

**PROPOSAL FOR REVIEW
GLOBAL ENVIRONMENT FACILITY**

PROJECT TITLE:	ARGENTINA: CONSOLIDATION AND IMPLEMENTATION OF THE PATAGONIA STAL ZONE MANAGEMENT PROGRAMME FOR BIODIVERSITY CONSERVATION
GEF FOCAL AREA:	Biodiversity
COUNTRY ELIGIBILITY:	CBD Ratification - 22/11/94
INCREMENTAL GEF FINANCING:	US\$ 5.20 million
GOA COUNTERPART FINANCING:	US\$ 7.3 (Provincial governments, protected area management, in-kind); 500,000 (in-kind) Centro Nacional Patagónico/Fundación Patagonia Natural
CO-FINANCING:	IDB/GoA <i>Environmental Development Programme</i> (US\$ 1 million for Federal/Provincial integrated coastal zone management); CITES (US\$ 210,000 for ecotourism diversification); IDB/WB/GoA <i>Municipality Strengthening Programme</i> (US\$ 3.9 million for environmental coastal and marine zoning, protected area management) ¹
ASSOCIATED PROJECTS:	IDB/GoA/WB Municipality Strengthening Programme (US\$ 22.1 million for Patagonian provinces in infrastructure investment, i.e. sanitation, sewage treatment); IDB/GoA Modernization of Port System (US\$ 68 million for updated facilities and improved handling procedures, pollution control); WB/Pollution Management Project (US\$ 18.3 estimated for Patagonian coastal contamination component);
GEF IMPLEMENTING AGENCY:	UNDP
EXECUTING AGENCY:	UNOPS
LOCAL COUNTERPART AGENCY:	The Provincial Governments of Chubut, Rio Negro, Santa Cruz and Tierra del Fuego; National Secretariat of Natural Resources and Sustainable Development (SRNyDS);
LEADING NGO:	Fundación Patagonia Natural (FPN)
ESTIMATED STARTING DATE:	August 1997
PROJECT DURATION:	Five years
GEF PREPARATION COSTS:	None

Co-financing under negotiation

Project Summary

1. The primary objective of Integrated Coastal Zone Management(ICZM) is the “*improvement in the quality of life of human communities who depend on coastal resources while maintaining the biological diversity and productivity of coastal ecosystems*”². The full development of an ICZM programme normally evolves through five specific steps or phases over a period of eight to twelve years.
2. The *first phase* in the process - referred to as the identification and assessment phase - involves compiling, integrating, and prioritizing information that defines the environmental, social, economic and institutional context of the target region. This is followed by a *second phase* which involves the actual preparation of the plan or programme, the undertaking of scientific research needed to fill the gaps judged to be important to the understanding of the region, and the formulation of goals, specific objectives, policies, programmes and priority projects. *These two stages together commonly take between 3.5 and 6.5 years* depending on the degree of information available, the history of stakeholder participation and the complexity of socio-economic and environmental conditions of the region.
3. The *third phase* - formal adoption of the Coastal Zone Management Plan, involving the passage of legislation or official endorsement and funding for implementation of selected priority actions - *marks the shift in focus from technical issues to the political process* in which governance, and coordination aspects are of paramount importance requiring the full participation of governmental agencies and private sector interest groups which may alter the plan and/or affect its implementation. This includes not only the definition of institutional arrangements for co-ordination and implementation of the plan but also the development of clear management strategies, including practical delineation of roles and responsibilities.
4. Plan implementation follows as *phase four* and focuses on the initiation of priority actions within the limitations of available funding, testing new policies, consolidating the governance process and mobilizing additional resources for the implementation of further actions and programmes. The *fifth and final phase* of a complete cycle corresponds to the evaluation of the CZMP before progressing to the first phase of the next cycle in which a further set of priority issues to be addressed are identified.
5. The project proposed here builds on the products and accomplishments of the three-year, US\$ 2.8 million Pilot Phase project entitled *Patagonia Coastal Zone Management Plan*, and is the last phase for which incremental financing will be required. The Pilot Phase project - implemented by Fundacion Patagonia Natural (FPN) in three of the four provinces of Patagonia: Chubut, Santa Cruz, and Rio Negro - focussed on establishing a process for a coordinated, multisectoral approach to conservation of coastal and marine biodiversity based on sound scientific information, analysis of the relationships between sectoral development and biodiversity, and assessment, consultations, and preliminary design of the most effective institutional framework to carry out an inter-provincial strategy for the conservation of coastal biodiversity.
6. This strategy recognizes that specific actions and programmes to remedy the threats presently affecting coastal biodiversity will not be effective if implemented in an isolated manner by individual

Provinces and Municipalities. The specific characteristics of the 3,500 km Patagonian coast - with its globally significant biodiversity falling primarily under the jurisdiction of four provinces - has resulted in a fragmented approach to the management, use and conservation of the region's coastal and marine resources. Coordinated actions among the four provinces of the region is imperative if adequate protection of marine and coastal species, habitats and migratory routes is to be achieved. The formal establishment of provincial and inter-provincial management structures is required to implement, coordinate and monitor management and conservation actions in a coherent and comparable manner.

7. The principal output of the Pilot Phase Project was a strategic framework for investment and technical assistance for biodiversity conservation in Santa Cruz, Chubut and Rio Negro provinces within the context of ongoing planning for economic development. The project produced the following:

(i) previously unavailable scientific baseline data on coastal biodiversity, including species distributions and migratory patterns, their foraging areas and nesting and breeding grounds;

(ii) an analysis of the impacts and inter-relationships between sectoral development, habitat preservation and wildlife populations, including recommendations for the incorporation of conservation and sustainable resource use principles for each of Patagonia's leading productive sectors: fisheries, tourism, and oil.

(iii) maps and GIS outputs for appropriate development planning and monitoring based on a comprehensive zoning of the coast into high vulnerability sites for protection, multiple use areas, and areas of sustainable resource use and extraction potential;

(iv) a preliminary stocktaking assessment of legal and scientific information for each of the primary areas of coastal resource use: fisheries, tourism, pollution, and how they affect biodiversity;

(v) increased public awareness and ownership through stakeholder participation in the design of the Plan, including the establishment of partnerships between government, universities, NGOs and the private sector;

(vi) the identification and initiation of the necessary intra-and inter-provincial institutional management structures capable of undertaking an integrated, coordinated approach to long-term coastal resource management for sustainable use and conservation of biodiversity.

8. A high level evaluation of the GEF Pilot Phase project³ - using a widely accepted phased approach to coastal zone management as an evaluation instrument - concluded that the Pilot Phase Project made comparable or better progress than most coastal zone management initiatives within the bounds of a three year period. It praised the project on making particular progress in the establishment of a scientifically sound baseline; in identification of priority issues to be addressed in an implementation phase; in initiating effective consultations with stakeholders regarding conservation and sustainable use; in the integration between provincial and community levels for a common approach to planning and management of coastal biodiversity; in public education and outreach; as well as in early implementation actions. The evaluation placed the Patagonian process between phases 2 (planning) and 4 (implementation) in a typical CZMP cycle

and pointed out that "world experience repeatedly demonstrates that the most crucial juncture in a first generation CZMP is the transition between a phase devoted primarily to planning and research to an initial implementation phase."

9. The project proposed herein will provide the institutional foundations to coordinate the implementation of a Coastal Zone Management Programme for biodiversity conservation, and initiate sub-programmes for the adoption of biodiversity friendly production practices along the Patagonian coastline. It will establish an inter-provincial Protected Areas Network for the Patagonia coast, initiate a sub-programme for the adoption of biodiversity-friendly production practices by overcoming technical, legal and informational barriers, and consolidate and strengthen the institutional framework for long-term coastal zone planning and management aimed at biodiversity conservation and the adoption of biodiversity friendly production practices. The project will be implemented in all four of the Provinces of Patagonia, by replicating the Pilot Phase experience in the fourth Patagonia province, Tierra del Fuego.

1. Country and Sector Context

Globally Significant Biodiversity

10. Argentinean Patagonia is often regarded as the resource frontier of Argentina. A national programme provides direct incentives for development in Patagonia making it the fastest growing region of the country. With a 3,500 km coastline stretching between Rio Negro and the Straits of Magellan, the South West Atlantic coastal region that borders Patagonia is one of the richest, most highly productive, temperate marine ecosystems in the world. The southward coastal waters flowing over the vast and shallow continental shelf coupled with the cold, northward flowing Malvinas current, have given rise to waters rich in nutrients that support enormous populations of plankton and in turn a wide range of marine wildlife.

11. Although lower in absolute species diversity than tropical ecosystems, this region is characterized by its wildlife's great biomass, the relatively high percentage of endemic species and the fact that it provides breeding and feeding sites for many other species of global importance. While Patagonia has long been well-known for these globally exceptional biological resources, only recently has accurate scientific information been systematically collected - through the GEF Pilot Phase Project *Patagonia Coastal Zone Management Plan* - to estimate their abundance and distribution, assess their temporal and spatial use, evaluate actual and potential impacts and make recommendations to minimize them.

12. This project has provided detailed information on the seasonally dense populations of large marine birds and mammals that live in highly localized and clearly interdependent assemblages or colonies. Seals, sea lions, penguins, cormorants, gulls, and terns occur in colonies, commonly with thousands of individuals. Although scattered along the entire coastline, these colonies are not regularly distributed. A combination of the patterns of the cold marine currents and the seasonal winds blowing from the continent from September to November give rise to conditions of outstanding marine productivity in specific localities along the coast. These localities, such as the Valdes Peninsula, the north of the San Jorge Gulf, from Puerto Deseado to Punta Buque and the Beagle Canal, provide ideal breeding and feeding conditions for a wide range of species and constitute zones of globally outstanding biodiversity and/or abundance of unique species.

13. The southern elephant seal (*Mirounga leonina*) breeds between August and November on the Peninsula Valdes in harems containing 10 to 15 females, and is the only population of this species in the

world that is increasing in number with approximately 12,000 young per year. The San Jorge Gulf and Golfo Nuevo in the province of Chubut, are among the few remaining breeding sites of the southern right whale (*Eubalaena australis*). Almost 2,000 individuals - representing over half the world's population of this endangered species - breed in these localities.

14. Various species of dolphin such as the Dusky Dolphin (*Lagenorhynchus*) and Common Dolphin are widely distributed along the coast with approximately 9,300 individuals of the former being recorded in the 15,000 square nautical miles between Punta Ninfas and Cabo Blanco. Commerson's Dolphin (*Cephalorhynchus commersonii*), endemic to the Southern Cone, have a more limited distribution. Swimming in pods of ten to twenty that come close to the shore, between 1,500 and 3,800 individuals are thought to live in the 3,000 square nautical miles in the north of Santa Cruz. There are 75 colonies of sea lions. The South American Sea Lion (*Otaria flavescens*) has a population calculated at 75 to 80,000 individuals whilst the Southern Fur Seal is more scarce with approximately 20,000 individuals remaining.

