for addressing maritime pollution and sustainable marine resources management requires strengthening. The key stakeholder in this Project are: (i) the national environmental authority (SDSyPA); (ii) PNA; (iii) SHN; (iv) the provincial environmental authorities; (v) the research community and NGOS; and (vi) the private oil and the fishing industry.

Under the country's federal system, provinces and municipalities have independent legislative and executive powers. SDSyPA has therefore very limited formal authority over provincial territories and waters (only in the area of hazardous substances when provinces lack their own laws) and has traditionally played a limited role in issues related to marine conservation. PNA is a decentralized agency of the Interior Ministry and its primary responsibility is civil protection in Argentine waters. PNA is the regulatory authority over polluting activities at sea and ports, although its enforcement capacity is generally weak. SHN, an agency of the Argentine Navy, is in charge of navigational safety and oceanographic data gathering for both civilian and strategic purposes. Although in recent years, SHN's research activities have been reduced due to budget restrictions, its technical staff remains highly regarded in the country and elsewhere. Patagonia is endowed with a capable and active research and NGO community interested in the marine environment. However, their actions tend to be isolated from one another in part due to competition for limited funding. The private oil industry and the fishing industry, who are experiencing very different economic conditions (the former doing very well and the latter facing a crisis due to the collapse of important commercial species) have enjoyed a relatively unregulated access to marine resources due to institutional weakness. The approach of the proposed project is to gradually improve institutional capacity for enforcement, strengthening the capacity of SDSyPA, PNA and provincial authorities, while also providing a framework for cooperation and participation of the private and non-official stakeholders in marine protection activities.

An encouraging sign of progress regarding environmental policy formulation is the importance placed by the national government on federal councils aimed at improving dialogue between the central government, the provinces, and other stakeholders. For example, fisheries management issues are being discussed through the Federal Fisheries Council, comprised of coastal provincial governments, one representative of SDSyPA, one representative of the Foreign Affairs Ministry, two representatives designated by the President and one representative of the Ministry of Agriculture, which chairs the council. Likewise, a Federal Environmental Council (FEC) gathers SDSyPA and the provinces together to discuss the nation's environmental issues and policies. SDSyPA was elected chair of the FEC during its April 2000 meeting.

The proposed project supports SDSyPA's role as promoter of policy dialogue with the provinces about protection of marine biodiversity and fosters a closer partnership with PNA and SHN for prevention of maritime pollution.

4.1 Executing agencies:

The executing agency of the project is SDSyPA for overall coordination and administration of project activities with the assistance of UNDP under a Cost-Sharing Agreement Under respective implementation agreements, PNA and SHN will assist in technical aspects of specific components are described in Section 4 (Institutional and Implementation Arrangements). Within SDSyPA, which is a secretariat within the Ministry of Social Development and Environment, the Undersecretariat of Environmental Policy will be responsible for this Project. Within PNA, the Environment Protection Directorate reporting directly to PNA's head will be responsible for the above activities. Within SHN, the Department of Oceanography will be responsible for coordinating project activities with other departments of the service and with the participating external stakeholders.

4.2 Project management:

SDSyPA already administers two Bank projects (AR-4095 – Native Forests and Protected Areas, and AR-4281 Pollution Management) and will draw upon this experience for the proposed Project. Since the change in administration (December 1999), institutional changes have occurred resulting in some loss of institutional memory. The new permanent staff at SDSyPA related to the Project will be provided extensive training in Bank procedures and reporting guidelines. In addition, the Secretariat has created an Administration Unit that will support the project's PEU in contract processing and financial management. All substantive/technical decisions regarding these activities would reside with the PEU, SHN, and PNA for their respective project activities.

4.3 Procurement issues:

SDSyPA's Administration Unit is staffed with an experienced Procurement Specialist, who has prior experience with Bank projects, who would support the planning and execution of major procurement actions under the Project. The PEU will be supported by an additional procurement specialist who will be directly responsible for producing the Project's procurement documents and overseeing contract processing. A Procurement Capacity Assessment was conducted by the Bank's Procurement Specialist (PS) and the overall risk assessment was average. The PS's recommendations for improving the PEU's capacity, which are currently being implemented, include detailed inclusion of procurement aspects in the Project Operations Manual, adoption of an information system that facilitates procurement post-review, and training of new staff in Bank procedures. The PS also reviewed a preliminary procurement plan for the first year and found it acceptable. A satisfactory revised Procurement Plan for the first year of execution will be a condition of effectiveness.

4.4 Financial management issues:

The PEU will receive the assistance of experienced accountants of SDSyPA's Administration Unit to maintain adequate financial management systems—including accounting, financial reporting, and auditing systems—to ensure that they can provide the Bank accurate and timely information regarding project resources and expenditures, in accordance with: (i) the Financial Accounting, Reporting and Auditing Handbook (Washington, D.C.: World Bank, 1995), (ii) the Guidelines and Terms of Reference for Audits of Projects with Financing by the World Bank in Latin America (World Bank, May 1999), and (iii) the Bank's Operational Policy (OP) and Best Practice (BP) 10.02, dated July 1996. A financial management assessment of the Project Implementation Unit has been carried out by the Bank's FMS, who confirmed that the project

does satisfy the Bank's minimum financial management requirements. The project was given a 4-B rating, as its financial reporting system is not yet able to provide, with reasonable assurance, accurate and timely information on the status of the project (PMR) as required by the Bank for PMR-Based Disbursements. The Financial Management Specialist has developed and agreed with the PEU a time-bound action plan for strengthening the financial management system.

5. Environmental: Environmental Category: C

The project is a category C for environmental assessment purposes consistent with the provisions of OP 4.01, because it does not create direct or induce indirect impacts on the environment. The information management equipment and training activities for oil spill management, reduction of navigational risks, and improved knowledge base on marine biodiversity will not have an adverse environmental impact. No civil works or remediation activities are financed under the Project. This classification was endorsed by LCSES-QAT (Memorandum dated February 8, 2001).

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

The project is expected to have a beneficial environmental impact and no negative environmental impacts are foreseen.

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

Not applicable.

5.3 For Category A and B projects, timeline and status of EA:
Date of receipt of final draft: Not Applicable

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

Not applicable.

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

Not applicable. The project does not create impacts on the environment; on the contrary, it supports an increased capacity to prevent pollution and better understand the Patagonia marine ecosystem.

6. Social:

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

There are no social issues associated with the project objectives.

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

During project preparation, consultative workshops were held in the provinces of Chubut and Tierra del Fuego and participants from the other provinces of Patagonia also participated. These workshops, which

were financed by the project's Preparation Grant, brought together over 62 participants representing government, academic institutions, research agencies, and NGOs, such as PNA, SHN, CENPAT, INIDEP, UMPA, and FPN. The workshops helped to design a consultative mechanism for the Project's Marine Biodiversity Component that will be used to support regional knowledge sharing and collaboration among institutions through a matching grants program. These workshops also helped to build consensus about the evaluation criteria that would be used to rank proposals under the Matching Grant Program (component 2.3). In addition, SDSyPA will report progress in project implementation to a Consultative Group composed of provincial representatives of Patagonia during Project workshops and regular COFEMA meetings.

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

NGOs are eligible participants in the matching grant program. Furthermore, consultation workshops will be held during project implementation. Civil society will be periodically informed about project outputs through a Project newsletter.

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

Not applicable.

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

Not applicable.

7. Safeguard Policies

7.1 Do any of the following safeguard policies apply to the project?

Policy	Applicability
Environmental Assessment (OD 4.01)	Yes
Natural Habitats (OP/BP/GP 4.04)	No
Forestry (OP 4.36)	No
Pest Management (OP 4.09)	No
Cultural Property (OPN 11.03)	No
Indigenous Peoples (OD 4.20)	No
Involuntary Resettlement (OP 4.30)	No
Safety of Dams (OP 4.37)	No
Projects on International Waterways (OP 7.50)	No
Projects in Disputed Areas (OP 7.60)	Yes

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

For Environmental Assessment purposes, the Project has been classified as "C" (section 5 above).

Originally, the proposed project was to cover fisheries management issues which raised concerns about potential project activities in the area of the Malvinas/Falklands Islands, as well as the appropriate sustainable sharing of fishing stocks between the U.K. and Argentina, an area contested by the two countries. As preparation progressed, it was decided that the fisheries component would become a separate Sustainable Fisheries Management Project (LIL). Technical consultations were held with the U.K. and Argentina both of which requested certain adjustments to the scope of that project and the LIL was approved on September 18, 2000. As for the proposed GEF project, both governments have been consulted as well and their respective comments on this Project Appraisal Document (PAD) have been incorporated.

F. Sustainability and Risks

1. Sustainability:

1. Sustainability:

The sustainability of the proposed Project is expected to be ensured as the government and other stakeholders have demonstrated strong commitment to its goals, and as the project incorporates mechanisms for financing recurrent costs and for reducing the implementation risks as described below.

(a) Government and Stakeholder Commitment. 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 activities under Bank and IDB loans described in section 2 (Baseline Situation). Furthermore, the new administration supports the proposed Project and is expected to allocate additional counterpart funds to support 55% of total project costs. The other stakeholders that 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 (Component 2.3) is intended to pilot a mechanism for promoting stakeholder commitment by requiring co-financing from subproject proponents.

(b) Financial Sustainability. For activities involving recurrent costs beyond the Project's implementation period (e.g., those involving equipment maintenance and updating of information), the project includes two types of sources for sustainable financing: user fees and government budget support. User fees will be considered for activities generating outputs with commercial or quasi-commercial value (e.g., sensitivity maps, electronic navigation charts). The maintenance and operation of equipment purchased under the project will be sustained by government budgets; this will included as a legal covenant in the implementation agreements with SHN and PNA.

2. Risks

The risks associated with the proposed Project are summarized in the table below. Three types of risk require special attention:

(a) *Poor/Inefficient Project Administration: For* all projects with international financing, SDSyPA depends on the UFI within the MSDEP for formal clearances of procurement and for certain aspects of financial management. The coordination between them has been problematic in the past resulting in delays in contract approval and signing. The proposed approach for mitigating this risk is to ensure that the division of responsibilities are clearly laid out in operational procedures between UFI, the PEU, and the Administration Unit within SDSyPA. Training on Bank procurement guidelines and financial management will be provided to the PEU before Project Launch.

(b) *Inadequate Institutional Absorption of Project Outputs:* Projects with a high technological and informational content may be insufficiently absorbed into the normal functioning of the institutions they are intended to strengthen. For this project, the specialized training and the technological improvements proposed for PNA's oil spill contingency planning and response functions, as well as navigational aids for the maritime shipping industry operating in Patagonia could potentially present such case. The risk mitigation measures include a highly participatory project design where beneficiaries have provided input about the scope and level of sophistication desired for each tool. The detailed training programs and specifications of equipment and systems supported under the Project will continue to take the beneficiaries' needs as a central consideration.

(c) *Counterpart Funds may not Materialize:* The counterpart funds for this Project to be provided by SDSyPA, PNA and SHN would be included in each calendar year budget during the middle of the previous year. Budget cuts in central government institutions have been common, as Argentina remains committed to fiscal austerity. Therefore, even when budget allocations are made at the beginning of the year, economic authorities may later constrain the counterpart funds when fiscal conditions warrant such extreme measures. This causes delays in project implementation until the counterpart funds are made available. To mitigate this risk, two measures will be taken: (i) the implementation agreements with PNA and SHN will require a pari-passu disbursement schedule with the counterpart funds so that project funds are not drawn down when counterpart funds are cut; and, (ii) an up-front deposit of each year's counterpart will be required as part of the Agreement with UNDP. Since deposits are made to a third party, subsequent budget cuts during the year would not affect Project implementation.