15. Marine birds from the region have also been better documented through the Pilot Phase project. The endemic Magellanic penguin (*Spheniscus magellanicus*) breeds in vast colonies between September and March, in the Punta Tombo colony of 250,000 breeding pairs, representing the largest continental penguin colony outside of Antarctica. 150 colonies of between 1 and 8 species are distributed in 71 localities. Many of these localities are shared with the breeding and resting sites of sea lions and elephant seals. In total, 16 species of marine birds nest in areas along the coast, including the Grey Cormorant (*Phalacrocorax*), endemic to the Southern Cone. 40 marine bird species regularly use the waters of the Patagonian Continental Platform for feeding and the coast provides resting sites for many migratory species of birds of international importance such as the Imperial Cormorant (*Phalacrocorax*); the Petrel gigante del Sur (*Macronectes giganteus*); the Gaviotin Real (*Sterna maxima*); and the Albatros Ceja Negra (*Diomedea exulans*), to name a few.

16. This high coastal productivity, diversity and biomass of globally outstanding ecological importance, represents an area of great economic significance to Argentina. Patagonia has one of the world's largest continental and maritime zones of over 1 million km². Patagonian waters support one of the fastest growing commercial high-seas fisheries in the world with over 60% of total Argentine landings being caught in this region. Of the total Argentine fisheries income of US\$ 720 million, 427 million come from Patagonia with the off-shore fleet generating US \$ 396 million and coastal fisheries US\$ 76 million.

17. The uniquely accessible breeding colonies of charismatic species such as penguins, sea lions, whales and dolphins support a fast-growing tourism business of increasing economic value estimated presently at US\$ 54 million annually to the region. With predicted increases in tourism globally, especially in nature related tourism, this sector is projected to increase rapidly in the near future. This is illustrated by the increase in the number of whale watchers from 15,000 in 1992 to over 40,000 in 1996.

Threats to Biodiversity

18. While much of this vast coastline is still in pristine conditions, the globally outstanding productivity and diversity of this region, upon which these important economic sectors clearly depend, is coming increasingly under threat. The *oil industry* currently generates the largest income in the region at approximately US\$ 1.1 billion per year and represents 20% of the economy of Chubut. At the current rate of consumption the *revenues* have only an estimated life time of 10.2 years. Coastal oil wells, loading facilities and petroleum tankers are subjecting the area to increasing numbers of oil spills and illegal ballast washings. Forty-one thousand penguins die each year as a consequence of chronic oil pollution at sea and ten

per cent of mortalities at the Punta Tombo penguin colony are due to oil fouling. This not only represents a serious threat to this and other flagship species, but could also result in losses to the region through decreased tourism activity that would accompany any significant reduction in wildlife.

19. *Pollution* of coastal waters is also increasing from untreated sewage being discharged directly into the sea. Around 1.5 million people live in the four provinces of Rio Negro, Chubut, Santa Cruz, and Tierra del Fuego. Although still sparsely populated, the majority of the population lives along the coast distributed in 15 towns and cities. It is the fastest growing region in Argentina with the population of Puerto Madryn, in the Province of Chubut, for example, increasing from 9,000 to 50,000 inhabitants over the last twenty years. Signs of impacts on wildlife produced by untreated sewage effluents have been found. In addition, solid waste sites are causing growing populations of gulls which compete with rarer birds for nesting sites and change the overall species composition of the area.

20. The fast-growing *fishing industry* is also exerting its pressure on biodiversity of the area. Over the last four years the South Atlantic high sea fisheries doubled its catch, and some stocks, particularly that of hake, are in decline. This over-fishing not only puts at risk this valuable fishery but exerts pressure on all wildlife by reducing available food. Near-shore and artisan fisheries represent less of a threat with 30,000 tons per year or 6% of the total fisheries catch. Nevertheless, studies on coastal fisheries - primarily conducted through the Pilot Phase Project's "on-board observers programme" - show that the individuals of the target species returned to sea (reject rate) can reach 40% because they are outside the commercially acceptable size.

21. The "by-catch", or those species returned to sea because of their lack of market and hence no commercial value, can reach as high as six out of every seven species of fish caught. Whilst accurate corresponding figures for off-shore fishing are not available they are thought to be in the same order (50% of the catch weight in squid fishing, for example, is discarded into the sea as only heads are landed). In total, this represents approximately half a million tons a year that are discarded, representing a significant unused resource and creating problems of decomposition and associated changes in water quality. It also attracts large flocks of birds, especially gulls, which show signs of increasing populations to the detriment of other species in the region. With the prospect of a collapse in hake fisheries, the potential development of a major anchovy fishery further threatens the preservation of coastal wildlife, much of which is largely dependant on anchovies.

22. *Tourism*, while providing one of the most promising economic alternatives to the area, must be carefully planned to avoid increased pressures on faunal populations, and environmental and landscape quality which form the resource base for this sector. Wildlife reserves rarely include maritime zones that protect foraging territories critical to the effective protection of the areas in question. Furthermore, they are poorly managed - most do not have management plans - with insufficient facilities for administration, control and monitoring, and information for the tourist. Visitors can come too close to breeding animals causing disturbances and changes in reproductive success. Entrance fees are often low, poorly charged and there is an unclear return of this income to the administration of the reserves. Carrying capacity for these reserves has not been calculated, appropriate infrastructure and tourist services rarely exist thereby impeding tourism planning in concordance with the capacity of the region. Of particular importance is that of water supply in a region of scarce water. Signs of stress to this resource are already seen in centers such as Puerto Madryn which suffer frequent water cuts during the tourist high season. Pressures on this resource will directly effect tourism through increased levels of discomfort and also indirectly through the effects on wildlife from the resultant increase in contamination.

Institutional and policy framework for environmental management

23. At the *national level*, environmental protection in Argentina falls under the responsibility of the Secretariat for Natural Resources and Sustainable Development (SRNyDS) directly under the Presidency of the Republic. Biodiversity conservation *in situ* falls mainly under the responsibility of the National Parks Administration, an autonomous body within the framework of the SRNDS which administers *national* protected areas. It comprises 13 regional administrative divisions with technical support from four regional technical delegations, one of which is in Patagonia.

24. At the *provincial level*, protected areas fall under the responsibility of the respective Provincial Secretariats and Directorates charged with environmental protection. Within each government, the management of natural resources is partitioned in offices entrusted with oversight of wildlife utilization, fisheries, tourism and development. Specific responsibilities and functions vary with each province's institutional structure. In addition, most of the municipalities have related departments which differ in size, scope of activities, capacities and issues within their mandate and jurisdiction.

25. The coastal zone of Patagonia falls under the jurisdiction of the four provincial governments, Rio Negro, Chubut, Santa Cruz and Tierra del Fuego. In general, the Provinces exercise exclusive rights to manage resources within their boundaries, while federal agencies limit themselves to implementing management actions only in those areas which fall under federal jurisdiction (e.g., sub-soil resources and distant seas fisheries) or address international trade.

26. Argentina has taken important steps to address the loss of important biodiversity not only in Patagonia but throughout the national territory. It is Party to several international conventions related to the protection of biodiversity including Ramsar, CITES, Bonn and the Convention on Biological Diversity. In accordance with Article 6 of the latter, Argentina is presently formulating a *National Biodiversity Strategy and Action Plan* based on regional assessments and needs, including those of the Patagonian region. In this regard, both baseline information, as well as the multisectoral institutional structures put in place by the Pilot Phase Project, are considered instrumental for the effective implementation of these assessments, one of which will be in Patagonia. It is expected that these assessments will designate coastal zone management and conservation in Patagonia as a priority issue within the National Biodiversity and Action Plan.

27. In 1994, the National Constitution underwent a major reform with environmental protection becoming a prominent component of the Constitution. Article 41 of this Constitution establishes the need for minimum standards in a variety of environmental issues. These are presently being drawn up in a General Environment Law expected to be finalized in late 1997. Provincial and Municipal Constitutions have also undergone similar reforms and give special attention to the environment, including mandating Environmental Impact Assessments for all new developments. In the case of Provincial and Municipal governments, recent legal reforms have also reflected the findings and recommendations emitted by the Pilot Phase Project regarding integrated coastal zone management and conservation. Furthermore, Pilot Phase Project baseline information and zoning activities on coastal and biodiversity resources - particularly on the linkages/impacts between productive sector activity and ecosystem integrity - will be critical tools for the effective realization of the mandatory EIAs, as well as in overall development planning.

28. In 1995, the Argentine Parliament held preparatory meetings on biodiversity legislation in the Ecology Commission of the Senate and a draft biodiversity law is presently under discussion. In this case, recommendations and baseline information provided by the Pilot Phase Project facilitated the definition of

priority actions and remedial measures considered essential for coastal ecosystem management and conservation at the national level. While the biodiversity law is still in draft form it is expected to contain enabling provisions supportive of the objectives of this project.

29. In addition, Argentina has an important foundation for biodiversity conservation in its national and provincial systems of protected areas. At the national level, 29 protected areas under four different management categories cover 2.9 million hectares. Some 197 provincial reserves cover a further 11 million hectares, however, many of these do not count with surveillance or management of any kind. The system of National Parks is presently being strengthened through a loan from the World Bank that has recently started with an important component to consolidate and develop National Parks in interior Patagonia through infrastructure investments, training and institutional strengthening at both the national and regional level. None of these parks however cover marine or coastal areas.

30. Associated with the above-mentioned loan is a biodiversity conservation proposal currently being prepared with GEF Project Preparation Funds through the World Bank. The fully developed project is expected to create and/or consolidate *National Parks* in globally important ecosystems that are presently insufficiently covered under the National Protected Area System. The area to be designated on the Patagonia Coast - Monte Leon, an area under federal jurisdiction - will develop a management plan that will incorporate the needs and expectations of communities already living in the area. The project will also create a *national fund* for biodiversity conservation and an information system on National Parks.

Coastal zone management initiatives

31. In Argentina, **at the national level**, a preliminary version of a Coastal Zone Management Law is presently being drafted by the Argentine Senate. Although at a very initial stage and focusing principally on restoration activities in the Buenos Aires area, this Law represents the concern growing at the national level for sound management of coastal zones.

32. Two IDB-funded workshops are planned for the coming months to draw up Terms of Reference for a prefeasibility study to identify the requirements for coastal management at the *Federal* and *Provincial* levels and outline an initial national coastal zone management plan with provincial components to be further developed and implemented through a loan.

33. This initiative will draw on the baseline information developed by the Pilot Phase project to address the priority threats affecting coastal ecosystem integrity and the technical and investment needs related to remedial actions. In addition, the *Provincial Coastal Management Commissions* established as part of the Pilot Phase project will participate in the IDB-funded workshops to assist in the definition of priority investment activities for the Patagonia coastal zone. As such, it is expected that this forthcoming loan will finance *baseline activities* in the national and provincial interests for which this project will provide the incremental financing to protect globally important coastal and marine biodiversity in the Patagonian coastal zone.

34. In addition, the inter-provincial institutional structure, to be consolidated with the project proposed here, will permit more effective coordination of future investments and their execution in a programmatic and complementary manner.

35. At the Provincial level, the principal initiative related to coastal zone management pertains to the GEF-financed Pilot Phase project whose principal objective was to “*provide the coastal zone of Patagonia*

with the tools for implementing the sustainable use of its biological resources and for protecting its biological diversity". Implemented by the Patagonian NGO, Fundacion Patagonia Natural, and the Wildlife Conservation Society, the project provided a far-reaching compendium of base-line information regarding coastal resources and their use, and collected important new data on the relationships of wildlife, ecotourism, pollution and fisheries. In collaboration with a wide range of government institutions, research centers and other NGOs, the project held training courses, public hearings, meetings and workshops of the provincial coastal management working groups, and significantly raised the awareness of Patagonia's coastal communities regarding the region's biodiversity.

36. The project culminated in a *diagnosis* of the present state of Patagonia's coastal biodiversity and its relation to the tourism and coastal and artisan fisheries sectors, as well as of the present education and outreach deficiencies. Based on this, it outlined recommendations for *management and mitigation actions* in five thematic areas: coastal wildlife management; sustainable fishing; prevention of marine contamination; promotion of responsible tourism, and strengthening of protected areas.

37. These five thematic areas will be addressed through a programmatic approach carried out by UNDP and the World Bank: the World Bank - through a forthcoming initiative - will focus on oil spill contingency planning and management, mitigation of threats related to coastal shipping and land-based sources of pollution (urban, industrial, agricultural), and distant seas fisheries management. UNDP through the present project will address those pertaining to coastal wildlife management; biodiversity friendly fishing practices for near-shore and artisan fisheries; and strengthening of protected areas, including ecotourism development.

38. The thematic areas related to protected areas and wildlife management contained general recommendations to be applied throughout the region and specific recommendations for high vulnerability areas (see Annex 4&5). These areas were identified as crucial for the conservation of Patagonian coastal biodiversity. They range from extensive tracts of the coast - including islands and adjacent marine areas - requiring zoning into areas of differential use, to other more geographically restricted zones that have important colonies and groups of marine birds and mammals. The recommendations for each area not only include a proposed category of protection, but also concrete actions related to the mitigation of major threats to biodiversity.

39. The five thematic areas represent five separate but complementary sub-programmes which constitute the framework of a Patagonian Coastal Zone Management Programme (PCZMP) for the protection of biodiversity within the ongoing development of the region.

2. Project Objectives

40. The long-term objective of this project is *to conserve globally important marine and coastal biodiversity in the Argentinean Patagonia coastal ecosystem by integrating conservation and biodiversity friendly production practices into regional coastal planning and management*.

Specific Objectives

Objective 1: *Consolidate and strengthen the provincial and inter-provincial coordinating framework for long-term coastal zone planning and management aimed at biodiversity conservation and biodiversity friendly production practices.*

41. Based on the Pilot Phase experience in regard to provincial and inter-provincial coordination, the project will consolidate preliminary multisectoral coordinating and decision-making structures by: **i)** formally establishing the inter-provincial *Patagonia Coastal Commission (PCC)*; **ii)** formalizing the *Provincial CZM Commissions*; and **iii)** establishing an *Executive Secretariat* with a *Technical Support Group* to serve the Provincial Commissions and the PCC. The project will also replicate the Pilot Phase experience in the fourth Patagonia province, Tierra del Fuego, by establishing its multisectoral Provincial Coastal Zone Management Commission (see objective #2).

42. Since jurisdiction over the management, use, and conservation of coastal resources largely falls under provincial authority, the project will strengthen provincial authorities to assume additional responsibilities - as opposed to creating separate structures - required for biodiversity conservation and the incorporation of biodiversity friendly production practices within the context of coastal zone management. Provincial authorities will benefit from a coordinated approach to CZM by working together in an inter-provincial commission; this coordination at the inter-provincial level will allow for maximization of benefits to the provincial authorities from exchange of information for planning and policy making, training and institutional strengthening, and resource mobilization. The inter-provincial commission will also provide an important decision-making and coordinating framework for future investment programmes in the coastal zone in such areas as urban, agricultural and industrial pollution, oil contingency planning and transport management, and distant seas fisheries.

43. The **Patagonia Coastal Commission** - expected to be comprised of the governors of the four provinces and the presidents of the Provincial Commissions - will be a small high-level group responsible for decision making and the adoption of policies and legislation to enable the effective implementation of the PCZMP throughout the region. While it will effectively set the standards, specific conditions and criteria for expenditure - and thus create strong accountability - the vast majority of resources for PCZMP implementation will be spent at the Provincial level.

44. The *Patagonia Coastal Commission* will evaluate the annual implementation of the PCZMP, and, drawing from experiences throughout the region, make adjustments as required. It will also liaise with national entities in areas of federal jurisdiction and with the development of the Coastal management Law presently being discussed in Senate.

45. The **Provincial Coastal Commissions** - comprised of representatives of provincial government agencies, NGOs, universities, and the private sector - will be responsible for coordination, implementation and monitoring of conservation and biodiversity friendly production activities at the provincial level. The *Provincial Commissions* will provide information to the *Patagonia Commission* regarding status of biodiversity, development and conservation projects and programmes, and best practices in sustainable use of biodiversity and protected area management. The *Provincial Commissions* will also provide recommendations on sectoral issues and policies for further adoption by the *Patagonia Coastal Commission*.

46. The **Executive Secretariat**, with the assistance of the **Technical Support Group** (mentioned below), will provide operational support to the *Patagonia Commission* by managing information exchanges with the *Provincial Commissions*, collating their recommendations, coordinating the formulation of regional draft legislation/public policies, organizing annual meetings between the *Provincial Commissions* and the *Patagonia Commission* to incorporate and/or implement the recommendations into the PCZMP, preparing reports on key issues for circulation to members of the *Patagonia Commission*, as well as commissioning policy analyses. In addition, it will be responsible for coordinating resource mobilization efforts, and managing an information dissemination programme to raise awareness of the Coastal Zone Management

Programme at local, national and international levels. The *Executive Secretariat* will operate with a minimal professional staff, and make maximum use of electronic communication and information technologies to reduce operational costs.

47. The **Technical Support Group (TSG)** will be comprised of Fundacion Patagonia Natural's team of experts in conservation of biodiversity and coastal resources, information/communication technologies, and education and awareness raising. The TSG will play a fundamental supporting role for both the *Executive Secretariat*, the *Provincial Commissions*, and the *Patagonia Coastal Commission* in technical-related aspects of the Coastal Zone Management Programme, and design and implement the coastal monitoring system to evaluate the impact of the PCZMP on biodiversity. The Wildlife Conservation Society (WCS) with its considerable expertise and experience in Patagonian wildlife, will provide technical backstopping in this monitoring and in the overall activities of the TSG.

48. In addition to its role as *Technical Support Group*, FPN will coordinate the implementation of activities related to protected areas management, demonstration projects, and public awareness and outreach campaigns. As in the Pilot Phase, FPN will count on the participation of a wide variety of institutions and NGOs to implement specific activities in the above-mentioned areas. These are expected to include the *Fundacion Ambiente y Recursos Naturales (FARN)*, a leading environmental legal NGO, the *Fundacion Vida Silvestre* with conservation expertise in Patagonia, regional research institutions such as *Centro Nacional Patagonico (CENPAT)*, and *Centro Austral de Investigaciones Cientificas (CAFDIC)*, as well as regional universities. FPN will also extend the Coastal Zone Management Process tested under the Pilot Phase to Tierra del Fuego, replicate the process of consultation and determine the present state of globally important coastal biodiversity and priority threats to it.

49. The project will build the technical, managerial and administrative capacities of the above-mentioned bodies - including local NGOs working with Fundacion Patagonia Natural - through hands-on training, complemented by workshops, study tours, and awareness-raising activities.

Objective 2: *Full incorporation of the Province of Tierra del Fuego into the Patagonia Coastal Zone Management Programme for biodiversity conservation.*

50. The Pilot Phase project focussed on three of the four Patagonian provinces; Chubut, Rio Negro and Santa Cruz. With the experience of the Pilot Phase, this project will extend its coverage to the entire Patagonia coastal zone by implementing activities in Tierra del Fuego. These activities will adopt the best practices derived from Pilot Phase experience in the other three provinces. A Provincial Coastal Zone Management Commission will be established, stakeholder consultative processes initiated, and scientific analyses undertaken of coastal zone issues related to biodiversity conservation to establish baseline information. At the same time, this project will initiate key activities in conjunction with those under other objectives described below.

Objective 3: *Establishment of a Patagonia Coastal Protected Areas Network.*

51. Based on the Pilot Phase identification of critical areas for coastal and marine biodiversity - and ensuing recommendations to ensure protection - the project will institute an inter-provincial network of new and existing Protected Areas. This network will permit an ecosystem approach to biodiversity protection, monitoring and management of highly migratory and mobile species shared by the four Patagonian provinces. As well, a network will allow economies of scale in activities such as training, monitoring and

resource mobilization, and will promote a common approach to policy development and reform, conservation financing, and sustainable tourism development.

52. Obstacles currently impeding the *immediate* establishment of the network include: **i)** lack of technical and institutional capacities, **ii)** insufficient financial resources to immediately establish and maintain a comprehensive system, **iii)** absence of a harmonized and/or coordinated legal framework for Protected Areas and the corresponding institutional framework at both provincial and inter-provincial levels, and **iv)** lack of awareness by local stakeholders and provincial decision-makers of the potential economic benefits resulting from sustainable use of these protected areas.

53. The project will adopt a two-pronged approach to overcome the above obstacles, thereby reducing the risks associated with programming beyond the capacities of stakeholders to implement activities in an efficient or effective way.

54. This two-pronged approach will consist of two parallel but inter-dependent lines of action: in the first, the project will work in priority critical protected areas - in each province - to establish fully functional protected area management programmes (see Annex 2 for critical areas identified by the Pilot Phase project).

PA management programmes will, among other things, establish differential use-zones; redefine protected area limits where necessary; and determine, implement and monitor participatory management strategies including conflict resolution processes.

55. The purpose of these targeted projects is to permit stakeholders to gain practical experience and on the ground training in management and monitoring, identify best practices for replication in other PAs, identify and test options and strategies for mobilizing resources for self-sustaining conservation, as well as to test co-management methods and arrangements, and participatory methodologies.

56. In the second line of action, the project will work at the provincial and inter-provincial levels to develop the strategic, operational, legal and financial frameworks to ensure the future consolidation of the entire coastal PA network, including linkages with terrestrial PAs. This will be achieved by conducting in-depth assessments regarding: **i)** legal and regulatory requirements for the network, **ii)** institutional capacity requirements (technical, managerial, administrative), **iii)** financial requirements, **iv)** ecotourism potential, and **v)** monitoring of species and habitat.