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

Risk	Risk Rating	Risk Minimization Measure
From Outputs to Objective		
(i) Counterpart funds may not materialize.	H	- agreements with PNA and SHN will require pari-passu project disbursements with counterpart funds; and, - require an up-front deposit of each year's counterpart to UNDP.
(ii) Project administration may not be efficient.	M	- clarify division of functions between UFI, PEU and Administration Unit as agreed in other ongoing projects (Pollution Management Project, Native Forests Project); and, - proper staffing and training of PEU's personnel on procurement and financial management.
From Components to Outputs		
(i) PNA may be unable to absorb or internalize project outputs	M	- PNA's input was incorporated in scope and level of sophistication for each tool. Training programs and specifications of equipment will consider beneficiaries' needs as a central consideration.
(ii) SHN loses leader and is unable to continue steering technical work and knowledge sharing	M	- Top official at SHN is committed to the Project and, in addition to leader, other officers at SHN will be part of the implementing team.
(iii) SDSyPA is unable or unwilling to collaborate with provincial and fisheries institutions/NGOs	M	- Matching grant program includes a transparent and open process of proposal evaluation and approval using independent experts and following a disclosed operational manual. - Current dialogue within COFEMA supports this Project.
Overall Risk Rating	**M**	

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

3. Possible Controversial Aspects:

See item 7.2 regarding Safeguards (Projects in Disputed Areas).

G. Main Conditions

1. Effectiveness Conditions

(a) Establishment of the PEU with qualifications and experience satisfactory to the Bank;
(b) Signature of Implementation Agreements with PNA and SHN;
(c) Completion and Bank approval of a Project Operational Manual including a self-standing chapter on the Matching Grant program (component 2.3) as instructions to applicants.
(d) Updated Procurement Plan for the first year of project execution.
(e) Signature of a Cost-Sharing Agreement between UNDP and SDSyPA satisfactory to the Bank.

2. Other

The PEU shall:

(a) Produce quarterly Project Management Reports using formats agreed at negotiations;
(b) Arrange for annual audits to be undertaken by AGN;
(c) Undertake a mid-term and final evaluation of the project.

H. Readiness for Implementation

A draft Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality. Further improvements will be introduced while the Grant is officially approved by the GOA.

I. Compliance with Bank Policies

This project complies with all applicable Bank policies.

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Annex 1: Project Design Summary

COASTAL CONTAMINATION PREVENTION AND MARINE MANAGEMENT

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Sector-related CAS Goal: Promoting sustainable management of natural resources and protection of biodiversity. **GEF Operational Program:** Supporting long-term protection of international waters and the conservation and sustainable use of biodiversity.	**Sector Indicators:** Improved institutional capacity and collaboration between central and provincial governments and other stakeholders for pollution prevention and adoption of more sustainable use of marine resources. Sustainable Management of Fisheries Resources	**Sector/ country reports:** Reports on technical cooperation and roles agreed through: - Collaboration agreements; - Enhanced policy dialogue at Federal Environment Commission. For fisheries: INIDEP reports.	**(from Goal to Bank Mission)** Continued commitment from Argentina to support environmental management and cooperation with sub-national and private/NGO stakeholders. Policies supported under Sustainable Fisheries Management Project are implemented.
Project Development Objective: Reduce pollution of the Patagonia marine environment and improve sustainable management of marine biodiversity by: (i) improving oil spill prevention and response capacity and preventing ship-waste pollution; (ii) improve the knowledge base of Patagonia's marine environment and its biodiversity; and, (iii) build capacity and promote regional knowledge sharing about sustainable management of marine resources.	**Outcome / Impact Indicators:** Reduced ship-based pollution (oil/waste spilled or discharged per ton transported and % of ballast water treated in ports) by reducing navigational risks; improving preparedness and response to oil spills; and better monitoring of pollution from ships. Sensitive areas prioritized for protection based on dissemination of marine biology and oceanographic data of global and local relevance. Improved capacity in national and provincial governments to assess the effects of economic activity on the marine environment and ability to incorporate lessons from pilot projects in marine protection policies.	**Project reports:** PNA reports of pollution incidents and routine ship inspections. Comparison of preparedness and response to an oil spill before and after project (functionality of: contingency planning, equipment, courses developed, personnel trained and public and private integration). Maps, data series, and sensitivity atlas. Evaluation of competitive projects.	**(from Objective to Goal)** Proper collaboration between SDSyPA, PNA, SHN, provincial authorities, research bodies, tanker owners, fishermen, NGOs. Sustainable Fisheries, Maritime Front, and Port Modernization Projects implemented on schedule.

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Output from each component:	**Output Indicators:**	**Project reports:**	**(from Outputs to Objective)**
1. Maritime Pollution Prevention	All provinces capable of using integrated zonal contingency plans through drills Reduced drill response time in PNA by 30%. Volumes of ship waste (oil, garbage and chemical residues) measured and collection increased by 30%.	Annual progress reports to the Bank and supervision missions. Contingency response drills.	
1.1. Improve preparedness and response to oil spills and prevent ship-waste pollution		Quarterly progress reports prepared by PEU and PNA (SHN assistance for oil spill model).	PNA remains committed to Project Objectives and provides counterpart funding.
a) Improved organization and analysis of contingency plans using modern tools for data base organization.	• Reduction of the processing time by PNA of private sector contingency plans.		
b) Extensive training for effective oil spills response.	• Number of national personnel trained abroad in oil spill emergency response.		Port Modernization Project Implemented on schedule.
c) Oil spill trajectory modeling	• Demonstrated accuracy of oil spill trajectory models in field tests.		PNA and SHN cooperate in their respective areas.
d) Improved enforcement of MARPOL regulations on shi waste discharges.	• Percentage of ships calling on Patagonian ports inspected by PNA to control waste discharges. • Percentage of ships convicted for violations of MARPOL of ships that have been prosecuted. • Design of waste reception facilities for ports in Patagonia done to international standards.	Evaluation of proposed facilities done by international experts.	Political will to enforce the regulations.
1.2. Reduce navigational risks by introducing a marine electronic infrastructure program.		Quarterly reports prepared by SHN and PNA.	SHN adopts technological improvements.
a) Enhanced vessel tracking system.	• Number of ships caught in violation of MARPOL. • Number of tar balls in coastal surveys from baseline levels. • Number of spills detected by satellite and air patrols.		MONPESAT or replacement system operating according to design.

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
b) Hydrographic mapping of critical zones and improvement of the electronic charts system.	• Three access channels to ports and maritime passages mapped hydrographically. • Presence of accidentally spilled chemicals mostly eliminated in water quality surveys. • Quantity and quality of navigation charts improved according to international standards.	Survey conducted among tanker captains after mid term review and project completion.	
c) Pilot ocean buoys as sources of real time data on navigation conditions (funded under Component 2).	• Performance of buoys and their usage by oil tankers.	Survey conducted among tanker captains after mid term review and project completion.	
2. Marine Biodiversity Protection is integrated in government policies		Quarterly reports prepared by PEU and SHN.	
2.1. Improve the knowledge base on the Patagonia shelf and complete identification of ecologically sensitive areas	• Marine biological data distributed to national and provincial decision makers to improve sector policies. • Water quality indicators (tar balls, garbage, sewage, heavy metals and fish offal) recorded and trends established over project implementation. • Hake catches begin to recover in five years with a trend towards pre 1990 catch levels. • Reduction in the observed number of seabirds killed by oil during project implementation.	User surveys, including tanker captains.	SHN continues to lead technical work and promote knowledge sharing. Primary productivity of ecosystems in the LME maintained. Regulations under Sustainable Fisheries Project effectively implemented.
a.i) Patagonian Tidal Wave Model for Simulating Oil Spill Trajectory. a ii)Pilot ocean and coastal monitoring by two oceanographic buoys. a.iii) Extensive ocean monitoring by ship using conventional methodologies.	• Tidal wave model and selected areas data loaded and ready for use by SHN and PNA. • End-users with better access to useful and relevant data. • Capacity to conduct oceanographic measurements in ten areas in Patagonia established		Counterpart funding for oceanographic ships campaigns in a timely manner.

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
bi) Transboundary Analysis (TBA) of Patagonian Ecosystems	• Analysis permitting actors to make informed decisions. • Agreement with neighbors exists on the key actions to be taken during the next 15 years.	Separate TBA Report.	Agreement is reached with the other GEF projects on formats and division of labor of TBA.
bii) Develop maritime sensitivity atlas to improve knowledge base on the Patagonia shelf and complete identification of ecologically sensitive areas.	• Establishment of a system for continuous updating of the atlas.	Atlas in print and electronic versions.	
c) Inter calibration of key laboratories of the marine institutions.	• Percentage of institutions reaching international standards of data requirements. • Sustainability of the program at the end of the project implementation phase.	Interviews with laboratory officials.	Laboratories continue participating in the program.
2.2 Develop marine protection tools based on impact evaluations		Progress reports by PEU.	SDSyPA effectively collaborates with provincial governments and fisheries institutions.
a) Priority setting of areas for marine biodiversity and preparation of legal and technical aspects for piloting marine reserves.	• All key ecosystems included in the prioritized areas for marine reserves. • Lessons from pilot projects to protect marine biodiversity from Matching Grant Program • Analysis of legal and management aspects for establishing reserves in federal and provincial waters.	Evaluation report and result of consultations.	
b) Evaluate the incidental catch of birds and mammals and development of an action program based on the severity of impacts.	• Extent and severity of incidental catches of key populations assessed and demonstration of techniques to reduce impacts.	Evaluation report and workshop results.	Fisheries Under Secretariat maintains a Fishing Observer Program and Fishing Companies cooperate with the incidental catch studies.
2.3 Promote capacity building and regional knowledge sharing on marine biodiversity protection	• Five pilot conservation and pollution prevention tools of an innovative nature developed. • Cooperative research project implemented and results disseminated.	Evaluation of proposed sub-projects for Bank approval. Subproject progress reports and ex-post by PEU.	Counterpart funding from beneficiaries available in a timely manner.

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
3. Capacity Building, Monitoring and Evaluation and Project Management	• Training for provincial authorities. • Environmental Information System for the Patagonia Shelf Area with nodes in each Patagonian province. • Monitoring and Evaluation program measures health of LME. • Sustainable policies adopted by Provincial environmental authorities.	Annual reports to the Bank and supervision missions.	SDSyPA maintains its key personnel to ensure an efficient administrative system. Steering Committee gets timely information from all participating agencies.
Project Components / Sub-components:	**Inputs: (budget for each component)**		
1. Maritime Pollution Prevention *1.1. Improved preparedness and response to oil spills and prevention of ship-based pollution* *1.2. Reduced navigational risks by introducing a marine electronic infrastructure program.*	1.1 $ 1.61 million ($ 1.20 million GEF) 1.2 $ 1.91 million ($ 0.94 million GEF)		
2. Marine Biodiversity Protection. *2.1. Improved knowledge base and completed identification of ecologically sensitive areas* *2.2 Developed marine protection tools based on impact evaluations* *2.3 Promoted capacity building and regional knowledge sharing on marine biodiversity protection*	2.1. $ 3.31 million ($ 1.43 million GEF) 2.2. $ 0.49 million ($ 0.31 million GEF) 2.3. $ 8.66 million ($ 2.55 million GEF)		
3. Capacity Building, Monitoring and Evaluation and Project Management	3. $ 2.78 million ($ 1.92 million GEF)		

Annex 2: Project Description

COASTAL CONTAMINATION PREVENTION AND MARINE MANAGEMENT

The Western South Atlantic comprises a large expanse of international resources sometimes referred to as the Patagonia Shelf Large Marine Ecosystem (LME), a biologically productive area supporting a wide variety of marine life. This area is considered a world-class haven for marine biodiversity because its unique characteristics favor production of large amounts of plankton from nutrient-rich waters that cover a wide and relatively shallow continental shelf. A recent priority setting analysis[2] has further specified distinct ecoregions within this LME according to patterns of ocean circulation, coastal morphology, and distribution of major faunal populations. The North-Patagonian Gulf Eco-region and the Patagonian Shelf Eco-region stretch along the coastal waters of the four Argentinean provinces of Chubut, Rio Negro, Santa Cruz, and Tierra del Fuego (see Figure 1). This area covers approximately 600,000 kms^2 of ocean and hosts a large number of fish species (e.g., anchovy, southern hake, Fueguian sprat, hoki, blue whiting, and Patagonian Toothfish); whales, including baleen whales and the endangered Southern Right Whale; sea lions and elephant seal; dolphins, penguins, albatross, petrels, and many more seabird species and invertebrates. These ecoregions, for simplicity referred to here as the *Patagonia marine ecosystem*, are threatened by a number of anthropogenic activities, including pollution from ships, land based sources and off shore activities, over-fishing and non-selective fishing methods.