57. This information will be crucial to the development of economic instruments for the capitalization of the Patagonia Conservation Trust Fund (mentioned below) as well as for the allocation of its resources.

Objective 4: *Establish a programme for alternative production practices, as well as diversification and optimization of biodiversity-related tourism, including wildlife management.*

58. Based on Pilot Phase analyses and findings regarding the impacts of key productive sectors on coastal and marine biodiversity, the project will establish and implement a programme for the adoption of production methods consistent with long-term conservation of biological resources focussing on the tourism and fisheries sectors (artisan and near-shore).

59. Activities will include: demonstration of alternative techniques and practices in artisan and near-shore fisheries and ecotourism; training of producers from the private sector, including fishing cooperatives; policy and legislative review, where appropriate, to provide incentives for sustainable production practices; identification of potential institutions to provide preferential credit to producers adopting recommended

practices; and information dissemination for replicability of best practices and awareness raising. As well, the project will work with the tourism sector - at both federal and provincial levels - to delineate a strategy and action plan for the development of coastal ecotourism and optimization of revenues from effective protected area and wildlife management. The strategy and action plan will highlight the untapped economic potential of Patagonia's biodiversity.

3. Description of Project

Objective 1: Consolidate and strengthen the inter-provincial coordinating framework for long-term coastal zone planning and management aimed at conservation and the incorporation of biodiversity friendly production methods into the productive sectors (\$US 1.20 million)

60. Output 1.1: Establishment of the inter-provincial Patagonia Coastal Commission (PCC) for biodiversity conservation, formalization of the Provincial CZM Commissions, and establishment of Executive and Technical Support Groups. (US\$ 0.35 million)

Activities will include:

Based on previous bilateral consultations, convene an induction workshop for the members of the *Patagonia Coastal Commission*, the *Provincial Commissions CZMCs*, and the *Executive and Technical Support Groups* to delineate roles, functions and responsibilities, and elaborate a work plan and meeting schedule based on recommendations from the Pilot Phase project.

Draft specific Terms of References for each of the above decision-making and coordinating structures, and circulate for formal endorsement.

Based on the TORs and on needs identified in the Pilot Phase, determine most cost-effective options for the effective execution of responsibilities, including reporting, information dissemination, monitoring, and resource mobilization; for example, an electronic information network would reduce travel and communication costs among the three provinces.

Analysis of the long-term, non-incremental maintenance costs of the interprovincial structure, including identification of potential funding sources (grants and loans), and development of a long-term financing strategy.

61. Output 1.2: Establishment of a programme to build the managerial, technical and administrative capacities of government and non-governmental agencies required for the effective conservation of coastal and marine biodiversity. (US\$ 0.50 million)

Activities will include:

Establish a **regional database** - including training in information processing, management and dissemination - to identify and display information regarding species and habitat distribution and status, projects and programmes, innovative experiences, and best practices. This information will be posted on the Website of the Patagonia Coastal Commission's Executive Secretariat and serve as a major and ongoing input to planning and decision-making.

Based on biodiversity indicators and baseline information collected during the Pilot Phase project, develop **a coastal biodiversity monitoring system** to enable Provincial authorities and NGOs to effectively and systematically monitor impacts of productive sector activity, as well as conservation programmes for coastal and marine biodiversity; this will include enhancing technical capacities through semi-annual workshops.

Train Provincial and NGO professionals in economic valuation of biodiversity resources, and the development of economic instruments and financial mechanisms to sustain conservation.

Train Provincial and NGO professionals in protected area planning and management, wildlife management, co-management methods, participatory processes, and conflict resolution modalities.

Train Provincial and NGO professionals in sustainable ecotourism development based on sound scientific information promotion, design of ecotourism infrastructure, return of benefits to local populations and conservation.

Train Provincial and NGO professionals in Coastal Zone Management principles and techniques.

Training of Provincial and NGO professional in the design, development and maintenance of electronic information systems.

Raise the awareness of key provincial decision-makers (government, NGO and private sector) through high-level workshops to analyze and discuss the incorporation of biodiversity conservation principles into sectoral planning and reform.

63. Output 1.3: Strengthened community stakeholder participation in the Patagonian Coastal Zone Management Programme process. (US\$ 0.05 million)

Develop and implement a community communications strategy through diverse media to inform of progress in PCZMP consolidation and implementation and stimulate participation in EIAs, where applicable, to increase community awareness of the goals, achievements and management strategies to conserve the region's biodiversity.

Develop stakeholder participation in the PCZMP process by direct involvement in resource monitoring and public hearings as a method of community involvement.

Using information gathered in the technical monitoring system, develop material to strengthen public awareness of the condition of the Patagonian ecosystem (Patagonia Status Report) and provide the basis for complementary curricula for school education programmes at primary and secondary levels.

64. Output 1.4: Long-term *Funding Mechanism* established for conservation of coastal and marine biodiversity (US\$ 0.3 million).

Provide technical assistance to establish a ***Patagonia Conservation Trust Fund*** including consultations with major stakeholders, definition of the scope of the Fund, analyses of its governance structure, actual and potential funding needs, as well as legal, administrative and operational requirements.

Define strategies for increasing the revenue generated by wildlife reserve entrance fees and natural resource use permits to assist in capitalizing the Trust Fund.

Develop and approve economic instruments (fiscal incentives, full-cost pricing, brown taxes) to assist in capitalizing the Fund.

Mobilize additional national and international funding for the Trust Fund in conjunction with the fund-raising activities of the Executive Secretariat of the Patagonia Coastal Commission.

Objective 2: Full incorporation of the Province of Tierra del Fuego into the Patagonia Coastal Zone Management Programme for biodiversity conservation. (US\$ 0.5 million)

65. Output 2.1: Fully functional Provincial Coastal Zone Management Commission, analyses of status of biodiversity and protected areas, including causal relationships between sectoral activities and biodiversity, identification of baseline information - socio-economic, biological, institutional. (US\$ 0.5 million)

Activities will include:

Replicate the process of consultation and participatory design successfully proven in the Pilot Phase Project to cover the coastal zone of the province of Tierra del Fuego

Undertake a diagnosis of the relationships of wildlife, ecotourism, pollution and fisheries in Tierra del Fuego determining the present state of globally important coastal biodiversity

Establish a baseline of information for the primary areas of coastal resources and their use to provide a benchmark against which the implementation can be measured

Identify priority actions for implementation as part of the PCZMP

Objective 3: Establishment of a Patagonia Coastal Protected Areas Network. (US\$ 2.85 million)

66. Output 3.1: Protected Area Management Programmes established for critical sites in each of the four participating Provinces. (US\$ 2.55 million)

Activities will include:

Based on Pilot Phase Project consultations, establish a *Protected Areas Working Group (PAWG)* - comprised of representatives of local governments, NGOs, Universities and the private sector in each Province - to lead the development of Protected Area Management Programmes in sites selected in accordance to their degree of threat, biodiversity value, vulnerability, and strategic importance for the overall inter-provincial system, under the overall guidance of the PCZMP Technical Support Group (FPN) (see Annex 2 for sites).

Train each PAWG in participatory methodologies for the formulation of PA management plans and to define common approaches to be adopted in each pilot site.

Develop and/or update management plans - as appropriate depending on selected site and its specific conditions - incorporating and implementing recommendations from the Pilot Phase Project's Protected Areas Programme (see annex 3 for both general and specific recommendations related to PA strengthening and management).

67. Output 3.2: A comprehensive Strategy and Priority Action Plan for the consolidation and maintenance of the Patagonia Coastal Protected Areas Network. (US\$ 0.30 million)

Activities will include:

Provincial Protected Area Working Groups and the Technical Support Group will undertake a consultative process for the development, review and endorsement of a Strategy and Priority Action Plan for the consolidation and maintenance of the Patagonia Coastal Protected Areas Network.

Conduct in-depth assessments regarding **i)** legal and regulatory requirements for the network, **ii)** institutional capacity requirements (technical, managerial, administrative), **iii)** information and information system requirements, **iv)** financial requirements, **v)** ecotourism potential, and **vi)** monitoring of species and habitat (this will be associated with the coastal biodiversity monitoring system).

Obtain technical reviews of each assessment from leading international authorities, and discuss and incorporate recommendations.

Integrate the different assessments into a Strategy and Priority Action Plan, which will highlight priorities for action for the network as a whole, resource requirements and technical assistance and investment needs.

Present the Strategy and Priority Action Plan to the Patagonia Coastal Commission for final endorsement.

Objective 4: Establish a programme for alternative production practices, as well as diversification and optimization of biodiversity-related tourism, including wildlife management. (US\$ 0.65) million

68. Output 4.1: Four projects demonstrating the feasibility of reducing the “reject” and “by-catch” rate in near-shore fishing to mitigate depletion of fishing stocks. (US\$ 0.35 million)

Activities will include:

Design and implement, in collaboration with coastal fishing cooperatives and regional fisheries administrators, projects to demonstrate the technical and financial feasibility of reducing the “reject” and “by-catch” rate in near-shore fishing, e.g., by using square mesh window in dragnets to allow juveniles and smaller species to escape in drag-net hake fishing in the Gulf of San Matias.

Monitor the progress, impact and feasibility of the demonstration projects, and disseminate findings to the Provincial and Patagonia Coastal Commissions and other fishing cooperatives (exchanges, videos, reports).

Evaluate the need, where appropriate, for fiscal and other incentives to expand the adoption of best practices, and draft recommendations for legislative review.

Evaluate, where appropriate, the need and availability of preferential credit, including the potential for micro-credit programmes.

69. Output 4.2: One project demonstrating the feasibility of guanaco rearing as an alternative source of income from tourism, wool and other associated products. (US\$ 0.21 million co-financing by CITES)

Activities will include:

Based on the recommendations of the Pilot Phase, design and implement a pilot project for rearing “Guanaco” (Patagonian Camellidae-*Lama guanicoe*) to provide alternative “ranch-based” tourism attractions (and hence reduce the pressure on marine biodiversity from overloading the carrying capacity of marine reserves)

Develop trails and tourist information interpreting native flora as a tourist attraction linked to areas of Guanaco rearing.

In conjunction with local communities and/or associations (which have expressed interest in this initiative) develop pilot-scale activities linked to Guanaco rearing to demonstrate the use of wool as possible sources of income from tourist sales (production of small artisan souvenirs, wool products etc.) and native flora (dried flower arrangement, pressed flowers etc.)

Monitor and document experience and results and report to the Provincial and Patagonia Commissions.

These activities will demonstrate the possible increased revenue related to native terrestrial fauna and flora ecotourism, hence reducing some of the pressure on marine biodiversity. They will also have important impacts on other biodiversity. By demonstrating a commercial value for this endangered endemic species, measures to protect it are more likely to be taken. The more widespread rearing of this species will also have a positive impact on the rapidly increasing problem of desertification threatening much of this unique terrestrial biodiversity of the arid Patagonian coastline.