The proposed GEF project complements Argentina's efforts to reduce pollution of the Patagonian marine environment and improve sustainable management of marine resources by supporting incremental activities aimed at protecting marine biodiversity and safeguarding Patagonia's marine ecosystem. Achievement of the objectives would be measured by: (a) faster response to oil spills and reduced impacts on marine environment; (b) improved knowledge base about the Patagonia marine ecosystem and its biodiversity; and (c) improved institutional capacity for pollution prevention and adoption of more sustainable use of marine resources.

The project supports Argentina's implementation of MARPOL and other marine pollution oriented conventions and national and provincial policies to improve the management of the marine and coastal environment. The GEF funding provided for the proposed project is designed to achieve global environmental benefits by removing barriers that prevent implementation of international waters protection such as the support for high priority improvements in navigational safety in the region and an effective "prevention" oriented program. Furthermore, the GEF financing is used to catalyze initial investments by the Government and stakeholders; all recurrent costs are covered by user fees and Government budget support. The project would include three components:

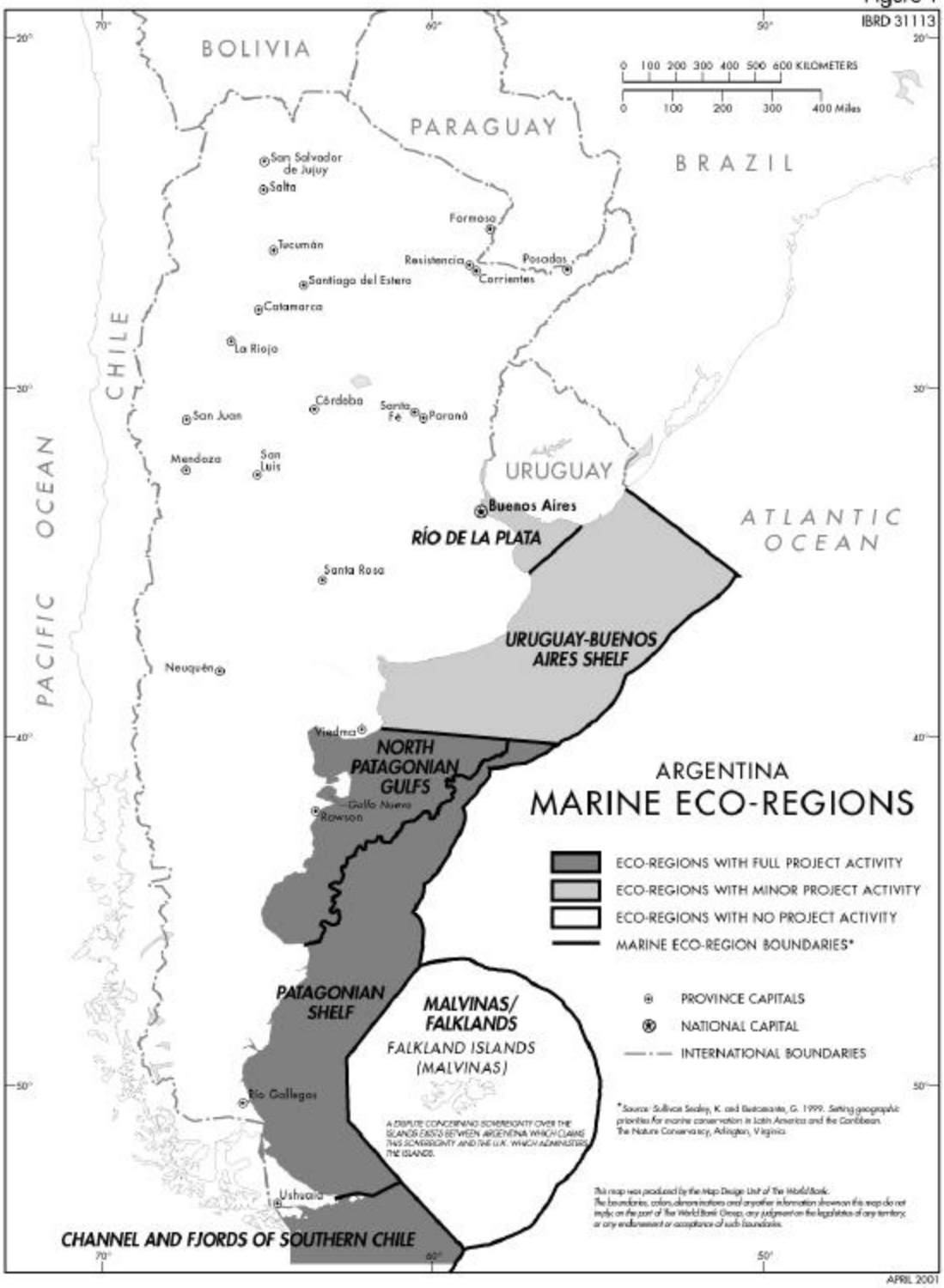
1. Maritime Pollution Prevention;
2. Marine Biodiversity Protection; and
3. Capacity Building, Monitoring and Evaluation, and Project Management

Project Component 1 - Maritime Pollution Prevention - (US$3.52 million with US$ 2.14 million of GEF contribution)

This component aims at mitigating some of the threats and impacts affecting the Patagonian marine environment originating from ship based pollution and oil spills. To achieve this objective, two sub-components address the need to strengthen current institutional capacity by:

[2] Sullivan Sealey, K. and Bustamante, G. 1999. *Setting geographic priorities for marine conservation in Latin America and the Caribbean.* The Nature Conservancy. (Under the Biodiversity Support Program funded by USAID).

Figure 1


IBRD 31113
BOLIVIA
PARAGUAY
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CHILE
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San Salvador de Jujuy
Salta
Formosa
Tucumán
Resistencia
Posadas
Corrientes
Santiago del Estero
Catamarca
La Rioja
Córdoba
Santa Fe
Paraná
San Juan
Mendoza
San Luis
Buenos Aires
RÍO DE LA PLATA
Santa Rosa
URUGUAY-BUENOS AIRES SHELF
Neuquén
Viedma
NORTH PATAGONIAN GULFS
Golfo Nuevo
Rawson
PATAGONIAN SHELF
MALVINAS/ FALKLANDS
FALKLAND ISLANDS (MALVINAS)
A DISPUTE CONCERNING SOVEREIGNTY OVER THE ISLANDS EXISTS BETWEEN ARGENTINA WHICH CLAIMS THIS SOVEREIGNTY AND THE U.K. WHICH ADMINISTERS THE ISLANDS.
Río Gallegos
Ushuaia
CHANNEL AND FJORDS OF SOUTHERN CHILE
ARGENTINA
MARINE ECO-REGIONS
ECO-REGIONS WITH FULL PROJECT ACTIVITY
ECO-REGIONS WITH MINOR PROJECT ACTIVITY
ECO-REGIONS WITH NO PROJECT ACTIVITY
MARINE ECO-REGION BOUNDARIES*
PROVINCE CAPITALS
NATIONAL CAPITAL
INTERNATIONAL BOUNDARIES
* Source: Sullivan Sealey, K. and Bustamante, G. 1999. Setting geographic priorities for marine conservation in Latin America and the Caribbean. The Nature Conservancy, Arlington, Virginia.
This map was produced by the Map Design Unit of The World Bank. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.
APRIL 2001

- Improving preparedness and response to oil spills and preventing ship-based pollution.
- Reducing navigational risks by introducing a marine electronic infrastructure program.

1.1. Improve preparedness and response to oil spills. This sub-component aims at strengthening PNA's (*Prefectura Naval Argentina*) capacity to prevent maritime pollution generated by ships and activities related to offshore oil exploitation. Through IDB baseline financing, the Patagonia ports are receiving financial assistance to strengthen PNA's equipment needs to handle contingency situations. The GEF project would complement baseline investments by focusing on remaining capacity gaps. Four activities are included under this sub-component.

a) *Improved organization and analysis of contingency plans using modern tools for data base organization.* The PNA is in charge of administering the "National System of Pollution Prevention and Control for Hydrocarbons, Other Toxic Substances, and Potentially Hazardous Substances." All petroleum, shipping and port industries have currently presented their respective contingency plans (approximately 1,200). Each of these plans will have to be analyzed and approved by the Environmental Protection Directorate *(Dirección de Protección de Medio Ambiente*, DPMA). To ensure adequate review and implementation, this activity would support: (i) hiring of consultants with expertise in contingency planning to accelerate the analysis of the private sector contingency and emergency response; (ii) training a group of management staff and their alternates on the specific techniques of contingency planning; and, (iii) developing a geographically referenced database that would quickly identify the availability of equipment and human resources at the national, zonal and local levels and in the public and private sector, for the prevention of hydrocarbon spills. This information would be incorporated to the software to provide a graphic illustration of the occurrence of oil spills in the sea.

b) *Extensive training for effective oil spills response*. This component includes training at PNA's headquarters and at the regional level at PNA's Patagonian Training Center. Specifically, the project would: (i) train two groups of six officers and alternates at CEDRES in France and OSRL in Great Britain, respectively; (ii) create a training program in Puerto Madryn on the Patagonia Coast to provide instruction to PNA, private sector and public sector personnel; (iii) furnish the training center with proper equipment (e.g. barriers, surface sewers, and related materials); and, (iv) maintain an evaluation and registration system of training participants. The purchase of the training equipment will be phased to permit the implementation of the data base in the previous activity to ensure that the purchases made for this activity are the optimal use of the resources and complement existing equipment. The project would finance an international consultancy after 2.5 years of project implementation to assess the evolution of the response capacity of oil spills at the national level as a result of project activities and support from baseline sources. Based on this assessment, the necessary complementary equipment for the Patagonian Training Center would be determined and acquired. The activity complements the investments undertaken under the IDB funded port modernization project where contingency equipment is purchased for all of the bigger ports in Argentina. The IDB project is mainly focused on port contingencies and operational accidents, and will only provide a limited ability to address contingency situations outside of ports.

c) *Oil spill trajectory modeling.* This activity consists of two sub-activities that require close collaboration between PNA and SHN. The first sub-activity is the implementation of a Patagonia Tidal Wave model that would help simulate the behavior of an oil spill in the ocean. The SHN will oversee this subactivity and its description is included in component 2.1 (a). With the platform provided by the Tidal Wave model regarding behavior of currents and winds, the second sub-activity consists of providing PNA with a computer model for simulating the transport of oil spills in specific zones and staff training staff on the use of the software.

d) *Improved enforcement of MARPOL regulations on waste discharges.* This activity aims at improving control of all the ships that enter national ports, through inspection of their books, of the installed systems in the ship and of the wastes on board before departure. PNA staff already conducts studies on the subject and the proposed activity is to deepen and update their knowledge through specialized training courses. A second objective is to generate a record of the movement of cargo ships in Argentine ports and their waste management. This statistical information would enable the *Subsecretaría de Transporte por Agua y Puertos of the Ministerio de Infraestructura y Vivienda* to design the waste reception facilities that are required for the Patagonian ports, adapting them to the waste volumes managed by each port. The project will support the following activities: (i) develop a training system, specific for senior staff of the PNA to control waste discharges of ships; (ii) offer three theory and practical training courses to senior staff of the PNA that carries out control of waste discharges in ports of the Patagonia, in compliance with the MARPOL agreement; (iii) design data recording tabulations for all the ships that call in Argentine ports during a one-year period; (iv) register the inspections carried out in ships to control waste discharges; (v) produce a database with the tabulations designed and with the inspections carried out; (vi) design waste reception systems for each port in the Patagonia, based on gathered statistics.

1.2. Reduce navigational risks by introducing a marine electronic infrastructure program. This sub-component aims at reducing the risks involved in maritime navigation through the use of modern technologies. At this time there has been an introduction of some electronic technologies to improve navigational safety like the DGPS system that is now widely used, but much remains to be done. The new technologies allow for a greater understanding of the hydrographic conditions surrounding the navigated zones and the positioning of oil and cargo ships. Two activities are included under this sub-component.

a) *Enhancing the Vessel Tracking System.* At present, the only effective knowledge on oil tankers sailing along the Patagonia coast comes from the movement message that each ship transmits twice a day to the stations of the *Servicio Móvil Marítimo* of the PNA. This information system is insufficient for an effective control to prevent illegal discharges. IMO's Maritime Safety Committee, has recently established new rules on voyage data recorders (VDR) and automatic identification systems (AIS), making it mandatory for all flag states to introduce new systems with some minimum requirements over the next few years as specified by the International Convention for the Safety of Life at Sea (SOLAS). The information to be provided include the following: ship's identity, type, position, course, speed, navigational status and other safety-related information. In order to address the provisions of SOLAS, Argentina needs to decide on a VDR and AIS system that satisfies the needs of the convention, while meeting the management needs of the government. The *Secretaría de Agricultura, Ganadería, Pesca y Alimentación* (SAGPyA), jointly with the Argentine Army and the PNA, has implemented a system named MONPESAT. This is a tracking system of the fishing fleet through a satellite transmitter that emits the position of the ship at predetermined intervals. The cost of extending the MONPESAT system to the oceanic oil fleet could easily be absorbed by the ship owners because of the secondary benefits of the system. However, it is important to note that the MONPESAT system has not been free of operational problems. With the new provisions from IMO Argentina will have to develop the rules and a timeframe for implementation over the next couple of years. This activity supports: (i) conducting further consultation with private industry on their interest in technologies recommended by IMO and other alternatives to MONPESAT (e.g., ARGOS); (ii) evaluating the advantages and costs of adopting and modifying the MONPESAT or its alternatives vs. creating a new, simpler system dedicated to oil ships and cargo vessels following the IMO recommendations; (iii) if necessary, designing the new system; (iv) provide a legal consultant to help draft the regulations for AIS requirements in Argentina; and, (v) installing and rendering the system operative.

b) *Hydrographic Mapping of Critical Zones and Improving the Electronic Charts System.* This activity would finance a comparative study of commercially available multi-beam scanners to detect rocky peaks and other important bottom features. The system that best suits the special conditions of the operator

(SHN) and the critical zones[3] to be scanned would then be acquired and the equipment placed into operation. The data gathered would then be incorporated into Argentina's naval cartography. Once the new hydrographic mapping is carried out, the project would support the shift to using digital methods to represent naval charts in replacement of or as complement to traditional paper charts. The most advanced electronic cartography systems include the possibility of automatically representing the ship in the chart through navigation data and even of superposing radar data to the electronic chart.

Project Component 2 - Marine Biodiversity Protection - (US$ 12.46 million with a GEF contribution of US$ 4.29 million)

This component aims at improving the knowledge base about marine resources to inform decision-makers about marine protection and building management capacity at the regional level. The component addresses the need to better understand and document the specific effects and extent of impacts of anthropogenic activities on the marine environment. In addition, while a number of research institutions have had a central role in developing the available knowledge base on the Patagonia marine resources, three problems have reduced their contribution to marine protection decisions: (i) the information is not sufficient and properly integrated; (ii) the institutions tend to minimize knowledge sharing because of competition for research funding and prestige; and, (iii) these institutions have limited dialogue with policy makers and lack applied marine research programs. Three sub-components are proposed to address these problems by:

- Improving the knowledge base on the Patagonia marine ecosystem and completing identification of ecologically sensitive areas.
- Developing marine protection tools based on impact evaluations.
- Promoting capacity building and regional knowledge sharing on marine biodiversity protection.

2. 1. Improve the knowledge base on the Patagonia marine ecosystem and complete identification of ecologically sensitive areas. The overall goal of this sub-component is to generate a more systematic and internationally compatible set of oceanographic and biological data. This would enhance Argentina's knowledge about its marine resources and offer improved information for global conservation. The following three activities are proposed under this sub-component.

a) *Targeted programs for understanding the dynamics of ocean circulation, production and environmental degradation of key areas of the Patagonia ecosystem.* This activity would include:

(i) Patagonian Tidal Wave Model for Simulating Oil Spill Trajectory. To aid PNA's assessment of how an oil spill behaves in the ocean, SHN will implement a Patagonia Tidal Wave Model and associated data acquisition. The model would simulate the propagation of a tide wave, the general circulation produced by currents in the continental platform, and the effects of the wind. In addition, this model would provide the outline conditions for local models, in the sites of interest, such as oil loading platforms, oil production and perforation platforms and the traditional courses of oil tankers. Local models would be calibrated with in-situ measurements of currents, tides and winds. The oil spill trajectory modeling would not only predict the path of a spill in real time, but also carry out different types of simulations to establish a priori the possible path of the slick. Specifically, this activity overseen by SHN would support: (i) acquiring a computer program to model the hydrodynamic systems (currents, winds and bathymetry); (ii) determining precisely the local zones of interest to incorporate detailed information on tide currents; (iii) contracting measurements of

[3] The transit areas of highest navigational risk in Patagonia are the near-coast access points to ports and channels in: Strait of Le Maire, Beagle Channel, between Punta Tombo and Cabo Aristizabal, between Cabo Blanco and Pingüino Island, and the access to Puerto Deseado.

currents and tides during a minimum period of 30 days in each of the sites that require a detailed model; (iv) incorporating the information obtained from the hydrodynamic models to the database of the program for spills monitoring; (v) in collaboration with PNA, the implementation of the spill monitoring program and carrying out simulations in each of the detailed zones; and, (vi) identifying the zones of possible impact for the detailed zones, based on the stochastic simulations.

(ii) Pilot Ocean Monitoring by Oceanographic Buoys. This activity would support: (i) the selection of an area in the Patagonia waters where the monitoring pilot program is to be conducted (currently proposed for continental slope area east of Peninsula Valdez for the ocean buoy and Punta Tombo for the coastal buoy during the first year); (ii) the development of the specifications for the buoys including quantity and quality of sensors, internal processing capacity, source of energy transmission mechanism and remote control options; (iii) the design of a system of data receptors, including its processing and dissemination via the Internet and to maritime traffic in real time; (iv) the investigation of mechanisms for data sharing with other countries; (v) the design of an inspection, control and maintenance system for the buoys; (vi) the acquisition and installation of the buoys; (vii) the operation and maintenance of the buoys; and (viii) the reception, processing, and dissemination of the transmitted data. The component would also develop a program of collaboration to run the operation when the GEF project supports ends and evaluate the need to develop a network of buoys in the South Atlantic waters.

(iii) Extensive Ocean Monitoring by ship using conventional methodologies. A significant capacity for oceanographic research by the SHN in collaboration with CONICET existed during the 1970s and 1980s. However, the data has not been properly calibrated and processed and there are indications that there is room for improvements in the land-based part of oceanographic operations. This activity would: (i) design and plan research programs, use of boats, instruments and personnel; (ii) systematically measure physical and chemical parameters in the sea with an oceanographic vessel, covering the continental platform from 39 degrees to 54 degrees South; (iii) process, publish and disseminate the data within one year of measurement, for the use of the community and international partners; and (iv) produce a geo-referenced database.

bi) *Transboundary Analysis of Patagonian Ecosystems.* This study is a standard product of GEF international waters projects and it aims at informing project stakeholders and neighboring countries about the health status of marine resources and the key sources of environmental stress. The transboundry analysis would help set priorities for local and regional action on marine resource management. A diagnostic study on the biodiveristy and environmental status of the Patagonia marine ecosystems has been conducted (*Biodiversity of the Patagonia Shelf– see reference in Annex 8*) as part of project preparation and provides a starting point for this analysis. The task would be implemented by a drafting team lead by the PEU with participating staff from the SDSyPA, and would be subject to consultations in workshops. The transboundry analysis should be completed within the first three years of project implementation.

bii) *Completion of the sensitivity atlas to improve knowledge base on the Patagonia marine ecosystem and complete identification of ecologically sensitive areas.* This activity would make available to the Argentine public an atlas in paper and electronic form with specific information on the marine and coastal resources and their interaction with man. In particular, the atlas would permit the oil industry and PNA to better assess risks and take precautions to prevent accidents from occurring. Areas of high importance for the protection against pollution and environmental degradation have been mapped in the past in Argentina. There is, however, no official document assisting operators of potentially polluting activities in prioritizing areas of special importance.

c) *Inter-calibration of key marine laboratories*. The inconsistent availability of analytical data has limited Argentina in managing its marine resources over the years. In particular, international sharing of data has been a problem, lowering the value of some of the research done. The following activities would be

supported: (i) organize workshops with international research institutions and facilitators to establish international standards of applicability to Argentina; (ii) reach an agreement on a lead laboratory for each aspect of data to be calibrated; (iii) conduct inter-calibration work by sending samples between the participating institutions and the reference laboratories; (iv) evaluate the need for further extension of this program, after two years of implementation; and (v) analyze methods of funding to maintain this program after the end of this proposed project.

2.2. Develop marine protection tools based on impact evaluations. Two main sets of activities are envisioned.

a) *Priority setting of areas for marine biodiversity and analysis of regulatory and technical aspects for piloting marine reserves.* The development of marine reserves in Argentina has just begun with the introduction of restricted areas for fishing during spawning seasons. The possibility of using these methodologies beyond the protection of commercially important fish stocks and to extend protection to other forms of marine life has not yet been attempted. A number of coastal parks, however, do exist. Also, under the UNPD\GEF Patagonia Coastal Zone Management Project, the development of coastal reserves is envisaged. This activity supports a consultancy to draft lists of areas of key importance for marine protection and workshops with key experts to prioritize marine reserves. The consultancy would also analyze regulatory and technical aspects of optimal methods for establishing marine reserves in federal and provincial waters and would present recommendations for future piloting of marine reserves.

b) *Evaluation of the incidental catch of birds and mammals and development of an action program based on the severity of impacts*. The rate and importance of incidental catches of marine mammals and birds in the Patagonia waters by the fishing industry is not well documented. This activity would support a consultancy to establish the dimensions of the issue and workshops with key experts to prioritize threats and potential protective actions.