70. Output 4.3: One pilot project testing/demonstrating the feasibility of increasing visitation fees to improve conservation management in reserves. (US\$ 0.10 million)

Activities will include:

Undertake willingness-to-pay and tourist satisfaction surveys at reserve entrance to determine viable increases in visitation fees.

Negotiate and implement an increased entrance fee for a defined experimental period, negotiating a percentage of the fee to feed-back into improvement of reserve services (interpretation material, trails, as well as overall maintenance and scientific monitoring).

Monitor seasonal tourist volume and satisfaction indicators.

Assess impacts of increased tourism on wildlife, determine carrying capacity, define zones within the reserve for restricted visitation, etc.

Monitor and document the experience and results of the pilot project and provide a comprehensive report to the *Provincial and Patagonia Commissions*, with recommendations for legislative or policy review, and future replication.

The selected area for the pilot project is *Punta Tombo* as it offers unique conditions as one of the major tourist attractions of the region. It also has an already existing monitoring and research programme run by the Wildlife Conservation Society (WCS) that has conducted and funded conservation projects in Patagonia for 32 years. In addition, with no close settlements or towns in the immediately adjacent areas (1.5 hours drive from Trelew), visitors are only attracted by the penguins, thus facilitating the measurement of the causal relationship between increased revenue, improved tourist services and stronger biodiversity protection.

71. Output 4.4: Inter-Provincial Ecotourism Policy, Strategy and Plan (US\$ 0.20 million)

Activities will include:

Provincial Commissions, in coordination with the Executive Secretariat, the Technical Support Group and federal counterparts, will provide to the Patagonia Commission a report on the status of tourism and coastal ecotourism development in their respective provinces. This will include:

Analysis of existing policies, plans and strategies pertaining to coastal ecotourism, as well as Pilot Phase information and recommendations.

Analysis of coastal ecotourism patterns, trends, and demand for and supply of ecotourism services.

Analysis of governmental requirements for monitoring, regulation, and monitoring of coastal ecotourism.

Workshop to review analyses and recommendations, and to determine steps to be taken for policy reform; and development of a strategic action plan for coastal ecotourism development.

4. Rationale for GEF financing

72. The Patagonian Coastal Zone supports globally significant marine and coastal biodiversity and represents one of world's areas of highest biological productivity. It houses some of the world's most accessible and diverse colonies of seabirds and mammals, many of which are endemic to the Southern Cone or endangered. The waters around the Valdes Peninsula have been compared to an oceanic Serengeti and the great bird and mammal "cities" of Punta Tombo, Punta Leon, Cabo Dos Bahias, Punta Roja, Punta Loaysa, Cabo Blanco, Punta Medanos, Monte Leon, and several other areas constitute a chain of inspiring wildlife spectacles as well as a very visible tip of the Malvinas current's biological wealth. These unique wildlife resources are exceptionally vulnerable to destruction and degradation if not sustainably managed. However the still relatively pristine conditions and scattered development mean that populations are still viable and that there is still time to protect this valuable biodiversity if action is taken urgently.

73. The project proposed herein seeks to protect these unique resources by promoting an integrated approach to coastal area development undertaking *in situ* conservation activities and incorporating biodiversity issues into sectoral planning. It will put in place a strengthened network of protected areas focusing on highly vulnerable biodiversity “hot spots”, with direct management interventions, promoting sustainable and alternative uses of biodiversity as livelihoods for local stakeholders and establishing financial mechanisms to ensure self-sustaining conservation of coastal biodiversity.

74. It will develop and strengthen the capacity of a wide range of stakeholders including Provincial and Municipal governments, private sector, NGOs, academia and local communities in Integrated Coastal Management processes and develop a sound governance structure with well defined managerial strategies and tools for the implementation of the consolidated Patagonian Coastal Zone Management Plan.

75. It will adopt an ecosystem approach to coastal zone integrated marine and coastal zone management that promotes the integration of scientific knowledge of ecological relationships with that of socio-political conditions and values to achieve biodiversity protection and sustainable management. As such this project falls within the mandate of GEF and the operational guidelines for the biodiversity thematic area and coastal, marine and freshwater ecosystem operational programme, and is in keeping with the guidance of the Conference of Parties to the Convention on Biological Diversity.

76. By implementing incremental activities from the Protected Areas Programme of the Pilot Phase Patagonian Coastal Zone Management Plan, and developing a participatory and well-structured governance process to initiate and co-ordinate the implementation of the other programmes, it will have leveraging effects on all sectoral activities identified as the principle threats to the region's coastal biodiversity, including oil contamination and distant seas fisheries. This has been previously highlighted by the upcoming IDB-sponsored workshops in which priority activities and investment needs will be identified to strengthen coastal zone management in Patagonia.

77. Equally important is the programmatic approach adopted by the World Bank and UNDP to effectively address the incremental activities related to the principal threats affecting coastal and marine biodiversity in Patagonia. In addition, the mechanisms for inter-provincial coordination and strengthened capacity for CZM in Provincial and local governments and private sector are expected to significantly leverage existing and additional funding for implementation of PCZMP programmes beyond the scope of this project.

78. Finally, the PCZMP as a process will be transferable to other developing coastal regions with similar coastal zone regions of high biodiversity and biomass such as Chile, Peru and Namibia.

5. Sustainability and Participation

79. The Pilot Phase project was highly successful and has been praised for its achievements in attaining stakeholder consultation and participation, which included federal and provincial governments, the private sector, research institutions and NGOs, as well as local stakeholders.

80. The development of the Pilot Phase PCZMP, to be consolidated and implemented in the project proposed herein, has been strongly participatory in nature counting with over 30 public and private institutions from three provinces and national government attending workshops, research activities and management exercises. This high level of participation confers sustainability to the CZM process in Patagonia and will facilitate the execution of project activities.

81. In addition, project implementing arrangements (see section 9) have been structured to maintain and formalize this level of participation, further increasing the sustainability of this process. The crucial role that the NGO Fundacion Patagonia Natural played in the Pilot Phase has demonstrated it can implement large scale grants and complex projects; FPN will be maintained in this second phase providing technical credibility and invaluable outreach services that strengthen the sustainability of the whole process. However, the PCZMP is at a highly critical juncture moving from a planning phase to an implementation phase. This transition is widely recognized to be critical to the success of any CZM initiative because it implies a shift in focus from technical issues to the political process.

82. In addition to participation elements, sustainability will also be addressed through the design and establishment of a Patagonia Trust Fund, along with the identification and approval of economic instruments for its capitalization. Furthermore, a strategic plan for optimizing coastal ecotourism revenue, diversification of coastal ecotourism, and incentive and credit systems for the adoption of biodiversity friendly production practices will provide an economic basis for the financial sustainability of the project's overall objectives.

6. Lessons learned

83. The project strategy has been designed based on the lessons learned during the Pilot Phase and the recommendations from the evaluation of this as indicated in section 1. It will continue to place emphasis on participatory processes and the important role of the NGO FPN. However, it has recognized the need to address critical institutional coordinating issues as a strategic, cost-effective way of promoting the implementation of the full range of programmes recommended by the Pilot Phase Project which together will provide remedial action to reduce the present threats to the regions coastal biodiversity. In addition, the project strategy includes a series of training and monitoring activities to be undertaken with the technical assistance of international experts in Coastal Zone Management to ensure that the project implementation benefit from world-wide initiatives and incorporates recommendations from these over the course of its execution.

7. Project Budget

84. Total budget: US\$ 5.2 million (See Annex 6 for detailed budget).

8. Incremental Costs

85. See Annex 1.

9. Issues, actions and risks

86. As with all integrated coastal management initiatives, this project builds fundamentally upon the combined interests and commitments of a wide range of agencies from provincial governments, national government, research institutions, universities and non-governmental organizations. Participation levels in the Pilot Phase - as well as in the design of this proposal - indicate that this commitment is high and thus the risk of failed commitment is low. Political commitment has been identified as most critical at this point of the CZM process and the project strategy and structure has been designed to maintain this as high as possible (see section 4, 5 and 9).

87. The project strategy has been designed to address the risk of political turn-over, which may effect continuity in the high-level political CZM Commissions. Management programmes in specific localities that reflect the microcosm of the coast's main issues will be undertaken. In these specific sites, the process of CZM will be developed with local communities and stakeholders which tend to be more stable than high level political bodies. This will be reinforced by educational and outreach actions. By catalyzing change at the local and community level it is expected that the CZM experience and capacity will be transferred and multiplied across society in a "bottom-up" approach that counteracts the risk of instability in the top-level management structures.

88. Although unlikely, loans targeting the baseline activities of coastal zone management may not materialize in an acceptable time frame. This would reduce the synergy and impact associated with the timely confluence of baseline and incremental funding. This GEF project will, however, be instrumental in expediting the projected baseline loans.

10. Institutional framework and project implementation arrangements

89. As highlighted before, jurisdiction over the management, use, and conservation of coastal resources falls under provincial authority, which is reflected in the following project implementation arrangements.

90. A **Project Implementation Unit (PIU)** - comprised of FPN technical experts and administrative support staff - will be directly responsible for project implementation.

91. The Project Implementation Unit will be accountable to a **Steering Committee**, comprised of representatives of the four Provincial Commissions and UNDP; the Steering Committee will select the Project Director. As previously mentioned, the Provincial Commissions are composed of representatives of key provincial government agencies, NGOs, the private sector and universities, thereby conforming multisectoral decision-making bodies empowered to oversee coastal zone management and conservation in an integrated manner.

92. The **Steering Committee** will be responsible for ensuring effective coordination between this project and other initiatives and programmes addressing the five thematic areas identified as priorities in the Pilot Phase.

As described in paragraph #37, these thematic areas will be addressed through a programmatic approach involving different agencies and sources of funding, including the IDB and the WB lending programmes. Over the long-term this programmatic approach will be coordinated by the Patagonian Coastal Commission.

In addition, the Steering Committee will review and approve workplans, review and approve subcontracting, consult with stakeholders in the respective Provinces, and monitor project implementation. It will also draw on high-level experts and organizations with experience in Patagonia for assistance during critical periods of project implementation. The Steering Committee will report to the **Patagonia Commission**.

93. As described previously, the Patagonia Commission is expected to be comprised of the four provincial governors, together with the Chairs of the Provincial Commissions. The Patagonia Commission will ensure collaboration with the Federal Government in areas where jurisdictional issues might require closer coordination, such as oil management and transport and distant seas fisheries.

94. A **Project Advisory Board** will be comprised of representatives from relevant government institutions such as SRNDS and COFEMA, and NGOs such as IUCN-Argentina (as the lead member of the National

Biodiversity Strategy's Technical Coordination Unit), recognized experts in Patagonian biodiversity such Wildlife Conservation Society (WCS), and internationally renowned centres in coastal zone management, such as the Coastal Resource Center of Rhode Island University.

95. The Project Advisory Board will review periodic project progress reports provided by the PIU through the Steering Committee and recommend corrective measures where appropriate, assist in coordination with other agencies and programmes, and commission project monitoring and evaluation.