2.3. Promote capacity building and regional knowledge sharing on marine biodiversity protection.

This sub-component would be implemented as a Matching Grant Program to support local pilot projects for innovation in resource use technologies and applied research. Pilot projects would receive a grant of less than US$100,000 each. The GEF grant would support up to 30% of total pilot project costs and the project proponent support the remaining 70% (including in-kind contributions). The limit of in-kind contribution will be 50% of the counterpart contribution. The priorities for this program have been developed through two workshops involving most of the key stakeholders. Representatives for the provinces proposed the following specific topics to be promoted through this sub-component:

- Deepen the understanding of impacts of pollution and fishing on marine biodiversity;
- Pilot activities that reduce or mitigate impacts of pollution on the Patagonia marine environment;
- Pilot activities that reduce the impacts of current fishing technologies on marine biodiversity; and
- Fund programs that improve the collaboration between the public/private sectors and civil society and that increase Argentina's national, provincial and municipal capacity to protect its marine resources.

The Program's criteria for qualification of projects would be based on an agreed point-based ranking system applied by a panel of national and international experts. In addition to technical soundness, key criteria include the following:

- Projects must respond to current explicit policy priorities related to protection of marine resources as expressed by the four Patagonian provinces;
- Projects that promote greater collaboration among institutions and propose wider dissemination strategies will be ranked higher; and

- Projects that incorporate capacity building of policy makers and provide policy-relevant lessons would be ranked higher.

Project Component 3 -Capacity Building, Monitoring and Evaluation, and Project Management (US$ 2.78 million with GEF contribution of US$ 1.92 million)

3.1. Local Capacity Building and Dissemination. This component would address the need to strengthen the marine resources management capacity of the local provincial and municipal governments and help disseminate the information on Patagonia's marine environment generated by the Project and that available from other sources. Two primary tasks will be supported: a training program for provincial authorities and an environmental information system.

a) Training Program. To be developed on a cost sharing basis with the entities to be trained, to strengthen specific skills. The themes to be covered in the training program are marine pollution prevention, living marine resources management, and marine conservation programs. Participation in contingency training programs and participation in national conferences in this field would also be supported.
b) Environmental Information System for the Patagonia Marine Ecosystems. Project resources would be used to support the aggregation of available data from public institutions, NGOs, and the private sector, for the processing of the information, and for the development of a network of ocean and coastal related information database for Patagonia (includes the information generated by the Project). Using modern search engines and tools, such as open directories for information management, the project would support the development of regional nodes for different specialties. The information would be disseminated through the Internet by using web pages and list servers.

3.2. Monitoring and Evaluation. The project will be guided by bi-annual reviews of results using progress reports prepared by the PEU (Project Execution Unit) according to the Project Operations Manual that will include outputs indicators developed on the basis of Annex 1. Based on the findings of these reviews, SDSyPA and the World Bank supervision missions will identify specific measures to: (i) address any areas of implementation weaknesses; and (ii) accommodate changes in priorities. These measures for improvement will be reflected in the proposal for the forthcoming year's project budget. A mid term review will be conducted to assess the progress of project implementation, and the need to modifications of the resources, depending on project implementation success. At the provincial level, a Consultative Group of the Patagonian COFEMA[4] will monitor project outputs and their contribution to policy-making on the basis of progress reports reviewed during Project workshops and during the regular COFEMA meetings.

3.3 Project Management. The project supports the creation of a Project Execution Unit (PEU) within SDSyPA staffed with a Project Coordinator, two technical specialists, a procurement specialist (to report to SDSyPA's Administration Unit), and a lawyer. The Project Operations Manual will describe in detail, inter alia,: (i) the TORs of each PEU staff; (ii) the applicable procedures for each procurement method as per Bank guidelines; (iii) a procurement decisions flow-chart incorporating Bank, UNDP, and government clearances; (iv) a time-bound procurement and implementation plan for the first year. Finally, this subtask will fund consultation and dissemination workshops, travel for the PEU staff, and public outreach activities (project brochure/newsletter).

[4] The environmental authorities in the central government are promoting a stronger role of the COFEMA for environmental policy coordination with the provincial jurisdictions. The Patagonian provinces are represented in the Patagonian COFEMA which intends to address a common agenda.

Annex 3: Estimated Project Costs

COASTAL CONTAMINATION PREVENTION AND MARINE MANAGEMENT

Project Cost By Component	Local	Foreign	Total
	----------US $million----------		
1. Maritime Pollution Prevention			
1.1 Improve preparedness and response to oil spills	0.68	0.85	1.53
1.2. Reduce navigational risks by introducing a marine electronic infrastructure program	1.21	0.64	1.85
2. Marine Biodiversity Protection			
2.1. Improve knowledge base and identify ecologically sensitive areas	2.75	0.44	3.19
2.2. Develop marine protection tools	0.45	0.03	0.48
2.3. Promote capacity building and knowledge sharing on marine biodiversity protection	8.47	0.02	8.49
3. Capacity Building, Monitoring and Evaluation, and Project Management	2.66	0.05	2.71
TOTAL BASELINE COSTS	16.22	2.03	18.25
Physical Contingencies	0.05	0.09	0.14
Price Contingencies	0.34	0.03	0.37
TOTAL PROJECT COSTS	16.61	2.15	18.76

Annex 4: Cost-Benefit Analysis Summary/Incremental Cost Analysis

Within the South Atlantic Large Marine Ecosystem (LME) comprising a large expanse of international resources lays the Patagonia Shelf LME, a biologically productive area supporting a wide variety of marine life. The Patagonia marine ecosystems, host a large number of marine species of global importance ranging from the endemic Magellan's penguin, the Southern Elephant Seal to the Southern Right Whale. The highly productive and diverse Patagonia marine ecosystems are 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 ecosystems are 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.

Baseline Scenario

The international waters of the Patagonia marine ecosystems are subject to a number of pressures from human activities as mentioned above. In the absence of GEF assistance for addressing the international waters objectives it is clear that Argentina would continue to support the development of the productive sectors of the economy, with limited consideration for the environment. In particular the industries that are characterized by a "frontier mentality" like the oil industry and the mining industry. Even an industry relying on renewable natural resources, like the fishing industry, has seen highly unsustainable practices. For the purpose of this project the baseline has been calculated at US$ 18 million.

The baseline consists of the following investments:

In the field of sustainable fisheries management the Secretariat for Agriculture, Livestock, Fisheries and Food, SAGPyA is implementing a Learning and Invocation Loan (LIL) of US$ 8.5 million, including a US$ 5 million IBRD loan. The projects primary focus is improving the management of the fishing sector and the operation of the monitoring, control and surveillance systems. The project has recently become effective and is intended to have a three year implementation period. Not all sustainability issues will be addressed during the life-cycle of this project, and there will remain a number of issues that will need further attention.

Regarding Land Based Sources of Marine Pollution the main public investment, through foreign collaboration, is the IDB financed Port Modernization Project. The environment component of this project will purchase equipment and improve management in some of the bigger ports in Argentina. The value of the environment investments, that are currently being made, is US$ 6.6 million. Within the baseline, there will be some limited capacity building together with the oil industry, particularly through joint training programs that currently occur annually.

To build the knowledge base of the marine ecosystems in Argentina and translate this knowledge into management there are a number of provincial programs under way. One activity is the Institution Development Fund Grant to a local NGO and a Bank supported program on public involvement in municipal environmental management. There is also some support for information management through a national network of environmental information. This program has been supported by the IDB-funded Environment Institution Strengthening Project. It has provided some web-based information systems at the SDSyPA.

Monitoring and evaluation of project management is largely a project specific activity, as a result there is no baseline available for this component.

Global Environmental Objective

The project aims to promote the conservation and sustainable management of marine and coastal resources of the international waters along the Argentine coastline through the prevention and mitigation of coastal pollution and the sustainable use of fisheries and marine resources. The project development objectives are to: (a) address the threats from water-based and land-based contamination in the Patagonia coastal area; (b) improve fisheries management to eliminate and prevent over harvesting in the project region; and (c) safeguard marine biodiversity from increased commercial traffic of hazardous and toxic substances. The GEF Alternative intends to achieve these outputs at a total incremental cost of approximately US$8.35 million.

Project development objective:

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

(i) improving oil spill prevention and response capacity;
(ii) improving the knowledge base about the Patagonia marine environment and its biodiversity, and
(iii) promoting capacity building and regional knowledge sharing to promote sustainable management of marine resources.

GEF Alternative

With the GEF assistance for addressing the international waters objectives outlined above, the GOA would be able to undertake a more ambitious program, that would generate both national and global benefits. The GEF alternative would comprise the baseline scenario, described above (fisheries management, basic oil spill equipment and limited information sharing), augmented with an expanded marine pollution prevention capacity and establishment of a marine electronic highway structure and the implementation of pilot activities in fisheries management and marine conservation. The total amount for the GEF alternative is calculated at US$ 36.76 million.

It is anticipated that the GEF alternative would catalyze additional development resources, beyond the baseline scenario, totaling US$ 18.76 million including the GEF contribution of US$ 8.35 million and an additional US$ 10.41 million, primarily for various aspects of the establishment of the marine electronic highway, improvements in maritime safety and piloting various program to reduce marine pollution and improve marine resources management. These resources would only be available under the GEF scenario.

The GEF alternative will make possible some pilot studies of how to reduce the biodiversity impacts from the fishing sector, and set the stage for policy changes that will include biodiversity considerations in the fishing sector. In particular the reduction of non target species, though the introduction of new technologies and use of restricted fishing areas, based on more accurate bottom maps. The GEF alternative increment would be US$ 0.49 million, and the GEF contribution to this is US$ 0.31 million.

The GEF alternative would have a significant effect on reducing maritime traffic risks and the associated damage that can effect the marine environment. The improvements under the GEF alternative will also provide practical management experiences to the key government agencies responsible for management in cutting edge technology and international collaboration. The policing of the actual polluters will also be significantly enhanced, making criminal practices and negligent behavior a less attractive proposition. The GEF alternative would cost US$ 10.12 million. The GEF alternative increment would be US$ 3.52 million with the GEF contributing US$ 2.14 million.

To improve sustainable management of international waters resources in Patagonian waters and enhance the knowledge base there will be significant global benefits including the testing of innovative marine resources management alternatives, priority setting of future conservation needs, enhancement of the global knowledge base of the resources and calibration of the Argentine institutional laboratories with the international standards, on a continuos basis. There will also be some domestic benefits from GEF alternative including the strengthening of Patagonia based institutions and the human capacity to manage the marine resources. The project also intends to foster a better climate for collaboration between the key actors. The GEF alternative would cost US$ 14.87 million with the increment costing US$ 11.97 million and the GEF contribution being US$ 3.98 million.

Finally the monitoring and evaluation activities and project management would generate some global benefits including the lessons from project implementation, a good baseline for future work and design experiences for future projects. The GEF alternative would be the same as the increment US$ 2.78 million with a GEF contribution of US$ 1.92 million.

Incremental Cost

The difference in cost between the Baseline Scenario and the proposed GEF alternative is estimated at US$ 18.76 million. Of this amount, it is estimated that about US$ 4.35 million would be contributions from the GOA, US$ 6.06 million would be contributions from the beneficiaries of the matching grant programs. It is estimated that an incremental cost of US$ 8.35 million will be incurred to achieve global environmental benefits through the improved management of international waters. This amount would therefor be eligible for GEF support. See the following table for a summary of the project components and the proposed financing plan of the incremental cost.

COASTAL CONTAMINATION PREVENTION AND MARINE MANAGEMENT

Component Sector	Cost Category	US$ Million	Domestic Benefit	Global Benefit
Fisheries Management	Baseline	8.50	Increased sustainability of commercial fisheries and social assistance program in the event of periodic closures of the fishery or sharp TAC reductions.	
	Alternative	8.99	Same as above.	Improved understanding and reduction of additional impacts on other species and on the marine ecosystem.
	Increment (GEF)	0.49 (0.31)		
Land-based and maritime pollution prevention	Baseline	6.60	Some capacity for remediation of oil spills and gradually improve the capacity to respond oil spills	
	Alternative	10.12	Same as above	Significant improvement in risk reduction of global/regional environmental degradation from maritime traffic and pollution through establishment and implementation of an "effective" oriented program.
	Increment (GEF)	3.52 (2.14)		
Knowledge Base on Patagonia Ecosystem and Capacity Building on Sustainable Management of Marine Biodiversity	Baseline	2.90	Limited support for information management through nodes of national network for environmental information.	
	Alternative	14.87	Strengthened institutional and human capacity in Patagonia region for sustainable management of marine resources.	Major enhancement of knowledge base of global relevance on Patagonia ecosystem; testing and innovation of marine biodiversity protection measures; and identification of priority ecological areas. Increased collaboration among research institutions linked to global scientific programs.
	Increment (GEF)	11.97 (3.98)		
Capacity Building, M&E, and Project Management	Baseline	0.0		
	Alternative	2.78		Lessons from project implementation relevant for similar projects elsewhere.
	Increment (GEF)	2.78 (1.92)		
Totals	**Baseline**	**18.00**		
	Alternative	**36.76**		
	Increment (GEF)	**18.76 8.35**		

Footnotes to Incremental Cost Matrix:

The Baseline Scenario represents government funding (including WB and IDB support) for the activities described in Section 2 (b) *Government Strategy*. The Alternative Scenario represents the additional activities under proposed Project which include government and beneficiary counterpart financing. Sub-component 2.2 addressing the development of marine protection tools is the incremental activity for Sustainable Fisheries Management. All other components of the Proposed Project are the incremental activities of corresponding baseline area.

Annex 5: Financial Summary

COASTAL CONTAMINATION PREVENTION AND MARINE MANAGEMENT

Years Ending December 31
(US$, 2002 base year)

	Implementation Period					Operational Period		
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 1**	**Year 2**	**Year 3**
Project Costs								
Investment Costs	0.99	4.48	4.26	4.27	2.46			
Recurrent Costs	0.30	0.30	0.40	0.50	0.80	0.07	0.07	0.07
Total	1.29	4.78	4.66	4.77	3.26	0.07	0.07	0.07
Financing Sources (% of total project costs)								
GEF	57%	68%	35%	36%	31%			
Government	43%	23%	22%	18%	25%			
Beneficiaries		9%	43%	46%	44%			
Total	100%	100%	100%	100%	100%			

Operational Period Main Assumptions

During the operational period, financing will be required to cover: (i) the reproduction of an ecological sensitivity atlas; (ii) courses that PNA will offer to the private sector on oil spill prevention; and (iii) maintenance of a GPS Differential System to determine the positioning of ships in areas at the greatest risk. These operational costs will be financed by private beneficiaries, through the sale of the ecological sensitivity atlas, course fees paid by the private sector, and maintenance fees paid by the ship owners, respectively.

Annex 6: Procurement and Disbursement Arrangements

COASTAL CONTAMINATION PREVENTION AND MARINE MANAGEMENT

Procurement

Table A. Project Costs by Procurement Arrangements

Table A1. Consultant Selection Arrangements

Table B. Thresholds for Procurement Methods and Prior Review

Disbursement

Table C. Allocation of Grant Proceeds

Annex 6, Table A: Project Costs by Procurement Arrangements
(US$ million equivalent)

Expenditure Category	Procurement Method				Total Cost (including contingencies)
	ICB	NCB	Other[a]	N.B.F.	
1. Goods	1.60	0.14	0.28	0.06	2.08
	(1.60)	(0.14)	(0.28)		(2.02)
2. Services and Workshops			2.78	1.02	3.80
			(2.78)		(2.78)
Matching Grants			2.50	6.06	8.56
			(2.50)		(2.50)
3. Incremental Operating Costs			1.05	3.27	4.32
			(1.05)		(1.05)
Total	1.60	0.14	6.61	10.41	18.76
	(1.60)	(0.14)	(6.61)		(8.35)

Note: ICB = International Competitive Bidding
NCB = National Competitive Bidding
N.B.F. = Not Bank-Financed

Figures in parenthesis are the amounts to be financed by the GEF grant.

[a] Includes goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, technical assistance services, workshop expenses, as well as expenditures for travel, training course fees and other costs related to the execution of the project.

Annex 6, Table A1: Consultant Selection Arrangements
(US$ million equivalent)

Consultant Services Expenditure Category	Selection Method							Total Cost (including contingencies)
	QCBS	QBS	SFB	LCS	CQ	Other	N.B.F.	
A. Firms		0.13			0.76		0.41	1.30
		(0.13)			(0.76)			(0.89)
B. Individuals						1.59	0.61	2.20
						(1.59)		(1.59)
Total		0.13			0.76	1.59	1.02	3.50
		(0.13)			(0.76)	(1.59)		(2.48)

Note: QCBS = Quality- and Cost-Based Selection
QBS = Quality-based Selection
SFB = Selection under a Fixed Budget
LCS = Least-Cost Selection
CQ = Selection Based on Consultants' Qualifications
Other = Selection of individual consultants (per Section V of Consultants Guidelines), Commercial Practices, etc.
N.B.F. = Not Bank-financed
Figures in parenthesis are the amounts to be financed by the GEF grant.

Annex 6, Table B: Thresholds for Procurement Methods and Prior Review

Expenditure Category	Contract Value Threshold (US$ thousands)	Procurement Method	Contracts Subject to Prior Review (US$ millions)
1. Goods			
	>350	ICB/NCB	All
	100 to 350	ICB/NCB	First two contracts
	<100	Shopping	First two contracts
2. Services			
Firms	>100	QBS/CQ	All
	< 100	CQ/Other	First two contracts
Individuals	>50	Other	All
	<50	Other	Review of TORs only

Approximate total value of contracts subject to prior review: $3,549,200

Procurement Risk Assessment and
Assessment of Agency's Capacity to Implement Project Procurement

The Overall Procurement Risk is assessed as AVERAGE. A Procurement Assessment has been carried out by the Procurement Specialist (PS), who found that the project does meet the Bank's minimum procurement management requirements and that the Project Execution Unit (PEU) has satisfactory organization and staffing arrangements. The PS has guided the PEU in preparing a preliminary Procurement Plan and has instructed the PEU on the procurement arrangements (such as standard bidding documents for NCB, shopping procedures, and rules on the hiring of individual consultants) that should be included in the project's Operational Manual. The PS found that project's current information system should be modified to produce the specific procurement information needed for ex-post supervision. Consequently, the grant is ineligible for PMR-Based disbursements. The PS has worked with the PEU to prepare an Action Plan in which an adequate information system will be implemented within six months of project effectiveness. At the end of the six-month period, the Procurement Specialist will re-assess the procurement risk. If the risk is assessed as low, the project may become eligible for PMR-based disbursements.

Procurement Action Plan:

Agreements	Due Date
1. Revised Procurement Plan for the first year of project implementation.	Negotiations.
2. Operational Manual (OM) shall contain specific rules on (a) hiring of individual consultants, (b) procurement below ICB thresholds, (c) filing and handling of correspondence, and (d) guidelines for the Matching Grant Program. OM shall also contain applicable standing bidding / selection documents. OM to include Update of the first year Procurement Plan and a mandate to update the Plan at least twice a year.	Approval by the Bank of the OM is a condition of effectiveness.
3. Information System shall be modified in order to produce specific information for ex-post procurement supervision.	Within six months of effectiveness.

Frequency of procurement supervision missions proposed: One every 6 months (includes special procurement supervision for post-review/audits). Procurement supervision will be performed by the Procurement Specialist (PS) and will include a review of: (i) the PEU's capacity; (ii) the procurement plan for the project, including a timetable for procurement actions anticipated during the next 12 months; (iii) the PEU's monitoring system; and (iv) complete records for one in every five contracts (for goods and consulting services, respectively).

Scope of Procurement under the GEF Grant

Procurement of goods and services, as well as contracting of consultants with GEF grant funds, would be carried out in accordance with Guidelines for Procurement under IBRD loans and IDA credits (January 1995, revised September 1997 and January 1999) and the Guidelines for the Use of Consultants (January 1997, revised September 1997 and January 1999).

Goods (prior review threshold $350,000). The GEF grant would finance goods and equipment for: (i) contingency plan analysis, the development of a geographically referenced database for the prevention of hydrocarbon spills, and furnishing a training center, as well as for oil spill trajectory modeling and producing a database to document ships entering Argentine ports and inspections; (ii) installation of a vessel tracking system; (iii) development of an Environmental Information System, ocean monitoring via oceanographic buoys and a ship, and completion of a sensitivity atlas. It is estimated that about US$2.02 million of the GEF grant would be allocated to goods and equipment.

Consultants' Services and Workshops (prior review threshold $100,000 for firms and $50,000 for individuals). The GEF grant would finance consulting services, including studies (about US$2.48 million), workshop expenses (approximately US$0.30 million) and the competitive grant scheme (about US$2.50 million), for a total estimated US$5.28 million.

Incremental Operating Costs. The grant would also finance incremental costs (about US$1.05 million), including travel expenses, training course fees, and other costs related to the execution of the Project.

Annex 6, Table C: Allocation of Grant Proceeds

Expenditure Category	Amount in US$ million	Financing Percentage
1. Maritime Pollution Prevention		
a. Goods and Equipment	1.37	100% (net of taxes)
b. Consultants' Services and Workshops	0.36	100%
c. Incremental Operating Costs[1]	0.42	100%
2. Marine Biodiversity Protection		
a. Goods and Equipment	0.59	100% (net of taxes)
b. Consultants' Services and Workshops	0.68	100%
c. Incremental Operating Costs	0.51	100%
d. Competitive Grant Scheme	2.50	100% of amounts disbursed
3. Capacity Building, M&E and Project Management		
a. Goods and Equipment	0.06	100% (net of taxes)
b. Consultants' Services and Workshops	1.74	100%
c. Incremental Operating Costs	0.12	100%
Total	**8.35**	

[1] Incremental operating costs include expenses for travel and training course fees, as well as other expenses related to project execution.