96. Project activities will be largely implemented through subcontracts, based on national and international competitive bidding procedures, as appropriate. Subcontracting processes will be managed by United Nations Office of Project Services (UNOPS). Terms of Reference and selection criteria subcontracts will be formulated by the Project's Steering Committee which includes UNDP.

97. A subcontract will be awarded to Fundacion Patagonia Natural - *in recognition of their experience and capacities as the primary implementing agent for the Pilot Phase Project* - for implementation of Objectives #2 and #3 related to the expansion of project activities to Tierra del Fuego, the establishment of a Patagonia Protected Areas Network, training in protected area planning and management, awareness raising campaigns, development of a coastal biodiversity monitoring system, information dissemination, strengthening of community stakeholder participation, and demonstration projects for alternative practices in near shore fisheries.

98. Other sub-contracts will be awarded for: **a)** the design of a Patagonia Conservation Trust Fund, biodiversity valuation, the development of economic instruments, and related training; **b)** implementation of a project to demonstrate the feasibility of protected area financing through improved ecotourism fees; **c)** the development of an inter-provincial ecotourism policy, strategy and plan; and **d)** technical assistance for the establishment and consolidation of an inter-provincial coordinating institutional structure for planning and management of biodiversity conservation in the four Patagonian Provinces.

Annexes:

Annex 1:	Incremental Cost Analysis
Annex 2:	Technical Review (STAP)
Annex 3:	Critical Areas for Marine and Coastal biodiversity conservation
Annex 4:	Management objectives and recommendations for priority protected areas
Annex 5:	Strategic guidelines for tourism
Annex 6:	Project Budget
Annex 7:	Final External Project Evaluation
Annex 8:	Government Endorsement
Annex 9:	Patagonia Coastal Management Structure
Annex 10:	Project Implementation Structure

Consolidation and Implementation of the Patagonian Coastal Zone Management Plan (PCZMP) for Protection of Biodiversity

Incremental Costs Analysis

A. Project Background

The aim of this project is to conserve globally significant Patagonian marine and coastal biodiversity. It will do this by implementing the protected areas programme of the Patagonian Coastal Zone Management Plan (PCZMP), developed under the GEF Pilot Phase Project, and by demonstrating the feasibility of biodiversity friendly production practices and methods in the ecotourism, coastal/artisan and wild-life management sectors. It will also formalize and put in place the institutional and procedural arrangements vital to the successful implementation - through diverse funding sources - of other PCZMP programmes critical to the conservation of unique marine biodiversity.

B. Incremental Cost Analysis

1. Broad Development Goals

The Patagonia region covering the Provinces of Rio Negro, Chubut, Santa Cruz, and Tierra del Fuego, has often been considered as the resource frontier of the country. Notwithstanding its still small population, Patagonia is now the fastest growing region of the country. The national government has designed incentives to promote the development of this area, including special loans for industry and tax cuts for energy supplies. In addition, provinces are being encouraged to seek their own means of support and a series of internationally funded loans with regional and local components are being pursued to finance development at the provincial and municipal levels.

It is broadly accepted that natural resources play a key role in this development process. Both national and provincial governments have demonstrated interest in protecting these resources and the environment, not only in Patagonia but throughout the national territory. In relation to this, and in recognition of the importance of the coastal zone to Argentina, with 41% of the nations population concentrated in 100 settlements along its 4,899 km coastline, a draft law to establish an Integrated Coastal Zone Management System is also under discussion in the Senate. Furthermore, a draft biodiversity law is also presently under discussion in the Senate and a National Biodiversity Strategy is being developed together with an Action Plan containing specific programmes and projects considered of priority for its implementation.

Despite this progress, the Government is not able to fully finance all the conservation activities necessary to protect the countries widely varied ecosystems and their biodiversity due to the severe financial constraints imposed by the structural adjustment programme it has recently undertaken to fight the economic crisis and acute inflation.

2. Global Biodiversity Objectives

The Patagonia coast, stretching over 3,500 km and four provinces, represents 70% of the nation's entire coastline. The vast continental platform and the Malvinas current have given rise to waters of exceptionally high productivity that support an impressive range of species most of which are endemic to the region or globally threatened. The unique conditions provide ideal breeding sites for many species and resting sites for migratory species of international importance. The coastline is characterized by the exceptional biomass of

ANNEX 1

certain species found in colonies of many thousands of individuals forming what is often referred to as a marine Serengeti.

The majority of the marine globally significant biodiversity in Patagonia consists of large birds and mammals high in the food chain. Their exceptional abundance in Patagonia is mainly due to the nutrient-rich waters which support a wide range and abundance of micro-organisms, marine invertebrates, and fish that constitute their food base.

Major current threats are as follows:

(i) *marine contamination*. This is partly due to untreated effluents discharged directly into the sea and partly to illegal ballast washings and poor management of oil loading and marine transport procedures. This contamination threatens globally important biodiversity in two forms. Directly in the case of oil spills, especially significant in species such as penguins that swim at the interface of the water (41,000 penguins in the region die annually from oil pollution at sea). Indirectly when poor water quality resultant from urban and industrial discharge destroy the flora and fauna that form the food base of these larger animals.

(ii) *losses of biodiversity due to excessive by-catch and rejection rates*. This is partly due to excessive by-catch and reject rates resulting from current practices and technologies used in the near-shore and artisan fisheries.

(iii) *increased and poorly managed tourism*. The potential collapse in the fishing industry has prompted greater focus on tourism as an alternative economic activity for the region. This increase is largely associated with the uniquely accessible colonies of large birds and mammals and the spectacular sight of the Right Whale that comes close to the shores of the region during breeding season. Lack of well-defined tourism plans, clear ecotourism policies and control, mean that in many cases tourists can come within feet of these animals thereby causing disturbances in their reproductive and feeding habits endangering their long-term survival. This is exacerbated by the absence of a regional (Patagonian) network of protected areas with specific management plans determining - among other things - carrying-capacity and conservation-oriented revenue management.

Unless these threats are adequately addressed the unique biomass and biodiversity of the region will be lost not only representing an infinite loss to the global community but also lost opportunities to local inhabitants whose livelihoods are firmly based on these resources either through fisheries or tourism.

3. Baseline Activities

The project's baseline consists of a wide range of on-going and planned capacity building and investment activities at the national and provincial levels addressing in part the threats described above.

Threats related to marine contamination from untreated effluents, industrial and agricultural run-off, are being partially addressed through the following baseline activities. An IDB/GoA funded US\$ 26 million *Environmental Development Programme* designed to develop a model for an integrated Federal and Provincial approach to environmental management, is providing resources for Workshops and consultancies which will draw-up Terms of Reference for a *Coastal Zone Management Programme feasibility study* that will determine the development of a project for eventual IDB financing. Baseline activities related to infrastructural investments and technical assistance for mitigation/reduction of contaminant run-off, untreated effluents, including the strengthening of technical and administrative capacities to implement them, are expected to be among priority activities.

Complementary to this is a *US\$ 600 million Municipality Strengthening Programme* (funded equally from the IDB, the GoA, and WB) which provides an estimated US\$ 26 million to Patagonian municipalities (Tierra del Fuego 1.3 million; Santa Cruz 4 million; Chubut-9 million; and Rio Negro 10 million) for infrastructural investment and related technical assistance, mainly in the basic sanitation sector. Approximately 15% of this amount (US\$ 3.9 million) is expected to be spent however, on direct environmental projects and initiatives such as environmental zoning, and protected areas.

A *Pollution Management Project* now under preparation for eventual World Bank, Japan Exim Bank and GoA financing is expected to address three priority pollution problems: urban/industrial; air pollution and coastal contamination. Puerto Madryn is the selected Municipality for issues related to coastal contamination with activities targeted towards the prevention and abatement of land-based and water-based contamination, including monitoring and testing sewage and industrial effluents, co-financing wastewater treatment facilities, developing oil spill monitoring and compliance capabilities and regional oil spill contingency plans. The total baseline cost of the programme is estimated to be in the order of US\$ 55 million of which approximately a third would be destined to the Coastal Contamination Component in Puerto Madryn, Patagonia.

A *Ports System Modernization project* presently under preparation for joint-financing by IDB and the GoA (US\$ 108 million IDB and GoA) provides approximately 63% of these funds (\$US 65 million) for infrastructure and institutional building in the Patagonian Provinces of Chubut and Santa Cruz. Environmental quality will be enhanced by up-dated port facilities and improved handling procedures as well as some direct environmental management capacity-building activities.

Baseline activities and corresponding expenditures for protected area management and conservation-based tourism for the four Provinces total approximately US\$ 0.66 million annually by the province of Chubut related to the administration expenses of Isla de los Pajaros, Istmo Piramide, Punta Norte, Caleta Valdes, Punta Lomo, Punta Tombo and Cabo dos Bahias Reserves, with an estimated US\$ 0.8 million for the other Provinces, resulting in a combined annual total baseline of US\$ 1.46 million annually or US\$ 7.3 million over the life of the project.

The existing baseline provides both global and domestic benefits through increased investment and technical assistance in threat-related activities resulting in substantial benefits to Patagonian biodiversity through increased prevention of marine contamination, improved federal, provincial and municipal capacities to manage growing coastal development, as well as resource use and productive activities under their corresponding jurisdictions.

Despite all this progress, current baseline activities are however insufficient to *effectively* address the threats that jeopardize the integrity of this ecosystem and its globally significant coastal and marine biodiversity. Whilst marine wildlife breed in specific localities, their foraging areas are vast and their migratory patterns cover the entire Patagonian coast.

The regional nature of many of the threats, such as water contamination and pollution, oil transportation and fisheries, require co-ordinated regional responses if effective remedial action is to be taken. Protected-areas in coastal biodiversity hotspots need to be strengthened through management plans that define differential-use zones negotiated with stakeholders, as well as re-defined and demarcated to cover critical foraging areas. This will require co-ordinated actions between the provincial and the national levels to address overlapping jurisdictions of these marine areas and their uses.

ANNEX 1

Baseline activities and programmes, while an essential complement, do not provide in themselves the scope or resources for the following activities considered vital for the conservation and appropriate uses of the region's biodiversity: i) regional co-ordination for biodiversity conservation; ii) identification, implementation, and replication of best practices for the use of biodiversity; and iii) strengthening and establishing protection measures of key species through improved protected area networks, and implementation of guidelines and recommendations for soundly managed conservation tourism.

In addition capacity-building and technical assistance activities included in the baseline, whilst addressing environmental management in general, do not adequately provide or include the specific skills and instruments needed for coastal and marine biodiversity conservation, monitoring, and financing, nor the participation and partnerships of the full range of stakeholder that this process and activities would require.

4. The Proposed Alternative

The proposed alternative strategy recommended here, will build on and complement existing and planned baseline activities by incorporating additional elements considered essential for the effective long-term conservation and sustainable use of Patagonia's coastal and marine biodiversity. Hence project activities have been specifically designed to provide and generate the additional global benefits partially attained by baseline activities undertaken in the national interest and benefit.