Annex 7: Project Processing Schedule

COASTAL CONTAMINATION PREVENTION AND MARINE MANAGEMENT

Project Schedule	Planned	Actual
Time taken to prepare the project (months)	39	
First Bank mission (identification)	03/1997	03/1997
Appraisal mission departure	11/2000	03/2001
Negotiations	02/2001	03/2001
Planned Date of Effectiveness	03/2001	12/2001

Prepared by: Secretariat of Sustainable Development and Environmental Policy

Preparation assistance: GEF Project Preparation Grant (PPG No. 28491)

Bank staff who worked on the project included:

Name	Specialty
Laura Tlaiye	Team Leader, Operational Aspects, Senior Environmental Specialist
Carl Lundin	Marine Biodiversity and Pollution Issues
Susana Cirigliano	Financial Management Specialist
Andrés Mac Gaul	Procurement Specialist
Angela Armstrong	Operations Analyst
Beatriz Iraheta	Language Program Assistant
Others who worked on project	
Fernando Manibog	Former TL
John Kellenberg	Natural Resources Economist
Luis Vila	Local Expert on Maritime Pollution
Renan Poveda	Consultant
Steven Schonberger	Fisheries Issues
Rocio Sarmiento	Language Program Assistant

Annex 8: Documents in the Project File*

COASTAL CONTAMINATION PREVENTION AND MARINE MANAGEMENT

A. Project Implementation Plan

The Borrower submitted a draft Project Implementation Plan and Project Manual in December 2000. The Project Implementation Plan will be finalized prior to project effectiveness.

B. Bank Staff Assessments (Found in Project files.)

Project Financial Management Assessment, Susana Cirigliano, Financial Management Specialist, January 11, 2001

Project Procurement Capacity Assessment, Andres Mac Gaul, Procurement Specialist, January 29, 2001

Biodiversity of the Patagonia Shelf, Agar, Astralaga and Lundin, draft 1999 in English and Spanish

C. Other

ARGENTINA: Towards Rights-Based Fisheries Management - Bank ESW Report 1999

Biodiversity of the Patagonia Shelf, MRAG Report 1999

Consolidation and Implementation of the Patagonia Coastal Zone Management Programme for Biodiversity Conservation—UNDP Project Document 1999

Coast Watch – Argentina Coastal Surveillance, Proposal by Radarsat and Hatfield, 2000

Electronic Marine Information Infrastructure component report, Lovingfoss 1998

Mission report for biodiversity overlay study, Astralaga, 1999

Preparation studies by Spider international, 1997

Puerto Madryn Workshop Findings on Biodiversity, Coastal Pollution, and Fisheries 1999

Site Visit and Assessment of Oil Spill Response Preparedness, ITPOF Report 1999

Technical Analysis of Electronic Marine Infrastructure Systems, Ezcurra & Schmidt S.A. Report 1999

Ushuaia Workshop Findings on Biodiversity, Coastal Pollution, and Fisheries 1999

*Including electronic files in the project workspace

Annex 9: Statement of Loans and Credits

COASTAL CONTAMINATION PREVENTION AND MARINE MANAGEMENT

A. Statement of IBRD Loans and IDA Credits in Argentina (as of September 28, 2000)

Active Projects							Difference Between Expected and Actual Disbursements [a/]		
			Original Amount in US$ Millions						
Project ID	Project Name	Fiscal Year	IBRD	IDA	GE	Cancel.	Undisb.	Orig.	Frm Rev'd
P044447	AR Catamarca Provincial Reform	2001	70.7	0	0	0	70.7	0	0
P057449	AR State Modernization	1999	30.3	0	0	0	26.6	21.6	0
P043418	AR-AIDS AND STD CONTROL	1997	15	0	0	0	3.5	2.8	0
P058526	AR-DRUG PREVENTION (LIL)	1999	4.8	0	0	0	4.7	2.2	0
P063388	AR-HEALTH INSURANCE FOR THE UNINSURED	2000	4.9	0	0	0	4.9	1.4	0
P045687	AR-HEALTH INSURANCE TA	1996	25	0	0	0	0.9	0.9	0
P034091	AR-HIGHER ED. REFORM	1996	165	0	0	0	76.5	76.5	2.2
P006059	AR-MATERNAL & CHILD HLTH & NUTRITION 2	1997	100	0	0	0	59.1	0.1	0
P006030	AR-PROV. HEALTH SECTOR DEVELOPMENT	1996	101.4	0	0	0	48	45.7	0
P055482	AR-PUB. HLTH. SURV. & DISEASE CONTROL	2000	52.5	0	0	0	52.5	6.8	0
P005992	AR-SECONDARY ED 1	1995	190	0	0	21.3	31	52.3	32.3
P006057	AR-SECONDARY ED. 2	1996	115.5	0	0	0	68.2	60.1	0
P050714	AR-SECONDARY EDUCATION 3	1998	119	0	0	0	31.1	29.4	0
P049269	AR-SOCIAL PROTECTION 3	1998	284	0	0	0	72.3	72.3	0
P006058	AR-SOCIAL PROTECTION 4	1999	90.8	0	0	0	75.5	10.5	0
P039584	B.A.URB.TSP	1997	200	0	0	0	141.5	69.8	0
P039787	BIODIVER.CONSEV PROJ	1998	0	0	10.1	0	8.4	-0.2	0
P055935	EL NINO EMERGENCY	1998	42	0	0	0	32.9	32.9	15.5
P006052	FLOOD PROTECTION	1997	200	0	0	0	165.3	98.7	35
P006040	FORESTRY/DV	1996	16	0	0	0	8.6	3.8	0
P006055	MINING SCTR DEVT	1996	30	0	0	0	1.8	0.5	0
P057473	INDIGENOUS COMMUNITY DEVELOPMENT LIL	2001	0	0	0	0	0	0	0

P055477	MINING TA	1998	39.5	0	0	0	13.8	13.8	0
P050713	MODEL COURT DEV.	1998	5	0	0	0	4.2	3.5	0
P006060	MUNIC DEVT II	1995	210	0	0	0	69.9	-51.4	0
P040808	N.FOREST/PROTC	1997	19.5	0	0	0	13.5	-1.2	0
P052590	NAT HWY REHAB&MAINT	1998	450	0	0	0	271.7	165.9	0
P046821	PENSION TA	1997	20	0	0	0	8.8	8	0
P006050	POLLUTION MGT.	1998	18	0	0	0	17.6	10.1	1
P006010	PROV AG DEVT I	1997	125	0	0	0	116.2	30.9	6.3
P006018	PROV DEVT II	1995	225	0	0	0	85.2	-1.1	0
P005980	PROV ROADS	1997	300	0	0	0	265.1	166.4	0
P037049	PUB.INV.STRENGTHG	1996	16	0	0	5.5	7.3	12.8	0
P005920	REDUCTION OF OZONE D	1997	0	0	0	0	13.4	-8.3	0
P006043	RENEW.ENERGY R.MKTS	1999	30	0	0	0	29.1	3.3	0
P005968	SEGBA V	1987	276	0	0	0	32.2	32.2	0
P006041	SMALL FARMER DV.	1998	75	0	0	0	42.2	22.2	17.9
P055461	SOC&FISC NTL ID SYS	1999	10	0	0	0	7.3	4.3	0
P062992	SPEC REPURCHASE	1999	505	0	0	0	500	0	0
P062991	SPECIAL SAL (SSAL)	1999	2525.3	0	0	250	500	750	500
P057459	Sustainable Fisheries Management Project	2001	5	0	0	0	5	0	0
P006046	WATER SCTR RFRM	1999	30	0	0	0	30	8.3	0
Result			6741.1	0	10.1	276.8	3016.3	1752.7	610.2

B. Statement of IFC's Held and Disbursed Portfolio

As of 8/31/00

(In US Dollars Millions)

		Held				Disbursed			
FY Approval	Company	Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1998	AUTCL	5.63	0.00	0.00	0.00	5.63	0.00	0.00	0.00
1994	Aceitera Chabas	0.00	0.00	3.10	0.00	0.00	0.00	3.10	0.00
1994	Aceitera General	7.50	0.00	6.90	0.00	7.50	0.00	6.90	0.00
1960/95/97/99	Acindar	50.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00
1994/95/96	Aguas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1977/84/86/88/94/96	Alpargatas	10.00	0.00	0.00	40.50	10.00	0.00	0.00	40.50
1999	American Plast	10.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
1993	Arg Equity Inv.	0.00	2.84	0.00	0.00	0.00	2.84	0.00	0.00
2000	Argentina SMMC	0.00	12.50	0.00	0.00	0.00	0.00	0.00	0.00
1994/99	BGN	0.00	0.00	33.00	0.00	0.00	0.00	33.00	0.00
1989/91/96	Banco Frances	4.10	0.00	0.00	0.00	4.10	0.00	0.00	0.00
1996/99	Banco Galicia	50.00	0.00	0.00	245.00	50.00	0.00	0.00	245.00
1995/97	Banco Roberts	30.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
1996	Bansud	3.39	0.00	0.00	0.00	3.39	0.00	0.00	0.00
2000	Bco Hipotecario	25.00	0.00	0.00	102.50	25.00	0.00	0.00	102.50
1996	Brahma - ARG	14.93	0.00	0.00	16.50	14.93	0.00	0.00	16.50
1988/93	Bunge y Born	0.53	0.00	0.00	4.01	0.53	0.00	0.00	4.01
1996	CAPSA	9.82	0.00	5.00	27.00	9.82	0.00	5.00	27.00
1999	CCI	0.00	20.00	20.00	0.00	0.00	20.00	6.00	0.00
1995	CEPA	6.67	0.00	3.00	1.20	6.67	0.00	3.00	1.20
2000	Cefas	10.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00
1999	Correo Argentino	63.00	6.82	5.18	0.00	63.00	6.82	5.18	0.00
1994/95	EDENOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	F.V. S.A.	11.25	0.00	4.00	0.00	11.25	0.00	4.00	0.00
1998	FAID	0.00	2.75	0.00	0.00	0.00	2.75	0.00	0.00
2000	FAPLAC	10.00	0.00	5.00	0.00	10.00	0.00	5.00	0.00
1992	FEPSA	2.75	0.00	2.00	0.00	2.75	0.00	2.00	0.00
1997	FRIAR	10.00	0.00	2.50	7.00	10.00	0.00	2.50	7.00
1996	Grunbaum	6.00	0.00	2.00	3.33	6.00	0.00	2.00	3.33
1997	Guipeba	13.93	0.00	5.00	0.00	13.93	0.00	5.00	0.00
1998	Hospital Privado	9.60	0.00	0.00	0.00	6.50	0.00	0.00	0.00
1992	Huantraico	0.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00
1995/97	Kleppe/Caldero	6.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00
1996	MBA	0.00	0.16	0.00	0.00	0.00	0.16	0.00	0.00
1992/93/96	Malteria Pampa	3.50	0.00	1.00	0.00	3.50	0.00	1.00	0.00
1995	Mastellone	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0/97	Milkaut	7.50	0.00	10.00	3.00	7.50	0.00	10.00	3.00
1978/81/86/87/91/93/96/99	Minetti	30.00	0.00	14.00	100.00	30.00	0.00	14.00	100.00
1993/94	Molinos	0.00	1.24	0.00	0.00	0.00	1.24	0.00	0.00
1995	Nahuelsat	17.50	5.00	0.00	0.00	17.50	5.00	0.00	0.00
1996/99	Neuquen Basin	0.00	5.00	0.00	0.00	0.00	3.81	0.00	0.00
1993	Nuevo Central	3.13	3.00	0.00	3.75	3.13	3.00	0.00	3.75
1992	Oleaginosa Oeste	1.53	0.00	2.50	0.62	1.53	0.00	2.50	0.62
1992/95	PAE - Argentine	9.09	0.00	0.00	18.18	9.09	0.00	0.00	18.18