The first line of action in the proposed alternative pertains to Objective #1-#2 addressing the need for a consolidated provincial and inter-provincial coordinating framework for biodiversity conservation and the incorporation of biodiversity friendly production practices into sectoral development in the four provinces of Patagonia.

The formalization of the proposed Patagonia Coastal Management Commission, the Provincial Coastal Management Committees, and its operational and Technical Support Group *is essential to the successful implementation of the PCZMP for the conservation of globally outstanding biodiversity.* Not only will it provide and permit a coordinated approach towards the conservation of the Patagonian ecosystem but ensure that existing funds designated to the region are channelled to implement priority actions of the PCZMP. This inter-provincial coordinating structure will also assist in the leveraging of additional funds by providing a clear mechanism through which to review the overlapping and conflicting jurisdictions and legislation that have impeded more widespread investments in the region especially from the private sector.

Incremental expenditure will be necessary as a **one-time operation** to cover the initial costs of setting up, putting in place, and initial operationalization of these mechanisms. Global benefits derived from this action critical to successful PCZMP implementation are clear. Concurrent domestic benefits will also occur. As a result of these domestic benefits, and as the process of PCZMP implementation becomes more firmly established during the life of the Project, recurrent costs for the above-mentioned coordinating structures will be financially sustainable without further GEF funds.

The second line of action in the proposed alternative pertains to objective #3 and the need to implement priority actions identified in the Protected Areas Programme of the Pilot Phase (PCZMP). Whilst the strengthening of all the existing protected areas in the region will be ultimately necessary, incremental funding is required to develop participatory protected area management plans, in key localities of highly vulnerable biodiversity. This will provide immediate and appropriate protection to critical areas and install the capacity for widespread application of these procedures throughout Patagonia.

The third line of action in the proposed alternative pertains to objective #4 and the establishment of a programme for alternative production practices, as well as diversification and optimization of biodiversity-related tourism, including wildlife management.

Traditional artisan and coastal zone fishing practices presently result in by-catch and rejection rates that deplete the food source of globally important species. The proposed alternative is to demonstrate the feasibility of alternative fishing practices that reduce these rates in artisan and traditional fisheries. The incremental expenditure will cover the costs of testing these alternative practices in specific localities and strengthening the capacity of local fishing communities and on-shore fishing fleet to implement them. It is a one-time operational cost; after consultations with the coastal fishing sector conducted through the Pilot Phase project's on-board observer programme, cofinancing is expected from coastal fishing cooperatives. Once the feasibility of the practices has been demonstrated and an incipient capacity for their application installed, widespread application is expected to be financially sustainable requiring no further incremental funding.

Increased tourism visitation to reserves is placing excessive pressure on wildlife. The proposed alternative is to demonstrate the feasibility of recommendations from the Pilot Phase PCZMP to alleviate this pressure.

The first related to *the diversification of land-based attractions for tourists to reduce pressure on marine colonies*. Terrestrial flora and fauna in Patagonia could provide an attractive alternative to tourists - as well as economic benefits to local communities - thereby furnishing another destination to increase visitors' stay in the region, diversify their visits, and thus regulate pressure on any one specific area.

Ranch-tourism based on this attraction is increasing, however, as yet no clear procedures and practices have been defined to ensure that this develops within the carrying capacity of these terrestrial environments, nor has the effectiveness of this diversification as a measure to support marine conservation been measured. The proposed alternative would demonstrate the feasibility of guanaco rearing near the coast as a tourist attraction and to provide raw material for developing woollen products for sale as tourist souvenirs as an alternative source of livelihood.

The proposed action would determine best practices to be used in guanaco rearing and the use of its wool and develop an integrated tourist attraction to visit these guanacos, artisan production of woollen products. This action would alleviate pressure of tourist visitation to marine sites. Additional global benefits would be accrued through demonstrating a commercial value of this endangered animal and thus reducing the presently high hunting pressures that it suffers in some Patagonian Provinces. Incremental expenditure is restricted to covering the cost of establishing this feasibility and developing procedures within the context of eco-tourism management.

The second recommendation to be applied to alleviate tourism visitation pressure *is improved reserve revenue management to optimise wildlife conservation*. The proposed alternative will undertake a pilot study to demonstrate the benefits accrued to wildlife conservation through enhanced revenue management providing immediate benefit to the wildlife of the site and establishing specific guidelines that can be replicated throughout Patagonia's marine and coastal protected areas. Incremental financing will be required only to establish and test guidelines in the pilot site.

5. Scope of Analysis

The scope of the analysis includes all the significant changes caused by the decision to undertake the alternative strategy within the project boundary which includes near-shore and artisan fisheries; protected

ANNEX 1

area and wildlife management; planned coastal ecotourism for biodiversity conservation; inter-provincial coordination for biodiversity conservation, management and planning, and monitoring; and corresponding capacity building activities.

TECHNICAL REVIEW

Argentina: Consolidation and Implementation of the Patagonia Coastal Zone Management Programme for Biodiversity Conservation

1. OVERALL IMPRESSION

The project concept is very sound and well articulated. The need for marine and coastal resource conservation and management for the Patagonia coast is well established and a highly worthy undertaking. The future of integrated coastal natural resources management which is viable and effective lies on the successful implementation of such programs as this one formulated for Argentina.

2. RELEVANCE AND PRIORITY

The relevance of this project with respect to biodiversity conservation is extremely high. There are few areas in the world with a more diverse and abundant marine and coastal fauna which is also unique in many respects. Within Argentina, the resource represented along the Patagonia coast are unsurpassed and constitute a significant national resource. The ecosystems and their species are indeed unique and can provide significant support to the development of Argentina if managed properly. The loss of these resources through poorly guided development would represent a tremendous loss to the country as well as the world. And, the economic consequences, although not fully measured at this time, would most likely be much more severe than presently anticipated.

3. BACKGROUND AND JUSTIFICATION

The background information is quite complete in that the proposed phase two of the project seems to build on the preliminary research and documentation of the resource base, ecosystem dynamics and management issues of primary importance. The project brief indicates that resource profiling and mapping is complete although without seeing these documents, it is difficult to evaluate their completeness and usefulness for coastal management planning. It also appears that the project fits well within national priorities and commitments. The degree of threat to biodiversity is explained well and reasonable given current development trends in Argentina and elsewhere in coastal areas. Additional background information which would assist to justify this project and will be needed to build political support and public commitment are suggested as follows (several of these are said to exist):

- a.** Maps showing the locations of all resource and their interactions as natural systems and showing use patterns of people and the potential impacts of all human activities in the area of concern;
- b.** A detailed coastal environmental profile of the entire area which fully explains the environmental, biophysical, socio-economic, legal and institutional situation in relation to potential management regimes.
- c.** A series of cost-benefit calculations which quantify the various costs and benefits related to the potential loss or sustainable use of the primary coastal resources. Such an analysis should include environmental, socio-economic and financial perspectives on the long term conservation of selected areas of concern. This need to be done for at least the proposed protected areas and their resources base in relation to external benefits of fisheries and other ecological benefits plus potential revenues from tourism and other sources.

4. SCIENTIFIC AND TECHNICAL SOUNDNESS

The overall approach of the project is grounded in experience from other coastal zone management projects whereby certain basic zone management is as much of an art as a science. There is a growing body of knowledge which suggests that several phases over 5 to 10 years are required to make significant progress. This project which is embarking on an institutional building and implementation phase is well poised to progress given the background work of Phase One. Several ingredients which could contribute to its success are mentioned above and will help prove that scientific and technical considerations are being fully considered and being improved as the program builds momentum. Good coastal environmental profiles and sound environmental and economic justifications based on good research will always help to design such a project. And, this information, if presented appropriately, will help to convince politicians and other decision makers of the importance of the project.

5. OBJECTIVES

The objectives are comprehensive and support the needs of the project during this phase of work but they lack indicators of completion. ***(Note: These will be provided in the full-scale Project Document)***. It would be useful to draft indicators which measured partial and total completion for each objective. This will help determine whether the objectives are achievable and whether the activities are appropriate to complete the objectives. The objectives as stated are fully justified through explanation but it is not clear if they can be achieved given the level of funding and the activities described. There is some concern that the objectives are too broad and not focused enough to be achieved as stated (see below).

6. ACTIVITIES

Output 1.3: Strengthened community stakeholder participation...

It would be useful here to better explain how the stakeholders will be involved in the coastal management planning process. Although the stated objective is to raise awareness through involvement in public hearing and monitoring, the ongoing process of planning needs a mechanism for local stakeholders to participate. This can of course be done through public hearings but there may be other means also such as: Informal community forums, group interviews, participatory mapping, random samples of opinion etc. among community groups. More education about benefits from management are constantly required to augment support for the process and its potential returns. ***(Note: These suggestions have been incorporated in the revised version of the Project Brief with others to be fully detailed in the full-scale Project Document)***.

Output 1.4: Long -term funding mechanism established...

Trust funds might best be set up for sub-regions of the Patagonia Management area. This would provide more responsive involvement of the fund managers with the needs of coastal management. A fund for each protected area initially may be appropriate to test its operation. A broader-based fund could be set up later. Experience indicated that trust funds operate more effectively when they are tied to the immediate needs of a geographic management area or a well-defined issue of concern.

Output 4.1: Four projects demonstrating the feasibility of reducing the “reject” and “by-catch” rate in near shore fishing.

Although this set of activities may be useful in reducing waste, it is nowhere indicated that sustainable yields of the various fisheries have been determined. In terms of conservation of the large marine mammals and birds of importance to Patagonia, probably one of the most important ecological considerations is their food supply. It is reasonable to assume that increased fishing pressure will directly compete with the food requirements of the wildlife being conserved. An ecological model which delineates the parameters of the food web in relation to fisheries exploited by humans as well as the wildlife of concern will be important in long term management. Thus, the activities under output 4.1 are seen as short term stop gap measures which will not guarantee a long term sustainable fishery regime from either the perspective of the fishing industry or that of the marine conservationist (e.g. consuming wildlife).

Output 4.2: One pilot project testing the feasibility of increasing visitation fees to improve conservation management in reserves.

I suggest that more than one pilot be tested. The lessons learned from this real-life test will more than outweigh the increased cost. One of the keys to success integrated coastal management is to begin field implementation trials early in the process. **(Note: This recommendation is addressed in the revised version of the Project brief - see Annex 3).**

Output 4.3: Inter-Provincial Ecotourism Policy...

The activities under this output are weak. It is not clear how a strong inter-provincial body will be formed which has national support. A key to its success will be a joint partnership with the national government in a politically supportive environment. **(Note: This has been addressed in the revised version of the Project brief).**

7. PARTICIPATORY ASPECTS

This was addressed briefly above. Generally, the project could gain from more pilot tests and on-the-ground work which will inherently involve local stakeholders in the planning and implementation process. Sustainable use and management is more likely to evolve and continue through a participatory process with major stakeholder roles in the planning and implementation phases. This implies that stakeholders must be part of a learning and management process. It also implies that the pilot tests should be accomplished at a scale which can practically include community groups in a meaningful manner from their perspective and not only that of the project implementers. **(Note: Addressed in the revised version of the Project brief - see output 3.1).**

8. GLOBAL BENEFITS

The project brief very adequately lists the global environmental benefits from the project. These are clear and fairly universally accepted as agreed through the Convention on Biodiversity and Agenda 21. What may not be so clearly stated or documented are the real tangible benefits to the stakeholders of the Patagonia coastal area. Although we may assume that local benefits are evident, lower levels of income and education will drastically change how a stakeholder sees the world and the importance of their natural resources and especially those resources (species and ecosystems) of conservation concern. **(Note: Addressed through Output 1.3 of the revised version of the brief).**

9. GEF STRATEGIES AND PLANS

ANNEX 2

The project clearly fits within the context of GEF goals, operational strategies and programme priorities. Important aspects of the Biodiversity Convention are covered as well because of the high priority on conservation given to the Patagonia coastal resources.

10. REPLICABILITY

The replicability of the project will of course depend to a large degree on its success. Since it is on a strong course from Phase One, it should produce some replicable success. The various management bodies being set up are essential to success and how it can be replicated. If the bodies are active and become sustainable, this will provide a good model to guide coastal management in other similar areas in Argentina and elsewhere. Since the social, economic, environmental and political context for coastal management projects almost always varies from one country to another, it is presumptuous to predict how easy it will be to learn from the lessons of Patagonia. But, having said this, it appears that a somewhat similar environmental, social and economic context exists in other parts of South America such as in Chile where similar model could work. It would make sense to combine the Tierra del Fuego efforts with Chile for this region since both countries have a stake in the area. There are similarities with parts of the African coast as well.

11. CAPACITY BUILDING

There is almost never enough capacity building to make such projects totally sustainable within the county of concern. The problem lies not so much with the effort directed at capacity building through training , education and other means. Rather, capacity building relates more to learning by doing and by acceptance of a program from the outset because of a strong local and national interest and self desire (will). It is essential that the Argentine government fully endorse the project both at the national and provincial levels. This will help insure that capacity is achieved. National and provincial budgets have to be dedicated to the work as counterpart to that of GEF. Motivated persons from government and non-government institutions must be active in the project from the beginning. The training as outlined in the proposal is adequate if used effectively within a supportive context.

12. PROJECT FUNDING

The proposed level of funding is adequate if there are sufficient counterpart contributions from local sources in terms of funds, goods, personnel, participation and political will.

13. TIME FRAME

Five years is a good time frame for the project. The work plan needs to be detailed on a yearly basis to provide adequate guidance to the project. The objectives can be attained if some modifications are made to focus activities as suggested above.

14. SECONDARY ISSUES

a. There could be linkages to GEF work in international waters because of the fishery management issues of concern which have implications for global fishing fleets in the southern Atlantic Ocean near Patagonia.

b. Linkages to other programs and action plans are not known.

c. The project is very innovative in that it builds on the experience of integrated coastal management (ICM) programs in other parts of the world. Since ICM is a new approach to natural resource management and conservation which demands multi-sectoral and multi-disciplinary collaboration to be effective, it is not a simple undertaking. This project attempts to bring in current thinking on ICM which is innovative by definition.

15. ADDITIONAL COMMENTS

This is a good project and should be funded. If there is one aspect which could be improved from the outset, it is to include more emphasis on the value of conservation in economic terms. As we see the world's environment deteriorate, we realize more and more that this is not only an aesthetic loss but a monumental practical and economic loss. It affects our daily well being and becomes increasingly costly to repair. Patagonia is no exception and should be highlighted more in an economic context. Although the ecological resources of Patagonia are not all easy to value in economic terms, the effort will show worth in more than aesthetic terms. This will also assist to convince politicians about the need for such programs both in Argentina and elsewhere.

Critical Areas for Marine and Coastal biodiversity Conservation

Based on Pilot Phase Project baseline information, recommendations of the Protected Areas Programme, and consultations with local stakeholders (who will form part of the Protected Area Working Groups, described in Objective 3, above), the following constitute the critical areas for conservation of marine and coastal biodiversity, based on biodiversity value and degree of vulnerability and threat. Please note that of the critical areas identified below, seven have been selected as Priority Protected Areas for specific management and conservation actions described in Annex 3.

Province of Rio Negro:

San Antonio Oeste and adjacent areas. (Priority protected area). This is a major coastal wetland of great importance to migratory shorebirds, bivalves and artisan fisheries. Parts have reserve status but have no enforcement provisions. No management plan exists and critical areas (breeding, nesting, foraging routes) are not properly demarcated. In the absence of a management plan and proper demarcation of restricted and multiple-use zones, to guide future development, much of the area is likely to be significantly compromised by infrastructural development and industrial pollution.

Punta Bermeja. (Priority protected area). An important colony of sea lions now receiving as many as 50,000 visitors. While the area has Provincial Reserve status, and has wildlife rangers, no management plan or updated demarcations exists. Furthermore, the influx of tourists has not been properly managed to either assess the carrying capacity of the area, or devise the most appropriate type of conservation-based tourism to ensure financial returns for self-sustaining conservation. Monitoring activities to evaluate the status of biodiversity on an on-going basis are also non-existent limiting the ability to evaluate impacts of developmental activities in near-by areas and the corresponding measures required to effectively address them.

Province of Chubut:

The great majority of critical wildlife areas with tourist potential are found in Chubut, which has an advantageous infrastructure and climate).

Peninsula Valdes. (Priority protected areas) including *Golfo San Jose, Punta Buenos Aires, Punta Norte, Caleta Valdes, Punta Delgada and Punta Piramide*, correspond to the "Serengeti" of Patagonia. The coastal bays and inlets, broad beaches and cliffs are the center of the regions's breeding populations of southern elephant seals (the only continental colony in the world), the major breeding congregations of right whales, as well as substantial populations of other cetaceans, major rookeries of southern sea lions, colonies of cormorants, penguins, terns and other sea birds as well as transient populations of many migratory shorebirds. It is the center of Patagonian tourism and has a well-established wildlife ranger system. In spite of its critical biodiversity biomass, the areas comprised in Peninsula Valdez - although conferred with protected area status - have no management plans. Reserve and fishing areas are inadequately demarcated and rangers are inadequately trained. Furthermore, the spectacular terrestrial fauna of Darwin's rheas, Patagonian cavies and guanacos is almost totally unprotected. Area wildlife vulnerable to oil spills and overfishing.

Golfo Nuevo and Punta Loma. (Priority protected areas). This area includes an exceptionally accessible concentration of southern right whales (center for whale-viewing with tourism over 40,000/annum) and a spectacular near city wintering population of southern sea lions. While protected by provincial wildlife

ANNEX 3

rangers, the area has no management plan or scientifically adequate monitoring programme. Area wildlife vulnerable to oil spills and overfishing.

Cabo dos Bahias. This provincial reserve and the adjacent areas to the south, such as Bahia Bustamante, are a major concentration of sea birds and marine mammals. Cabo dos Bahias had one of the last fur seal colonies in Chubut (now lost). It has a ranger station and is guarded. There is no management plan and demarcation, monitoring and ranger training are inadequate. The area's wildlife is vulnerable to oil spills and overfishing.

Area from Isla Pinguino to Bahia Laura. (Priority protected areas). This is a major concentration of coastal biodiversity and wildlife (sea lions, six species of seabirds). It includes Punta Buque, a presently remote and unusually lovely seabird (large penguin colony) and mammal colony site. Although Isla Pinguino and Bahia Laura are "paper reserves" Punta Buque has neither reserve status nor protection of any kind. Minor kelp and guano harvesting is taking place there. This area is vulnerable to oil spills and overfishing and has suffered badly in recent spills.

Bahia San Julian. A major artesanal fishery operates in this area. It is also home to one of Patagonia's larger penguin colonies (200,000) and unusually scenic landscape. A small sea lion colony, cliff nesting cormorants, and a significant population of guanacos make the area of special interest. Nominally a provincial reserve, Monte Leon and the estancia immediately north of it are now expected to be declared the first coastal National Parks in Argentina. A preliminary management plan has been developed and coordinated with the work of the UNDP/GEF Pilot Phase Project. This region is also vulnerable to oil spills and overfishing.

Cabo Virgenes. The closest marine bird colony to the city of Rio Gallegos, Cabo Virgenes provides a nesting beach for 180,000 Magellanic penguins directly opposite raring off-shore Chilean oil rigs. There were 5,000 visits in 1995. The area is extremely vulnerable to oil spills.

Isla Rasa. Recently discovered by the UNDP/GEF Pilot Phase Project, the island is major colony of southern fur seals (12,000). Area wildlife vulnerable to oil spills and overfishing, unprotected, monitoring or managed.

Isla Leones. Major sea lion and penguin colony. A former coast guard station, this area could lend itself to protection and monitoring efforts. Area wildlife vulnerable to oil spills and overfishing.

Bahia Melo to Isla Quintana. This long area of spectacular Patagonian coast includes some forty islands where 13 species of sea birds nest along with significant numbers of sea lions. The cormorants colonies are exploited for guano and the bays are a major producer of kelp. Area wildlife vulnerable to oil spills and overfishing and it is the site of a fishery which is inadequately demarcated with regard to its impact upon wildlife and biodiversity.

Province of Santa Cruz: Although this province has spectacular wildlife assets, an almost complete lack of conservation and management infrastructure and less reliable weather makes their exploitation for tourism difficult at this time.

Monte Loayza. (Priority protected area). This area counts with the largest sea lion colony on the mainland coast. Characterized by unusual rock formations, it holds breeding sites for six species of marine seabirds and large coastal populations of guanacos and Darwin's rheas. The area, while designated as a reserve, is inadequately demarcated and has no management plan. Vulnerability to overfishing from near-shore fisheries

is a growing concern, particularly in view that effective monitoring programmes to measure impact are non-existent.

Ria Deseado. (Priority protected area). Exceptionally spectacular and important wildlife area beginning to be compromised by unplanned development of Puerto Deseado construction and municipal wastes. Eight species of marine birds nest along the Ria's shores and cliffs and the area is also important for unusual cetaceans (e.g. Commerson's dolphin) for migratory shorebirds and for access to nearby Isla Pinguino, the only colony of rockhopper penguins along the Patagonian coast. Some 9,000 tourists visited the area in 1994. in the absence of managThis area is also vulnerable to oil spills and overfishing.

Cabo Blanco. Last colony of southern fur seals breeding directly on coast, ut small. Five species of sea birds and southern sea lions on spectacular coastal rock formation adjacent to manned lighthouse (faro) . Area wildlife vulnerable to oil spills and overfishing. Easily accessible from Puerto Deseado. A paper reserve with no management plan, rangers, reserve or demarcation.