1998	Patagonia	5.00	0.00	1.00	0.00	5.00	0.00	1.00	0.00
1998	Patagonia Fund	0.00	24.97	0.00	0.00	0.00	7.08	0.00	0.00
1990/94	Petroken	11.13	0.00	0.00	1.59	11.13	0.00	0.00	1.59
1994	Quilmes	7.14	0.00	0.00	2.50	7.14	0.00	0.00	2.50
1996	Refisan	12.73	0.00	0.00	15.00	12.73	0.00	0.00	15.00
1992	Rioplatense	5.33	1.00	0.00	1.67	5.33	1.00	0.00	1.67
1999	S.A. San Miguel	9.76	0.00	0.00	0.00	9.76	0.00	0.00	0.00
1995	SIDECO	0.00	15.00	0.00	0.00	0.00	15.00	0.00	0.00
1995	SanCor	12.50	0.00	20.00	9.00	12.50	0.00	20.00	9.00
1995	Socma	10.42	0.00	0.00	25.00	10.42	0.00	0.00	25.00
1997/98	Suquia	35.00	0.00	0.00	25.00	35.00	0.00	0.00	25.00
1997	T6I	10.00	0.00	5.00	26.25	10.00	0.00	5.00	26.25
1987/89/90/96/97	Terminal 6	10.00	0.00	0.00	11.38	10.00	0.00	0.00	11.38
1995	Terminales Port.	6.50	0.00	0.00	0.00	6.50	0.00	0.00	0.00
1995/00	Tower Fund	0.00	5.00	0.00	0.00	0.00	2.47	0.00	0.00
1995	Tower Fund Mgr	0.00	0.14	0.00	0.00	0.00	0.14	0.00	0.00
1996	Transconor	22.85	0.00	19.78	180.90	22.85	0.00	19.78	180.90
1998	U.Belgrano	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	Vicentin	21.25	0.00	0.00	6.00	21.25	0.00	0.00	6.00
1993	Yacylec	5.50	5.04	0.00	6.09	5.50	5.04	0.00	6.09
1996	Zanon	11.67	0.00	6.00	0.00	11.67	0.00	6.00	0.00
Total Portfolio:		646.13	127.46	180.96	882.97	626.03	76.35	161.96	882.97

Approvals Pending Commitment

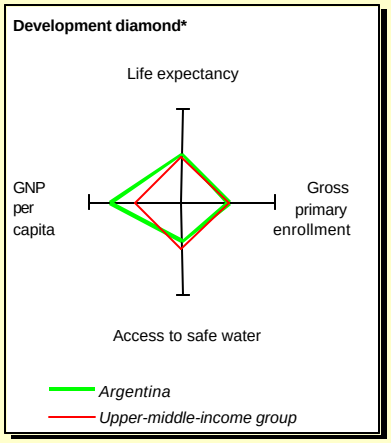
		Loan	Equity	Quasi	Partic
2000	ALEF	25000	0	0	150000
2000	APSF	20000	5000	0	30000
1999	American Plast	0	350	0	0
2000	Argentina SMMC	100000	0	0	450000
1999	Biopork	5200	0	2000	5000
2000	CAG Fund	0	10000	0	0
1999	DI TELLA	9000	0	0	0
1999	Galicia BLINC	0	0	0	75000
1998	U.Belgrano	15000	0	0	0
2001	USAL	10000	0	0	0
1999	Unisoy	5000	0	2000	4000
Total Pending Commitment:		189200	15350	4000	714000

Annex 10:

Argentina at a glance

9/12/2000

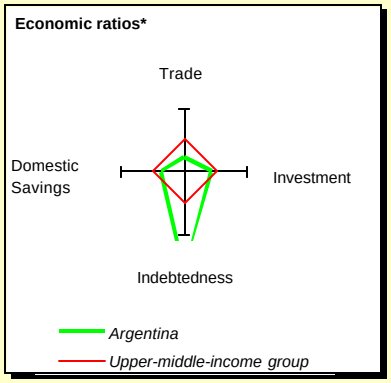
POVERTY and SOCIAL	Argentina	Latin America & Carib.	Upper-middle-income
1999			
Population, mid-year *(millions)*	36.6	509	573
GNP per capita *(Atlas method, US$)*	7,600	3,840	4,900
GNP *(Atlas method, US$ billions)*	277.9	1,955	2,811
Average annual growth, 1993-99			
Population *(%)*	1.3	1.6	1.4
Labor force *(%)*	2.1	2.5	2.1
Most recent estimate (latest year available, 1993-99)			
Poverty *(% of population below national poverty line)*	18	..	..
Urban population *(% of total population)*	90	75	76
Life expectancy at birth *(years)*	73	70	70
Infant mortality *(per 1,000 live births)*	19	31	27
Child malnutrition *(% of children under 5)*	2	8	7
Access to improved water source *(% of population)*	65	75	78
Illiteracy *(% of population age 15+)*	3	12	10
Gross primary enrollment *(% of school-age population)*	111	113	109
Male	111	..	..
Female	111	..	..



KEY ECONOMIC RATIOS and LONG-TERM TRENDS

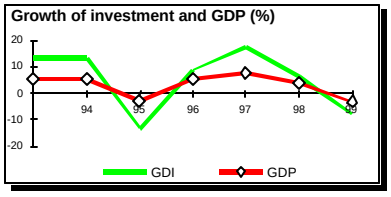
	1979	1989	1998	1999
GDP *(US$ billions)*	69.3	76.6	298.1	282.8
Gross domestic investment/GDP	25.9	15.5	19.9	19.1
Exports of goods and services/GDP	6.5	13.1	10.4	9.8
Gross domestic savings/GDP	26.0	22.0	17.4	17.4
Gross national savings/GDP	25.2	13.6	15.1	14.8
Current account balance/GDP	-0.8	-1.7	-4.8	-4.3
Interest payments/GDP	1.4	2.0	2.4	2.8
Total debt/GDP	30.2	85.6	47.1	51.2
Total debt service/exports	22.7	36.4	52.8	69.6
Present value of debt/GDP	..	..	50.5	..
Present value of debt/exports	..	..	410.1	..

	1979-89	1989-99	1998	1999	1999-03
(average annual growth)					
GDP	-0.4	5.0	3.9	-3.1	3.8
GNP per capita	-2.4	4.1	2.4	-4.1	2.9
Exports of goods and services	2.5	8.9	10.1	-1.1	4.1

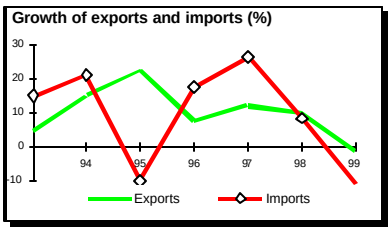


STRUCTURE of the ECONOMY

	1979	1989	1998	1999
(% of GDP)				
Agriculture	7.8	9.6	5.7	4.6
Industry	44.0	42.3	28.7	28.3
Manufacturing	32.7	30.9	19.1	18.2
Services	48.2	48.0	65.6	67.1
Private consumption	63.0	73.5	70.7	69.7
General government consumption	11.0	4.5	11.9	12.9
Imports of goods and services	6.3	6.6	12.9	11.5



	1979-89	1989-99	1998	1999
(average annual growth)				
Agriculture	0.5	4.0	10.3	-0.5
Industry	-1.2	4.6	3.2	-5.1
Manufacturing	-0.9	3.6	1.6	-6.9
Services	0.5	5.0	4.7	-1.4
Private consumption	..	3.8	12.1	-4.2
General government consumption	..	1.3	-1.1	1.2
Gross domestic investment	-4.6	9.3	6.6	-7.6
Imports of goods and services	-5.4	19.6	8.4	-11.2
Gross national product	-1.0	5.4	3.5	-3.3

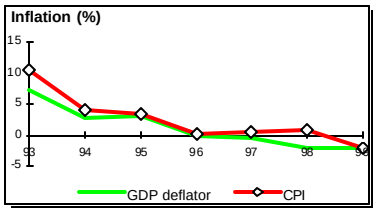


Note: 1999 data are preliminary estimates.

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

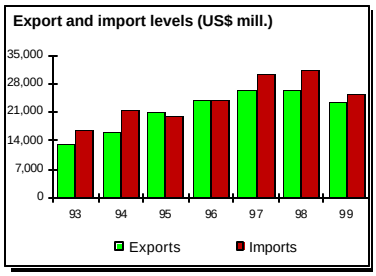
PRICES and GOVERNMENT FINANCE

	1979	1989	1998	1999
Domestic prices				
(% change)				
Consumer prices	159.5	3,066.3	0.9	-2.2
Implicit GDP deflator	147.4	3,057.6	-2.0	-2.2
Government finance				
(% of GDP, includes current grants)				
Current revenue	8.0	15.5	18.8	19.3
Current budget balance	3.7	-3.5	-0.3	-1.5
Overall surplus/deficit	-1.4	-6.3	-1.4	-1.7



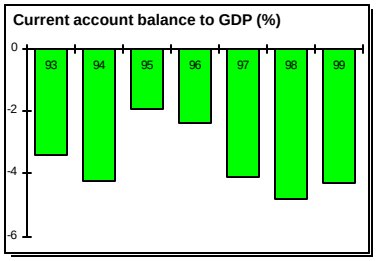
TRADE

	1979	1989	1998	1999
(US$ millions)				
Total exports (fob)	..	9,656	26,441	23,315
Food	..	1.016	3.056	2.428
Meat	..	716	836	653
Manufactures	..	3,186	17,387	15,082
Total imports (cif)	..	4,230	31,404	25,538
Food	..	..	..	466
Fuel and energy	..	389	852	674
Capital goods	..	1,450	15,649	11,909
Export price index *(1995=100)*	..	..	92	80
Import price index *(1995=100)*	..	..	92	85
Terms of trade *(1995=100)*	..	..	101	94



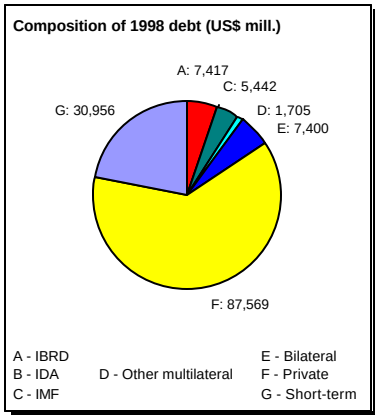
BALANCE of PAYMENTS

	1979	1989	1998	1999
(US$ millions)				
Exports of goods and services	9,176	11,759	31,123	27,758
Imports of goods and services	8,773	6,254	38,568	32,557
Resource balance	403	5,505	-7,445	-4,799
Net income	-973	-6,818	-7,335	-7,847
Net current transfers	26	8	388	394
Current account balance	-544	-1,305	-14,392	-12,252
Financing items (net)	..	107	10,954	11,051
Changes in net reserves	..	1,198	3,438	1,201
Memo:				
Reserves including gold *(US$ millions)*	..	10,814	24,906	26,407
Conversion rate *(DEC. local/US$)*	2.79E-8	4.23E-2	1.0	1.0



EXTERNAL DEBT and RESOURCE FLOWS

	1979	1989	1998	1999
(US$ millions)				
Total debt outstanding and disbursed	20,942	65,618	140,489	144,657
IBRD	367	2,281	7,417	8,591
IDA	0	0	0	0
Total debt service	2,251	4,385	19,690	23,571
IBRD	59	417	725	998
IDA	0	0	0	0
Composition of net resource flows				
Official grants	-2	54	31	6
Official creditors	233	660	2,072	1,538
Private creditors	4,334	-732	9,527	2,882
Foreign direct investment	206	1,028	6,150	11,120
Portfolio equity	0	8	50	-2,093
World Bank program				
Commitments	96	35	3,815	132
Disbursements	39	316	2,029	1,573
Principal repayments	24	221	350	445
Net flows	15	96	1,678	1,128
Interest payments	36	196	375	553
Net transfers	-21	-101	1,304	575



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